



# FioranoMQ<sup>®</sup>

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## JMX API Guide

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# FioranoMQ JMX API's

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FioranoMQ exposes a lot of JMX APIs which the user can invoke at runtime to change the configuration and behavior of the MQ server in online mode.

These APIs can be executed either from Fiorano Studio or from a Java program as shown in the samples provided under <FIORANO\_HOME>/fmq/samples/JMX/

The sample code snippet below shows the basic steps for creating a JMX connection and invoking an operation.

```
JMXConnector connector = JMXConnectorFactory.newJMXConnector(address,
    environment);

MBeanServerConnection conn = connector.getMBeanServerConnection();

ObjectName mem = new ObjectName (
    "Fiorano.etc:ServiceType=AdminService,Name=AdminService");

Object returnValue = conn.invoke(mem, "printServerInfo", new Object [] {}, new
String [] {});
```

This document lists the set of MBeans exposed through JMX, and the attributes and operations within the MBean which the user may want to invoke.

# Chapter 1: Loggers

---

## 1.1 MBeans related to Logger

From the above sample code the MBean can be initialized by the following string representation of the object name.

```
Fiorano.Logger:ServiceType=Logger,Name=%LoggerName%
```

Here the **%LoggerName%** refers to the name of the logger for a particular MBean.

### Valid Logger Names are:

- Fiorano.Deprecated.FMQPublishSubscribeServices
- Fiorano.Deprecated.RDBMS\_RECONNECT
- Fiorano.FMQ.Events.ResourceManager
- Fiorano.Deprecated
- Fiorano.FMQ.Events.Tcf
- Fiorano.FMQ.Queues.PUSH
- Fiorano.FMQ.Events.QueueSender
- Fiorano.FMQ.Queues.PUSH.Message
- Fiorano.Deprecated.XA
- Fiorano
- Fiorano.JMX.Listeners
- Fiorano.JMX.Operations
- Fiorano.FMQ.Events.QueueConnection
- Fiorano.FMQ.Events.TopicConnection
- Fiorano.Deprecated.GMS
- Fiorano.Services.DefaultMQObjects
- Fiorano.FMQ.Operations
- Fiorano.Deprecated.FMQNamingManagerServices
- Fiorano.FMQ.Topics.Connection.ConConsumer.Manager
- Fiorano.Deprecated.FMQAdminServices
- Fiorano.FMQ.Events.TopicPublisher
- Fiorano.Deprecated.ExMessage
- Fiorano.Deprecated.FMQConnectionManagerServices
- Fiorano.FMQ.Events.Dmq
- Fiorano.Deprecated.ThreadManager

- Fiorano.FMQ.Topics.MsgFlow.Publish
- Fiorano.Deprecated.ClientLogManager
- Fiorano.FMQ.Topics.Connection.ConConsumer
- Fiorano.FMQ.Topics.Connection
- Fiorano.Deprecated.QGMS
- Fiorano.Deprecated.MemoryManager
- Fiorano.Deprecated.ConnectionCreation
- Fiorano.FMQ.Topics.TCF
- Fiorano.FMQ.Events
- Fiorano.FMQ.Queues
- Fiorano.Deprecated.Snooper
- Fiorano.Deprecated.CBR
- Fiorano.Deprecated.SocketRead
- Fiorano.FMQ.Topics
- Fiorano.Deprecated.StubManager
- Fiorano.Deprecated.Cache
- Fiorano.Deprecated.Realm
- Fiorano.FMQ.Queues.POP
- Fiorano.Deprecated.FMQPointToPointServices
- Fiorano.FMQ
- Fiorano.Services
- Fiorano.FMQ.Events.Topic
- Fiorano.FMQ.Queues.COMMIT
- Fiorano.Deprecated.Expiration
- Fiorano.Deprecated.LogError
- Fiorano.Deprecated.PubSubSlowDown
- Fiorano.FMQ.Topics.MsgFlow
- Fiorano.Deprecated.NamingManager
- Fiorano.FMQ.Queues.Browse
- Fiorano.Deprecated.RouteManagerService
- Fiorano.FMQ.Events.Qcf
- Fiorano.JMX
- Fiorano.FMQ.Topics.MsgFlow.Message
- Fiorano.FMQ.Lookup
- Fiorano.Deprecated.PurgeDeliveredPersistentMessage
- Fiorano.Deprecated.RDBMS

- Fiorano.FMQ.Events.QueueReceiver
- Fiorano.Deprecated.FMQThreadManagerServices
- Fiorano.JMX.Attributes
- Fiorano.Deprecated.Consumer
- Fiorano.FMQ.Ping
- Fiorano.Deprecated.Administrator
- Fiorano.Deprecated.JobManager
- Fiorano.FMQ.Events.Queue
- Fiorano.Deprecated.ConnectionManager
- Fiorano.Deprecated.ConnectionClose
- Fiorano.FMQ.Events.TopicSubscriber
- Fiorano.Services.ObjectManager

## 1.2 Operations of Logger

### 1.2.1 Adding Appenders

**Syntax:**

```
public void addAppender(fiorano.jms.log.def.config.AppenderConfig config) throws FioranoException
```

**Description:** Adds an appender to the current logger, by default there are no appenders.

**Return Type:** null

**Parameters:** AppenderConfig → contains the configuration of the Appender.

**Constructor:** public AppenderConfig()

Major Properties that can be set by the user for the AppenderConfig are:

- **AppenderType** → Type of the Appender, possible values are console and file.

```
public void setAppenderType(String str)
```

- **AppenderName** → Name of the Appender

```
public void setAppenderName(String name)
```

- **LogPattern** → This is Log4J specific format for printing logs. Please refer to Log4J documentation for more details.

**Example:** { %F, %M } %-5p [%c{1}] %m%n will print CodeFileName, MethodName where the log event is generated

```
public void setLogPattern(String log)
```

- **PrintTarget** → Applicable to Console appender only.

**Example:** System.out and System.err

```
public void setPrintTarget(String str)
```

- **Threshold Level** → Log events logged above this log level will not be received/logged by this Appender

```
public void setThresholdLevel(int level)
```

- **Minimum Filter Level** → Minimum Filter level for Log events. Events logged below this log level will not be received/logged by this Appender

```
public void setMinFilterLevel(int level)
```

- **Maximum Filter Level** → Maximum Filter level for Log events. Events logged above this log level will not be received/logged by this Appender

```
public void setMaxFilterLevel(int level)
```

- **Filter Pattern** → Regex based string filter pattern for filtering the log events received by this Appender. Only Events which matches the filter criteria are logged.

```
public void setFilterPattern(String str)
```

- **File Name** → Log file name. This file is by Rolling File Appender for logging log events. Eg mqout.log and mqerr.log

```
public void setFileName(String filename)
```

- **Maximum File Size** → Maximum size of a log file in bytes. Please refer to log4j documentation for more details.

```
public void setMaxFileSize(String max)
```

- **Maximum BackUp Index** → Maximum number of log files to be used.

**Example:** setting it to 2 , will have 3 log files. file.log, file1.log, file2.log

```
public void setMaxBackupIndex(int max)
```

- **Is Append** → File logging mode(Append/Not append).

If true, log events are appended to already present logs in file(s).

```
public void setIsAppend(boolean append)
```

## 1.2.2 Adding File Appender

### Syntax:

```
public void addFileAppender (String name, String fileName, String maxFileSize, int maxBackupIndex, String pattern, boolean append, int thresholdLevel, int minLevel, int maxLevel, String filterPattern) throws FioranoException
```

**Description:** Adds a File appender to this logger

**Return:** null

### Parameters:

- **name:** Name of the Appender

- **fileName:** Log file name. This file is by Rolling File Appender for logging log events.  
**Example:** server.log
- **maxFileSize:** Maximum size of a log file in bytes. Please refer to log4j documentation for more details.
- **MaxBackupIndex:** Maximum number of log files to be used.  
**Example:** 2 means, we will have 3 log files. file.log, file1.log, file2.log
- **pattern:** This is Log4J specific format for printing logs. Please refer to Log4J documentation for more details.  
**Example:** {%F, %M} %-5p [%c{1}] %m%n will print CodeFileName, MethodName where the log event is generated
- **append:** File logging mode(Append/Not append).  
If true, log events are appended to already present logs in file(s).
- **thresholdLevel:** Log events logged above this log level will not be received/logged by this Appender
- **minLevel:** Minimum Filter level for Log events. Events logged below this log level will not be received/logged by this Appender
- **maxLevel:** Maximum Filter level for Log events. Events logged above this log level will not be received/logged by this Appender
- **filterPattern:** Regex based string filter pattern for filtering the log events received by this Appender. Only Events which matches the filter criteria are logged.

### 1.2.3 Adding Console Appenders

#### Syntax:

```
public void addConsoleAppender(String name, String pattern, String target, int thresholdLevel, int minLevel, int maxLevel, String filterPattern) throws FioranoException
```

**Description:** Adds a console appender to this logger

**Return Type:** Null

#### Parameters:

- **name:** Name of the Appender
- **pattern:** This is Log4J specific format for printing logs. Please refer to Log4J documentation for more details.  
**Example:** {%F, %M} %-5p [%c{1}] %m%n will print CodeFileName, MethodName where the log event is generated
- **target:** Applicable to Console appender only.  
**Example:** System.out and System.err
- **thresholdLevel:** Log events logged above this log level will not be received/logged by this Appender



- **minLevel:** Minimum Filter level for Log events. Events logged below this log level will not be received/logged by this Appender
- **maxLevel:** Maximum Filter level for Log events. Events logged above this log level will not be received/logged by this Appender
- **filterPattern:** Regex based string filter pattern for filtering the log events received by this Appender. Only Events which matches the filter criteria are logged.

### 1.2.4 Clearing Logs

**Syntax:** `public void clearLogs(String appenderName) throws Exception`

**Description:** Clears all the logs for a particular appender

**Return Type:** Null

**Parameters:**

- `appenderName:` Name of the appender

### 1.2.5 Removing Appenders

**Syntax:** `public void removeAppender(String name)`

**Description:** Removes any registered appender with this logger

**Return Type:** Null

**Parameters:**

- `name:` Name of the appender

### 1.2.6 Listing Appenders

**Syntax:** `public HashMap listAllAppenders()`

**Description:** Lists all the registered Appenders

**Return Type:** HashMap with key as Name of the appender and Value as the corresponding Appender Config.

**Parameters:** No parameters required.

### 1.2.7 Fetching Details of Appenders

**Syntax:** `public HashMap fetchAppenderDetails(String appenderName)`

**Description:** Fetches the details of a particular appender

**Return Type:** HashMap with Name as the property of the AppenderConfig and Value as the property Value

**Parameters:**

- appenderName: Name of the appender

## 1.2.8 Fetching Logs

**Syntax:**

```
public String fetchLogString(String appenderName, int fileNo) throws FioranoException
```

**Description:** Fetch logs from the given file No for given File Appender

**Return Type:** Logs Present in the given file No.

**Parameters:**

- appenderName → name of the appender
- fileNo → Number of the file

**Syntax:**

```
public String fetchLogString(String appenderName, int fileNo, int startIndex, int  
lastIndex) throws FioranoException
```

**Description:** Fetch the out logs from the given file No for given File Appender within specified indexes

**Return Type:** Logs Present in the given file number within the indexes specified.

**Parameters:**

- appenderName → Name of the appender
- fileNo → Number of the file
- startIndex → Starting Index
- lastIndex → Last Index

**Syntax:**

```
public int logFilesCount(String appenderName) throws FioranoException
```

**Description:** Gets the no of files used for logging by given File Appender

**Return Type:** Number of files used.

**Parameters:**

- appenderName → name of the appender

### 1.2.9 LogLevel

The MBean should be initialized by the following string representation of the object name.

**Syntax:**

```
Fiorano.Loggers:ServiceType=Logger,Name=%LoggerName%,type=config
```

**Description:** level of logging. No log event will be generated for logging statement above this level.

**Type:** int

**Access:** RW

**Default Value:** -1.

# Chapter 2: JNDI

---

MBeans Related to JNDI Services

`Fiorano.jndi:ServiceType=NamingManager,Impl=FILE,Name=NativeFileNamingManager`

## 2.1 Operations of JNDI Services

### 2.1.1 Looking up Administered Objects

**Syntax:**

```
public Object lookup(String name) throws FioranoException
```

**Description:** Looks up an Object in the server.

**Return Type:** Metadata of the looked up Object

**Parameters:** Name of the object.

```
Fiorano.jndi:ServiceType=NamingManager,Impl=FILE,Name=NativeFileNamingManager,type=con  
fig
```

## 2.2 Attributes for JNDI

### 2.2.1 AdminObjectFileName

**Description:** Name of the file used for storing/managing AdminObject Names

**Type:** String

**Access:** RO

**Default Value:** admin.dat

### 2.2.2 AdminObjectBackupFilename

**Description:** Name of the file used for backup of the admin file during defragmentation

**Type:** String

**Access:** RO

**Default Value:** admin~1.dat

### 2.2.3 AdminObjectDefragFilename

**Description:** Name of the file used for defragmentation of the admin file

**Type:** String

**Access:** RO

**Default Value:** admin~2.dat

### 2.2.4 Path

**Description:** Root path for this naming manager

**Type:** String

**Access:** RW

**Default Value:** (Current directory)

### 2.2.5 DefragmentationLowerThreshold

**Description:** Minimum number of deleted entries for triggering auto-defragmentation of AdminObjectManager

**Type:** int

**Access:** RW

**Default Value:** 10

### 2.2.6 DefragmentationUpperThreshold

**Description:** Maximum number of deleted entries after which auto-defragmentation of AdminObjectManager is guaranteed.

**Type:** int

**Access:** RW

**Default Value:** 15

### 2.2.7 DefragmentationPercentage

**Description:** Threshold percentage for auto-defragmentation during startup, if the number of deleted entries fall between the above two thresholds.

**Type:** int

**Access:** RW

**Default Value:** 20

# Chapter 3: Connection Manager

---

`Fiorano.socketAcceptors.port1:ServiceType=ConnectionManager,Name=ConnectionManager`

## 3.1 Attributes of Connection Manager

### 3.1.1 NumberOfClientConnections

**Description:** Current Number of connections created to this connection Manager.

**Type:** int

**Access:** RO

**Default Value:** 0

## 3.2 Operations on Connection Manager

### 3.2.1 Listing Clients

#### Syntax

```
public HashMap listAllClients() throws FioranoException
```

**Description:** Lists all Clients for this Connection Manager.

**Return Type:** HashMap with the key as the clientID and the value as the Connection Type, that is, PTP, PubSub, and so on.

```
Fiorano.socketAcceptors.port1:ServiceType=ConnectionManager,Name=ConnectionManager.type=config
```

## 3.3 Attributes of Connection Manager Config

### 3.3.1 Default

**Description:** Specifies whether this Connection Manager is default. All connection factories will contain the URL information from this Connection Manager.

**Type:** boolean

**Access:** RW

**Default Value:** true

### 3.3.2 CFNameAppender

**Description:** suffix for the Name of ConnectionFactory created for ConnectionManager.

**Type:** String

**Access:** RW

### 3.3.3 ReaderCacheDisabled

**Description:** Boolean indicating whether for this connection cache is created on read socket or not.

**Type:** boolean

**Access:** RW

**Default Value:** false

### 3.3.4 TCPWindowSize

**Description:** Used TCP window size in three way handshaking process for connection creation.

**Type:** long

**Access:** RW

**Default Value:** 133120

### 3.3.5 HandshakeInWorkerThread

**Description:** Boolean indicating whether HandShaking process is done in accepting the connection request from the client or in socket Initialization context.

**Type:** boolean

**Access:** RW

**Default Value:** true

### 3.3.6 MagicTimeout

**Description:** Time set as a socket Timeout for created socket. If any request does not arrive on the socket within this interval then socket cleanup is done.

**Type:** int

**Access:** RW

**Default Value:** 60000

### 3.3.7 Port

**Description:** Port used for binding the socket on server startup

**Type:** int

**Access:** RW

**Default Value:** 1856

### 3.3.8 Protocol

**Description:** Protocol used for establishing the connection between clients and server. Legal values are TCP, HTTP, SUN\_SSL PHAOS\_SSL, HTTPS\_SUN, HTTPS\_PHAOS, and LPC.

**Type:** String

**Access:** RW

**Default Value:** TCP

### 3.3.9 UseNagle

**Description:** Boolean indication whether Nagel Algo is used in creating the socket or not.

**Type:** boolean

**Access:** RW

**Default Value:** false

### 3.3.10 MonitoringRequest

**Description:** Get the monitoring request ID in validation of exchanged communication versions in connection establishment.

**Type:** int

**Access:** RW

**Default Value:** 13

### 3.3.11 MonitoringResponse

**Description:** Get the monitoring request response in exchange of communication versions in connection establishment



**Type:** String

**Access:** RW

### 3.3.12 EnforceJsseAuthentication

**Description:** Check whether authentication should be done for JSSE client requests accept by this server or not

**Type:** boolean

**Access:** RW

**Default Value:** false

### 3.3.13 MaxSocketConnections

**Description:** maximum number of socket connections that can be created.

**Type:** int

**Access:** RW

**Default Value:** 500

### 3.3.14 MaxClientConnectionsCount

**Description:** The maximum number of client connections for this Connection manager. A value of -1 indicates no upper limit.

**Type:** int

**Access:** RW

**Default Value:** 1024

### 3.3.15 AdminConnection

**Description:** Serving the client requests check whether this connection is a adminConnection or a Normal Connection

**Type:** boolean

**Access:** RW

**Default Value:** false

### 3.3.16 Path

**Description:** Root directory in which this connection manager searches for digital signatures for handling secure connections

**Type:** String

**Access:** RW

**Default Value:** certs

### 3.3.17 ServerAddress

**Description:** InetAddress of the local machine that the MQServer needs to bind to This option is very useful when MQServer is executed on multi-homed machines.

**Type:** String

**Access:** RW

### 3.3.18 HandShakingDisabled

**Description:** Boolean representing whether handshake is disabled on connection creation or not

**Type:** boolean

**Access:** RW

**Default Value:** false

### 3.3.19 ManagerClassName

**Description:** Class Name of the Security Manager for wrapping TCP/HTTP communication. This is an implementation of IExSecurityManager. One can write and plug-in his server security manager. Possible default values are `fiorano.jms.ex.sm.def.DefaultJSSESecurityManager`, `fiorano.jms.ex.sm.def.DefaultPhaosSecurityManager`

**Type:** String

**Access:** RW

**Default Value:** `fiorano.jms.ex.sm.def.DefaultJSSESecurityManager`

# Chapter 4: Jmx

---

This module is related to jmx connection and its all dependencies like jmx engine and notifications.

```
Fiorano.jmx.connector:ServiceType=JMXConnector, Impl=RMI, Name=RMIBased  
JMXConnector, type=config
```

## 4.1 Attributes for RMIBasedJMXConnector

### 4.1.1 RMIServerPort

**Description:** Port on which Mx4J RMIConnector will bind.

**Type:** int

**Access:** RW

**Default Value:** 1858

```
Fiorano.jmx.engine:ServiceType=JMXEngine, Name=ClientJMXEngine, type=config
```

## 4.2 Attributes for ClientJMXEngine

### 4.2.1 SecurityProtocol

**Description:** Secure protocol used in case Server to which this CS will connect is running on secure protocol. For example, PHAOS\_SSL, SUN\_SSL, NO\_SECURITY.

**Type:** java.lang.String

**Access:** RW

**Default Value:** NO\_SECURITY

### 4.2.2 Protocol

**Description:** Transport protocol used for making connection to JMS Server. Default is LPC, other values can be TCP and HTTP.

**Type:** java.lang.String

**Access:** RW

**Default Value:** LPC

### 4.2.3 SecurityManagerClass

**Description:** Security manager class which provides an implementation of IFMQSecurityManager

**Type:** java.lang.String

**Access:** RW

**Default Value:** NO\_SECURITY

### 4.2.4 QueueConnectionFactory

**Description:** QueueConnectionFactory used by Connector Server. It can be either LPC enabled or normal. LPC Enabled connectionfactory is used when Connector server connects to the local server.

**Type:** java.lang.String

**Access:** RW

**Default Value:** primaryLQCF

### 4.2.5 ServerPort

**Description:** Port of JMS Server to which this ConnectorServer connects.

**Type:** int

**Access:** RW

**Default Value:** 1856

### 4.2.6 ServerAddress

**Description:** IP of FioranoMQ Server to which this ConnectorServer connects. Note: ServerAddress should be localhost/LocalIP/MachineName' if using LPC QueueConnectionFactory.

**Type:** java.lang.String

**Access:** RW

**Default Value:** localhost

### 4.2.7 Username

**Description:** User name used for making connection to JMS server.

**Type:** java.lang.String

**Access:** RW

**Default Value:** admin

#### 4.2.8 Password

**Description:** User name used for making connection to JMS server.

**Type:** java.lang.String

**Access:** WO

**Default Value:** null

#### 4.2.9 ConnectQueueName

**Description:** Connect Queue name on which Connector server will listen for connect request.

**Type:** java.lang.String

**Access:** RW

**Default Value:** JMX\_CONNECT\_QUEUE

#### 4.2.10 RequestQueueName

**Description:** Request Queue name on which Connector Server will listen for jmx queries.

**Type:** java.lang.String

**Access:** RW

**Default Value:** JMX\_SERVICE\_QUEUE

#### 4.2.11 NotifQueueName

**Description:** Notification Queue name on which Connector Server will send notification.

**Type:** java.lang.String

**Access:** RW

**Default Value:** JMX\_CONNECT\_QUEUE

#### 4.2.12 ConnectQueueName

**Description:** Connect Queue name on which Connector server will listen for connect request.

**Type:** java.lang.String

**Access:** RW

**Default Value:** JMX\_CONNECT\_QUEUE

## Chapter 5: Etc

---

This module contains the objects managers like adminManager, Resource Manager, Thread Manager and all general operations performed by the server.

### 5.1 Job Managers

```
Fiorano.etc.jobManagers:ServiceType=JobManager, Impl=Impl2, Name=TopicDemuxJobManager
```

#### 5.1.1 Attributes of TopicDemuxJobManager

##### 5.1.1.1 OverloadTime

**Description:** Time at which overload is detected.

**Type:** long

**Access:** RO

**Default Value:** -1

##### 5.1.1.2 ThreadsAtOverloadInstance

**Description:** Number of threads at which system panicked last time.

**Type:** int

**Access:** RO

**Default Value:** -1

```
Fiorano.etc.jobManagers:ServiceType=JobManager, Impl=Impl2, Name=TopicDemuxJobManager, type=config
```

#### 5.1.2 Attributes of TopicDemuxJobManager Config

##### 5.1.2.1 MinimumJobWorkers

**Description:** Minimum number of job workers always present in the system.

**Type:** int

**Access:** RW

**Default Value:** 4

### 5.1.2.2 MaximuJobWorkers

**Description:** Maximum number of job workers that can be present at any instance.

**Type:** int

**Access:** RW

**Default Value:** 40

### 5.1.2.3 JobsPerWorker

**Description:** Number of jobs used per worker

**Type:** int

**Access:** RO

**Default Value:** 4

Fiorano.etc.jobManagers:ServiceType=JobManager,Impl=Impl2,Name= PTPWriteJobManager

## 5.1.3 Attributes of PTPWriteJobManager

### 5.1.3.1 OverloadTime

**Description:** Time at which overload is detected.

**Type:** long

**Access:** RO

**Default Value:** -1

### 5.1.3.2 ThreadsAtOverloadInstance

**Description:** Number of threads at which system panicked last time.

**Type:** int

**Access:** RO

**Default Value:** -1

```
Fiorano.etc.jobManagers:ServiceType=JobManager, Impl=Impl2, Name=PTPWriteJobManager, type=  
=config
```

## 5.1.4 Attributes of PTPWriteJobManager Config

### 5.1.4.1 MinimumJobWorkers

**Description:** Minimum number of job workers always present in the system.

**Type:** int

**Access:** RW

**Default Value:** 4

### 5.1.4.2 MaximuJobWorkers

**Description:** Maximum number of job workers that can be present at any instance.

**Type:** int

**Access:** RW

**Default Value:** 40

### 5.1.4.3 JobsPerWorker

**Description:** Number of jobs used per worker

**Type:** int

**Access:** RO

**Default Value:** 4

```
Fiorano.etc.jobManagers:ServiceType=JobManager, Impl=Impl2, Name= PTPReadJobManager
```

## 5.1.5 Attributes of PTPReadJobManager

### 5.1.5.1 OverloadTime

**Description:** Time at which overload is detected

**Type:** long

**Access:** RO

**Default Value:** -1



### 5.1.5.2 ThreadsAtOverloadInstance

**Description:** Number of threads at which system panicked last time.

**Type:** int

**Access:** RO

**Default Value:** -1

Fiorano.etc.jobManagers:ServiceType=JobManager, Impl=Impl2, Name=PTPReadJobManager, type=config

## 5.1.6 Attributes of PTPReadJobManager Config

### 5.1.6.1 MinimumJobWorkers

**Description:** Minimum number of job workers always present in the system.

**Type:** int

**Access:** RW

**Default Value:** 4

### 5.1.6.2 MaximuJobWorkers

**Description:** Maximum number of job workers that can be present at any instance.

**Type:** int

**Access:** RW

**Default Value:** 40

### 5.1.6.3 JobsPerWorker

**Description:** Number of jobs used per worker.

**Type:** int

**Access:** RO

**Default Value:** 4

Fiorano.etc.jobManagers:ServiceType=JobManager, Impl=Impl2, Name=TopicWriteJobManager

## 5.1.7 Attributes of TopicWriteJobManager

### 5.1.7.1 OverloadTime

**Description:** Time at which overload is detected.

**Type:** long

**Access:** RO

**Default Value:** -1

### 5.1.7.2 ThreadsAtOverloadInstance

**Description:** Number of threads at which system panicked last time.

**Type:** int

**Access:** RO

**Default Value:** -1

Fiorano.etc.jobManagers:ServiceType=JobManager,Impl=Impl2,Name=TopicWriteJobManager,type=config

## 5.1.8 Attributes of TopicWriteJobManager Config

### 5.1.8.1 MinimumJobWorkers

**Description:** Minimum number of job workers always present in the system.

**Type:** int

**Access:** RW

**Default Value:** 4

### 5.1.8.2 MaximumJobWorkers

**Description:** Maximum number of job workers that can be present at any instance.

**Type:** int

**Access:** RW

**Default Value:** 40

### 5.1.8.3 JobsPerWorker

**Description:** Number of jobs used per worker.

**Type:** int

**Access:** RO

**Default Value:** 4

### 5.1.8.4 runtimeObjectManagers

`Fiorano.etc.runtimeObjectManagers:ServiceType=ObjectManager,Name=gmsObjectManager,type=config`

## 5.1.9 Attributes of gmsObjectManager Config

### 5.1.9.1 MaxHashCodeValidationAttempts

**Description:** Specifies the maximum number of the hashCode revalidation attempts in Object creation.

**Type:** int

**Access:** RO

**Default Value:** 16

### 5.1.9.2 HashcodeReuseAlgoUsed

**Description:** Specifies whether hashcode reuse algorithm is used.

**Type:** boolean

**Access:** RW

**Default Value:** yes

### 5.1.9.3 MaxObjectTypes

**Description:** Maximum number of object types that can be stored.

**Type:** int

**Access:** RO

**Default Value:** 14

Fiorano.etc.runtimeObjectManagers:ServiceType=ObjectManager,Name=ObjectManager,type=config

## 5.1.10 Attributes of ObjectManager Config

### 5.1.10.1 MaxHashCodeValidationAttempts

**Description:** Specifies the maximum number of the hashCode revalidation attempts in Object creation.

**Type:** int

**Access:** RO

**Default Value:** 16

### 5.1.10.2 HashcodeReuseAlgoUsed

**Description:** Specifies whether hashcode reuse algorithm is used.

**Type:** boolean

**Access:** RW

**Default Value:** yes

### 5.1.10.3 MaxObjectTypes

**Description:** Maximum number of object types that can be stored.

**Type:** int

**Access:** RO

**Default Value:** 14

## 5.2 AdminService

Fiorano.etc:ServiceType=AdminService,Name=AdminService

### 5.2.1 Operations of AdminService

#### 5.2.1.1 getUser

**Description:** Gets user with the specified user name.

**Return Type:** java.security.Principal

**Parameters:** name="username" type="java.lang.String" description="UserName"

#### 5.2.1.2 getGroup

**Description:** Gets group with the specified group name.

**Return Type:** java.security.acl.Group

**Parameters:** name="name" type="java.lang.String" description="UserName"

#### 5.2.1.3 getUserNames

**Description:** Gets the enumeration of usernames.

**Return Type:** java.util.Enumeration description="String representation of user names"

**Parameters:** no parameters

#### 5.2.1.4 getGroupNames

**Description:** Gets the enumeration of group names.

**Return Type:** java.util.Enumeration description="String representation of group names"

**Parameters:** no parameters

#### 5.2.1.5 getAclNames

**Description:** Returns the Enumeration of acl names.

**Return Type:** java.util.Enumeration description="String representation of acl names"

**Parameters:** no parameters

#### 5.2.1.6 getDurableSubscribersForTopic

**Description:** Gets the enumeration of registered durable subscribers for topic.

**Return Type:** java.util.Enumeration description="Client Id and name of Durable Subscriber"

**Parameters:** name="topicName" type="java.lang.String" description="topicName"

#### 5.2.1.7 getNumberOfDeliverableMessages

**Description:** Gets the Number of DeliverableMessages to the passed DurableSubscriber.

**Return Type:** long

**Parameters:**

1. name="clientID" type="java.lang.String" description="clientID"
2. name="subscriberID" type="java.lang.String" description="subscriberID"

### 5.2.1.8 [getNumberOfDeliverableMessages](#)

**Description:** Gets the Number of DeliverableMessages to the queue

**Return Type:** long

**Parameters:** name="name" type="java.lang.String" description="queue Name"

### 5.2.1.9 [getClientIDs](#)

**Description:** Gets the enumeration of Client IDs.

**Return Type:** java.util.Enumeration description="String representation of ClientIDs"

**Parameters:** name="name" type="java.lang.String" description="queue Name"

### 5.2.1.10 [getSubscriberIDs](#)

**Description:** Gets the enumeration of Subscriber IDs for Client IDs.

**Return Type:** java.util.Enumeration description="String representation of SubscriberIDs"

**Parameters:** name="clientID" type="java.lang.String" description="clientID"

### 5.2.1.11 [getPTPClientIDs](#)

**Description:** Gets the enumeration of PTP Client IDs.

**Return Type:** java.util.Enumeration description="String representation of PTP ClientIDs"

**Parameters:** no parameters

### 5.2.1.12 [getPubSubClientIDs](#)

**Description:** Gets the enumeration of PubSub Client IDs.

**Return Type:** java.util.Enumeration description="String representation of PubSub ClientIDs"

**Parameters:** no parameters

### 5.2.1.13 getSubscriptionTopicName

**Description:** the topic name on which the durable subscriber identified by the pair [clientID, subscriberID] is created.

**Return Type:** java.lang.String

**Parameters:**

1. name="clientID" type="java.lang.String" description="clientID"
2. name="subscriberID" type="java.lang.String" description="subscriberID"

### 5.2.1.14 getNumberOfUndeletedMessages

**Description:** Gets the number of undeleted messages in the queue.

**Return Type:** long

**Parameters:** name="name" type="java.lang.String" description="queue Name"

### 5.2.1.15 getNamingManagerImpl

**Description:** Gets the implementation class of Naming Services at server.

**Return Type:** java.lang.String

**Parameters:** no parameters

### 5.2.1.16 getAllTransactions

**Description:** Gets the enumeration of all transactions.

**Return Type:** java.util.Enumeration description= "an enumeration of all the transactions of the specified type. The elements of the enumeration are byte[] containing the GMSXid. Byte array is constructed as follows first 4 bytes - formatId next 4 bytes - global TransactionId length next set of bytes - global transactionId next set of bytes - branch qualifier"

**Parameters:** name="type" type="byte" description="Transcation type"

### 5.2.1.17 getAllTraceComponents

**Description:** Gets all the traceable components and their log levels.

**Return Type:** java.util.Hashtable description= "Keys are logger class names and values are their log levels."

**Parameters:** no parameters

#### 5.2.1.18 [getRegisteredSnooperDestinations](#)

**Description:** Gets an enumeration of all the registered snoopers.

**Return Type:** java.util.Enumeration description= "Gets the enumeration of snooped registered destinations."

**Parameters:** no parameters.

#### 5.2.1.19 [isDestinationRegistered](#)

**Description:** Checks if the snooper is registered for the specified destination

**Return Type:** boolean

**Parameters:** name="destinationName" type="String" description="Destination Name"

#### 5.2.1.20 [getServersInCluster](#)

**Description:** Gets an Enumeration of all the Servers in the cluster catered by this Dispatcher in a dispatcher enabled server.

**Return Type:** java.util.Enumeration description= "ServerMetaData representing the Servers in the Cluster".

**Parameters:** no parameters

#### 5.2.1.21 [getActiveServersInCluster](#)

**Description:** Gets an Enumeration of all the Active Servers in the cluster catered by this Dispatcher in a dispatcher enabled server.

**Return Type:** java.util.Enumeration description= "ServerMetaData representing the Active Servers in the Cluster".

**Parameters:** no parameters

#### 5.2.1.22 [getPreferredServer](#)

**Description:** Gets PreferredServer MetaData for cluster

**Return Type:** fiorano.jms.md.ServerMetaData

**Parameters:** no parameters

#### 5.2.1.23 [getDefaultSnooperStatusOnDestinations](#)

**Description:** get Snooping Status of destination domain based on type



**Return Type:** boolean

**Parameters:** name="destinationType" type="byte" description="Destination Type"

**Legal Values:**

- 0 = Topics
- 1 = Queues

#### 5.2.1.24 setAsPreferredServer

**Description:** Set the Preferred Server in cluster in a dispatcher enabled server

**Return Type:** No return value

**Parameters:** name="server" type="java.net.URL" description="server URL"

#### 5.2.1.25 setMaximumClientConnections

**Description:** Sets maximum client connections for the specified server in a dispatcher enabled server.

**Return Type:** no return value

**Parameters:**

1. name="server" type="java.net.URL" description="server URL"
2. name="conns" type="int" description="No of client connections to be Set"

#### 5.2.1.26 setDefaultSnooperStatusOnDestinations

**Description:** Enable Snooping on Destinations based on DestinationType

**Return Type:** No return value

**Parameters:**

1. name="destinationType" type="byte" description="Destination Type"
2. name="status" type="boolean" description="Snooping status"

**LegalValues:**

1. For destinationType
  - 0 = Topics
  - 1= Queues
2. For status
  - true = set the snooping status
  - false = don't set the snooping status

### 5.2.1.27 listAdminConnectionFactoryies

**Description:** Lists all Admin Connection Factories

**Return Type:** java.util.HashMap description = "Keys are names (java.lang.String) of connectionFactories and values are Metadata(fiorano.jms.md.AdminConnectionFactoryMetadata)"

**Parameters:** no parameters

### 5.2.1.28 listCommonConnectionFactoryies

**Description:** Lists all common Connection Factories.

**Return Type:** java.util.HashMap description = "Keys are names (java.lang.String) of connectionFactories and values are Metadata(fiorano.jms.md.UnifiedConnectionFactoryMetadata)"

**Parameters:** no parameters

### 5.2.1.29 createAdminConnectionFactory

**Description:** Creates an admin connection factory.

**Return Type:** No return value

**Parameters:**

1. name="tcfName" type="String" description="ConnectionFactory name"
2. name="primaryURL" type="String" description="primary Connect URL"
3. name="backupUrls" type="String" description="backup Connect URLs"
4. name="isForLPC" type="boolean" description="Is Local Connection Factory"
5. name="Description" type="String" description="Description of ConnectionFactory"

### 5.2.1.30 createCommonConnectionFactory

**Description:** Creates a common connection factory

**Return Type:** No return value

**Parameters:**

1. name="cfName" type="String" description="ConnectionFactory name"
2. name="primaryURL" type="String" description="primary Connect URL"
3. name="backupUrls" type="String" description="backup Connect URLs"
4. name="isForLPC" type="boolean" description="Is Local Connection Factory"
5. name="Description" type="String" description="Description of ConnectionFactory"

### 5.2.1.31 printServerInfo

**Description:** Prints the complete Server Info

**Return Type:** java.lang.String

**Parameters:** no parameters

### 5.2.1.32 destroy

**Description:** Remove the adminObject identified by a given adminObjectName from the list of administered Objects.

**Return Type:** boolean

**Parameters:** name="adminObjectName" type="java.lang.String" description="To be Destroy adminObjectName"

### 5.2.1.33 elements

**Description:** Gets an enumeration of all admin objects.

**Return Type:** java.util.Enumeration description = "Values are MetaData objects corresponding to the admin Objects. For queues values are QueueMetaData and for topics values are TopicMetaData".

**Parameters:** no parameters

### 5.2.1.34 createGroup

**Description:** Creates group with the specified name

**Return Type:** java.security.acl.Group

**Parameters:** name="name" type="java.lang.String" description="GroupName"

### 5.2.1.35 createUser

**Description:** Creates user with the specied user name and password

**Return Type:** java.security.Principal

**Parameters:**

1. name="username" type="java.lang.String" description="UserName"
2. name="passwd" type="java.lang.String" description="Password"

### 5.2.1.36 deleteUser

**Description:** Deletes the user if underlying realm implementation supports deletion.

**Return Type:** boolean

**Parameters:** name="name" type="java.lang.String" description="UserName"

### 5.2.1.37 deleteGroup

**Description:** Deletes the group if underlying realm implementation supports deletion.

**Return Type:** boolean

**Parameters:** name="name" type="java.lang.String" description="GroupName"

### 5.2.1.38 changePassword

**Description:** Changes the password of the specified user to specified password.

**Return Type:** boolean

**Parameters:**

1. name="username" type="java.lang.String" description="UserName"
2. name="newPasswd" type="java.lang.String" description="Password"
3. name="oldPasswd" type="java.lang.String" description="Password"

### 5.2.1.39 authenticateUser

**Description:** Authenticates the user

**Return Type:** Boolean

**Parameters:**

1. 1. name="username" type="java.lang.String" description="UserName"
2. 2. name="passwd" type="java.lang.String" description="Password"

### 5.2.1.40 elements

**Description:** Returns the elements based on the passed MetaData type.

**Return Type:** java.util.Enumeration description= "MetaDatatas depending on the passed type"

**Parameters:** name="type" type="byte" description="type of administered object"

**LegalValues:**

- 100 = Topic

- 101 = Queue
- 102 = TopicConnectionFactory
- 103 = QueueConnectionFactory
- 104 = AdminConnectionFactory
- 108 = CommonConnectionFactory
- 109 = XaQueueConnectionFactory
- 110 = XaTopicConnectionFactory
- 111 = XaCommonConnectionFactory

#### 5.2.1.41 unsubscribe

**Description:** Unsubscribes the durable subscription identified by the clientID and subscriberID

**Return Type:** No return value

**Parameters:**

1. name="clientID" type="java.lang.String" description="Client ID"
2. name="subscriberID" type="java.lang.String" description="Subscriber ID"

#### 5.2.1.42 purgeSubscriptionMessages

**Description:** Deletes the messages stored for the durable subscription identified by the clientID and subscriberID

**Return Type:** No return value

**Parameters:**

1. name="clientID" type="java.lang.String" description="Client ID"
2. name="subscriberID" type="java.lang.String" description="Subscriber ID"

#### 5.2.1.43 deleteTopic

**Description:** Deletes a topic from the server

**Return Type:** No return value

**Parameters:** name="name" type="java.lang.String" description="Name of the topic"

#### 5.2.1.44 deleteQueue

**Description:** Deletes a queue from the server

**Return Type:** No return value

**Parameters:** name="name" type="java.lang.String" description="Name of the queue"

#### 5.2.1.45 currentUsers

**Description:** Gets the list of all logged in users.

**Return Type:** java.util.Enumeration description="Contains the entire logged in user names"

**Parameters:** No parameters

#### 5.2.1.46 purgeQueueMessages

**Description:** Deletes all the messages of the queue if there are no active consumers of the queue

**Return Type:** No return value

**Parameters:** name="queueName" type="java.lang.String" description="queueName"

#### 5.2.1.47 deleteMessagesOnServer

**Description:** Deletes the messages specified by the passed parameters.

**Return Type:** int description="Number of messages deleted from the server."

**Parameters:**

1. name="queueName" type="java.lang.String" description="QueueName"
2. name="startIndex" type="long" description="startIndex of Message"
3. name="endIndex" type="long" description="endIndex of Message"
4. name="priority" type="int" description="priority of Messages"

#### 5.2.1.48 trace

**Description:** Set tracing for all components at specified level.

**Return Type:** No return value

**Parameters:** name="level" type="int" description="level to be Set"

#### 5.2.1.49 registerMessageSnooperForAll

**Description:** Registers the message snooper for all destinations.

**Return Type:** No return value

**Parameters:** No parameters

#### 5.2.1.50 unregisterMessageSnooperForAll

**Description:** Unregisters message snooper for all destinations.

**Return Type:** No return value

**Parameters:** No parameters

#### 5.2.1.51 registerMessageSnooperForDestination

**Description:** Registers message snooper for a particular destination

**Return Type:**No return value

**Parameters:** name="destinationName" type="String" description="Destination Name"

#### 5.2.1.52 registerMessageSnooperForDestination

**Description:** Unregisters message snooper for a particular destination

**Return Type:**No return value

**Parameters:** name="destinationName" type="String" description="Destination Name"

#### 5.2.1.53 startSystemEvents

**Description:** Starts the system events

**Return Type:** No return value

**Parameters:** No parameters

#### 5.2.1.54 stopSystemEvents

**Description:** Gets the list of all logged in users.

**Return Type:** No return value

**Parameters:** No parameters

#### 5.2.1.55 addMonitor

**Description:** Adds an event for monitoring

**Return Type:** java.util.Enumeration description="Contains the entire logged in user names"

**Parameters:**

1. name="type" type="int" description="Monitor Type"

2. name="timeout" type="long" description="specified timeout"

**Legal Values:**

- For type
  - i. 1024 = MemoryEvents
  - ii. 2048 = ThreadEvents
  - iii. 4096 = PubsubEvents
  - iv. 8192 = PtpEvents

### 5.2.1.56 removeMonitor

**Description:** Adds an event for monitoring

**Return Type:** java.util.Enumeration description="Contains the entire logged in user names"

**Parameters:**

- name="type" type="int" description="Monitor Type"

**Legal Values:**

- For type
  - i. 1024 = MemoryEvents
  - ii. 2048 = ThreadEvents
  - iii. 4096 = PubsubEvents
  - iv. 8192 = PtpEvents

### 5.2.1.57 saveDispatcherConfigurations

**Description:** Saves the configurations of dispatcher to a file.

**Return Type:**No return value

**Parameters:** No parameters

### 5.2.1.58 getPermission

**Description:** Return the permission Object based on permission type.

**Return Type:** java.security.acl.Permission

**Parameters:** name="type" type="int" description="type of permission"



#### 5.2.1.59 listConnectionAndDestinationMapping

**Description:** Return the hash table of connection and destination mapping.

**Return Type:** java.util.Hashtable

**Parameters:** No parameters

#### 5.2.1.60 listConnectionAndProducerMapping

**Description:** Return the hash table of connection and producer mapping.

**Return Type:** java.util.Hashtable

**Parameters:** No parameters

#### 5.2.1.61 listConnectionAndConsumerMapping

**Description:** Return the hash table of connection and consumer mapping.

**Return Type:** java.util.Hashtable

**Parameters:** No parameters

#### 5.2.1.62 getNoOfActiveClientConnections

**Description:** Return the hash table of connection and consumer mapping.

**Return Type:** java.util.Hashtable

**Parameters:** No parameters

#### 5.2.1.63 listAdminConnectionFactoryies

**Description:** Return the hash table of connection and consumer mapping.

**Return Type:** java.util.Hashtable

**Parameters:** No parameters

#### 5.2.1.64 listAllConnectionFactoryies

**Description:** Return the hash table of connection and consumer mapping.

**Return Type:** java.util.Hashtable

**Parameters:** No parameters

### 5.2.1.65 listActiveClientConnections

**Description:** returns the Enumeration of Active Client Connections. Enumeration will contain one string per Topic/Queue/Admin connection of the format: user\_name/IP: connected\_since,  
**Type:** PTP/PubSub/Admin Connection.

**Return Type:** java.util.Enumeration

**Parameters:** No parameters

### 5.2.1.66 isUserActive

**Description:** Gets the Connection State of the Users.

**Return Type:** boolean

**Parameters:** java.lang.String

### 5.2.1.67 trace

**Description:** Sets tracing for specified component at specified level.

**Return Type:** void

**Parameters:**

1. name="componentName" type="java.lang.String" description="Component Name"
2. name="level" type="int" description="level to be Set"

### 5.2.1.68 isAdmin

**Description:** Specifies whether this user is a member of administrators group.

**Return Type:** boolean

**Parameters:**

1. name="name" type="String" description = "specify the user name"

### 5.2.1.69 getServerInfo

**Description:** Returns the server version and build number.

**Return Type:** java.lang.String

**Parameters:** No parameters

### 5.2.1.70 recheckJournalingStatusOnDestinations

**Description:** Creates the journaling destinations corresponding to each destination based on the journaling status.

**Return Type:** java.lang.Boolean

True - If the operation is successful and the journaling destinations are created, otherwise false.

**Parameters:** No parameters

## 5.3 DefaultLogManager

Fiorano.etc:ServiceType=ClientLogManager,Name=DefaultLogManager,type=config

### 5.3.1 Attributes of DefaultLogManager

#### 5.3.1.1 LogDir

**Description:** Base Directory where logs will be stored.

**Type:** java.lang.String

**Access:** RW

**Default Value:** ..\profiles\FioranoMQ\run\logs.

#### 5.3.1.2 Encoding

**Description:** Encoding scheme used by the Loggers to log messages.

**Type:** java.lang.String

**Access:** RW

**Default Value:** UTF-8

#### 5.3.1.3 Level

**Description:** Log level that is used by newly constructed Handler objects.

**Type:** int

**Access:** RW

**Default Value:** 2

#### 5.3.1.4 FileSizeLimit

**Description:** Maximum size of each log file used by FileHandler. 0 means infinite.

**Type:** int

**Access:** RW

**Default Value:** 0

#### 5.3.1.5 FileCount

**Description:** Maximum number of files that can be used by FileHandler.

**Type:** int

**Access:** RW

**Default Value:** 1

#### 5.3.1.6 AppendToFile

**Description:** Specifies the append mode to filehandler.

**Type:** boolean

**Access:** RW

**Default Value:** yes

#### 5.3.1.7 Formatter

**Description:** Specifies the formatter for logs

**Type:** java.lang.String

**Access:** RW

**Default Value:** fiorano.jms.log2.def.DefaultFormatter

### 5.4 Memory Manager

Fiorano.etc:ServiceType=MemoryManager,Name=MemoryManager

#### 5.4.1 Attributes of Memory Manager

##### FreeMemory

**Description:** Free memory (bytes) available to JVM.

**Type:** long

**Access:** RO

**Default Value:** No default value

### UsedMemory

**Description:** Used memory (bytes) available to JVM

**Type:** long

**Access:** RO

**Default Value:** No default value

### MaxMemory

**Description:** Maximum memory (bytes) available to JVM

**Type:** int

**Access:** RO

**Default Value:** depends on connections.

## 5.4.2 Operations of Memory Manager

### gc

**Description:** Does garbage collection of unused objects in JVM.

**Return Type:** No return type

**Parameters:** No parameters

### getTotalMemory

**Description:** Returns the total amount of memory in the Java virtual machine.

**Return Type:** long

**Parameters:** No parameters

## 5.5 RdbmsDBManager

Fiorano.etc:ServiceType=RdbmsDBManager,Name=RdbmsDBManager,type=config

### 5.5.1 Attributes of RdbmsDBManager Config

#### Url

**Description:** Url of the database where messages are stored

**Type:** java.lang.String

**Access:** RW

**Default Value:** jdbc:hsqldb:..\profiles\FioranoMQ\run\RDBMS\FMQ

#### Password

**Description:** Password for RDBMS user. Used for connecting to the server.

**Type:** java.lang.String

**Access:** RW

**Default Value:** No default value

#### Username

**Description:** User name used for connecting to the RDBMS server.

**Type:** java.lang.String

**Access:** RW

**Default Value:** sa

#### JdbcDriver

**Description:** JDBC Driver used to connect to the RDBMS data storage

**Type:** java.lang.String

**Access:** RW

**Default Value:** org.hsqldb.jdbcDriver

#### MaxConnections

**Description:** Allowed maximum number of connections that would be created.

**Type:** int

**Access:** RW

**Default Value:** 200

### DefaultConnections

**Description:** Number of connections created while server startup.

**Type:** int

**Access:** RW

**Default Value:** 1

### ConnectionTimeoutInterval

**Description:** Connection timeout interval in milliseconds.

**Type:** int

**Access:** RW

**Default Value:** 10000

### ReconnectTimeInterval

**Description:** Reconnection time interval in milliseconds.

**Type:** int

**Access:** RW

**Default Value:** 10000

### WaitTime

**Description:** Wait time if the no additional connections are available. 0 means infinite

**Type:** int

**Access:** RW

**Default Value:** 0

### EnableRdbms

**Description:** Enables or disable db manager for using the rdbms server. This must be set for using the rdbms server

**Type:** boolean

**Access:** RW

**Default Value:** no

### EnableReconnect

**Description:** Boolean used to specify whether reconnection should be done or not.

**Type:** boolean

**Access:** RW

**Default Value:** yes

### PropertiesFilename

**Description:** JDBC Properties file name. This file contains database specific details for various SQL Types. Point this to the name of the file jdbc\_\*.cfg which should be available in %FIORANO\_HOME%/fmq/profiles/%PROFILE%/conf directory

**Type:** java.lang.String

**Access:** RW

**Default Value:** jdbc\_hsql.cfg

### DbConnectivityQuery

**Description:** Query that must be executed to check health of the connection.

**Type:** java.lang.String

**Access:** RW

**Default Value:** select \* from tab

### MaxNoRowsFetch

**Description:** Maximum number of rows fetched in a shot from the database as a result of any select query.

**Type:** int

**Access:** RW



**Default Value:** 100

## 5.6 ThreadManager

Fiorano.etc:ServiceType=ThreadManager,Name=ThreadManager,type=config

### 5.6.1 Attributes of ThreadManager

#### (a) DelayBetweenAttempts

**Description:** Delay between two successive attempts by thread manager to create a thread if thread creation fails in a critical operation in milliseconds.

**Type:** int

**Access:** RW

**Default Value:** 100

#### (b) MaxIdleThreads

**Description:** Maximum number of idle threads in thread pool.

**Type:** int

**Access:** RW

**Default Value:** 4

#### (c) MaximumAttempts

**Description:** Maximum number of attempts to create a thread.

**Type:** int

**Access:** RW

**Default Value:** 8

## 5.7 MQDefObjCreator

Fiorano.etc:ServiceType=MQDefObjCreator,Name=MQDefObjCreator,type=config

### 5.7.1 Attributes of MQDefObjCreator

#### (a) AutoUpdationAllowedForCFs

**Description:** Sets the AutoUpdate property for MQ default CFs based on this flag.

**Type:** boolean

**Access:** RW

**Default Value:** false

### (b) BackupServerIp

**Description:** Backup server url used by default connection factories.

**Type:** java.lang.String

**Access:** RW

**Default Value:** No default value

### (c) BackupServerPort

**Description:** Backup server port used by default connection factories.

**Type:** int

**Access:** RW

**Default Value:** -1

## 5.8 PingManager

`Fiorano.etc:ServiceType=PingManager,Name=PingManager,type=config`

### 5.8.1 Attributes of PingManager

#### (a) PingerTimeout

**Description:** Ping time out interval in milliseconds.

**Type:** long

**Access:** RW

**Default Value:** 60000

## 5.9 TimerService

`Fiorano.etc:ServiceType=TimerService,Name=TimerService,type=config`

## 5.9.1 Attributes of TimerService

### (a) Name

**Description:** Name of the Fiorano timer service.

**Type:** java.lang.String

**Access:** RW

**Default Value:** FioranoTimerService

### (b) Clocktick

**Description:** Interval in milliseconds after which timer service will invoke registered timers.

**Type:** long

**Access:** RW

**Default Value:** 500

## 5.10 RouteManager

`Fiorano.etc:ServiceType=RouteManager,Name=RouteManager,type=config`

### 5.10.1 Attributes of RouteManager

#### (a) UpperLimitOnConnectionSharing

**Description:** Specifies the maximum number of routes that will share a single JMS connection.

**Type:** int

**Access:** RO

**Default Value:** 10

#### (b) MaxCreateSessionTries

**Description:** Specifies the maximum number of attempts to create a JMS Object.

**Type:** int

**Access:** RO

**Default Value:** 1

### (c) MaxTopicBuffer

**Description:** Route level upper limit for message buffer size in bytes.

**Type:** int

**Access:** RW

**Default Value:** 131072

### (d) UseConnectionSharing

**Description:** Specifies whether connection sharing by routes is switched on or not.

**Type:** boolean

**Access:** RO

**Default Value:** yes

## 5.10.2 Operations of RouteManager

### (a) removeRoute

**Description:** Removes the given Route.

**Return Type:** No return type

**Parameters:**

name="routeGUID" type="String"

### (b) listAllRoutes

**Description:** lists all routes created for this route Manager.

**Return Type:** java.util.Vector

**Parameters:** No parameters

### (c) addRoute

**Description:** Adds a route with given parameters.

**Return Type:** long

**Parameters:**

- name="routeGUID" type="String" description="ID to uniquely distinguish this route"

- name="lookupUrl" type="String" description="Provider url to lookup the target CF"
- name="srcDest" type="String" description="Source destination of this route (should be local)"
- name="tgtCF" type="String" description="Target Connection Factory for this route"
- name="tgtDest" type="String" description="Target destination for this route (can be remote)"
- name="isDurSub" type="boolean" description="Boolean to indicate whether durable subscribers should be used or not"
- name="durSubID" type="String" description="Durable Subscriber ID that is used in case isDurSub is true"
- name="clientID" type="String" description="Client ID that is used"
- name="jmsSelector" type="String" description="JMS Selector used for this route"
- name="isJMSReplyToAsTarget" type="boolean" description="Boolean indicating whether target destination should be set dynamically based on the incoming message's JMSReplyTo header property."
- name="enableDMQOnRoute" type="boolean" description="Boolean indicating whether DMQ is enabled on route or not"
- name="msgPropertyForTargetCF" type="String" description="JMS message property used to set TargetCF, in case isJMSReplyToAsTarget is true and no Target CF is specified"
- name="srcServerUserName" type="String" description="User name of source server for creating route."
- name="srcServerPassword" type="String" description="Password of source server for creating route."
- name="tarServerUserName" type="String" description="User name of target server for creating route."
- name="tarServerPassword" type="String" description="Password of target server for creating route."
- name="dmqExpiryTime" type="long" description="Expiration Time for messages in Dead Message queue"

#### (d) saveRoutes

**Description:** This operation saves all the routes present in the server. Once these routes are saved, they will be recreated by the active server upon each restart of the server.

**Return Type:** No return type

**Parameters:** No parameters

## 5.11 FMQConfigLoader

Fiorano.etc:ServiceType=FMQConfigLoader, Name=FMQConfigLoader, type=config

### 5.11.1 Attributes of FMQConfigLoader

#### (a) LazyRSCreation

**Description:** Boolean determining if RTL Receive threads Creation is to be optimized or not. In optimized mode, a thread is created only when the first consumer is created on a session created by a connection.

**Type:** boolean

**Access:** RW

**Default Value:** no

#### (b) AllowDurableConnections

**Description:** Specifies whether durable connections are allowed or not

**Type:** boolean

**Access:** RW

**Default Value:** no

#### (c) UseSingleSocket

**Description:** Each JMS Connection internally results in creation of two sockets with the server. By turning on this Flag Fiorano's Runtime is instructed to use a single socket instead.

**Type:** boolean

**Access:** RW

**Default Value:** no

#### (d) UseSingleSocketForAdmin

**Description:** Turning on this flag, will result in starting off a thread for admin connection that would constantly be waiting for data on socket. This will detect loss of connection immediately.

**Type:** boolean

**Access:** RW

**Default Value:** yes.

#### (e) UseFioranoCbr

**Description:** FioranoMQ provides support for Content Based Routing (CBR). Enabling CBR support (by specifying this variable as true) allows client applications to define XPath Selectors when creating consumers.

**Type:** boolean

**Access:** RW

**Default Value:** no

#### (f) CreateDefaultACL

**Description:** Flag indication whether to create default ACL for MQ objects.

**Type:** boolean

**Access:** RW

**Default Value:** yes

#### (g) AclBasedDestinationSecurity

**Description:** Flag indicating whether ACL based security is enabled or not. If Enabled, user operations will first be checked against the associated ACL

**Type:** boolean

**Access:** RW

**Default Value:** no

#### (h) AllPermissions

**Description:** Flag indicating whether all default permissions for a new ACL should be negative or positive

**Type:** boolean

**Access:** RW

**Default Value:** yes

#### (i) AllowOnFlyAclCheck

**Description:** Flag to indicate whether modifications in an ACL would be reflected in currently connected clients or not.

**Type:** boolean

**Access:** RW

**Default Value:** no

#### (j) AllowOnTheFlyCreationOfDestinations

**Description:** Flag to control the behavior of createTopic and createQueue APIs' in JMS Session. If set to true, a new destination would be automatically created when invoked with a destination name that doesn't exist, if set to false an exception would be thrown.

**Type:** boolean

**Access:** RW

**Default Value:** yes

#### (k) EnsureUniquenessOfClientId

**Description:** Flag to indicate whether uniqueness of clientId is required or not. If set to true, a connection that sets a client Id that is already set on another connection will get an exception on doing so.

**Type:** boolean

**Access:** RW

**Default Value:** no

#### (l) MaxTransactionBufferSize

**Description:** Maximum amount of data (in bytes) that a transacted Session would store in un-committed state. Attempt to publish more data in un-committed transaction will result in an exception.

**Type:** int

**Access:** RW

**Default Value:** 10240000

#### (m) EnableAutoRevalidation

**Description:** Boolean controlling if auto-revalidation is enabled by default. If enabled, Fiorano's runtime upon detecting loss of connectivity will automatically try to re-connect back to the server

**Type:** boolean

**Access:** RW

**Default Value:** no



### (n) HttpPollingInterval

**Description:** Polling interval used for http connections

**Type:** int

**Access:** RW

**Default Value:** 10000

### (o) IncludeMessageID

**Description:** Sets whether to enable or disable message id at server.

**Type:** boolean

**Access:** RW

**Default Value:** no

### (p) IsLMSEnabled

**Description:** Boolean controlling if Large Message Size Functionality is enabled in FioranoMQ.

**Type:** boolean

**Access:** RW

**Default Value:** no

### (q) Resumetimeoutinterval

**Description:** Integer specifying the resume timeout to be used by the application. If resume does not happens in this timeout it comes out from resuming and starts normal transfer.

**Type:** long

**Access:** RW

**Default Value:** -1

### (r) MessageSelectorFactoryClassName

**Description:** Class Name that provides CBR Engine functionality for FioranoMQ Server. This property would be used only if Content Based Routing (CBR) is enabled in FioranoMQ Server.

**Type:** java.lang.String

**Access:** RW

**Default Value:** fiorano.jms.cbr.cbr1.def.MessageSelectorFactory

#### (s) PingEnabled

**Description:** Boolean controlling if client connections are automatically pinged. Pinging is essential for detecting Network problems.

**Type:** boolean

**Access:** RW

**Default Value:** no

#### (t) SystemEncodingFormat

**Description:** Encoding format for UTF-8

**Type:** java.lang.String

**Access:** RW

**Default Value:** UTF-8

## 5.12 ResourceManager

Fiorano.etc:ServiceType=ResourceManager, Name=ResourceManager, type=config

### 5.12.1 Attributes of ResourceManager

#### (a) MaxMemoryThresholdAllowed

**Description:** Maximum memory threshold allowed, value can range from 0.0 to 1.0

**Type:** java.lang.String

**Access:** RW

**Default Value:** 0.8

#### (b) TimeInterval

**Description:** Interval after which monitoring thread will run again.

**Type:** long

**Access:** RW

**Default Value:** 10000

### (c) EnableMonitoringThread

**Description:** Whether to enable monitoring thread or not

**Type:** boolean

**Access:** RW

**Default Value:** false

### (d) EnableVerboseLogging

**Description:** Whether to enable verbose logging or not, if set to false logs will be maintained in monitor.txt file in the format:

```
[Date] [space] [Time] [comma] [QueueConnections] [comma] [TopicConnections] [comma] [sessions]
[comma] [senders] [comma] [receivers] [comma] [publisher] [comma] [subscriber] [comma] [threads]
[comma] [usedMemory]
```

**Type:** boolean

**Access:** RW

**Default Value:** true

### (e) EnableThreadDumpInfo

**Description:** Whether to enable Thread Dump info in case server goes low on memory.

**Type:** boolean

**Access:** RW

**Default Value:** false

## 5.12.2 Operations of ResourceManager

Fiorano.etc:ServiceType=ResourceManager, Name=ResourceManager

### getUsedMemory

**Description:** Returns the amount of memory used in KiloBytes.

**Return Type:** long

**Parameters:** No parameters

### isServerLowOnMemory

**Description:** Check whether the used memory of the server has exceeded, the allowed threshold of the total memory available.

**Return Type:** boolean

**Parameters:** No parameters

### isServerMemoryLow

**Description:** Check whether the used memory of the server has exceeded, the allowed threshold of the total memory available.

**Return Type:** boolean

**Parameters:** No parameters

### gc

**Description:** Does garbage collection of unused objects in JVM.

**Return Type:** No return type

**Parameters:** No parameters

## 5.13 Directory Service

Contains MBeans related to Fiorano MQ Directory Service.

`Fiorano.etc:ServiceType=DirectoryService,Name=DirectoryService`

### 5.13.1 Attributes of Directory Service

#### (a) StateString:

Description: State of the Directory Service.

Type: String

Access: R

Default Value:

### 5.13.2 Operations of Directory Service

#### (a) boolean deregisterServer(String serverIP, String serverPort, String profileName)

**Description:** This operation will deregister the Fiorano Server in the Cluster Manager.

**Return type:** boolean

**Parameters:**

name="serverIP" type="java.lang.String" description="IP on which the Server is present."

- name="serverPort" type="java.lang.String" description="Port on which Server is running (can be a unique port that distinguishes different Servers.)"
- name="profileName" type="java.lang.String" description="Name of the profile"

### 5.13.3 Attributes of Directory Service Config

Fiorano.etc:ServiceType=DirectoryService,Name=DirectoryService,type=config

**(a) EnableCluster:**

Description: Returns whether cluster manager should be started or not with FioranoMQ Server.

Type: boolean

Access: RW

Default Value: true

**(b) EnableProfileMonitoring:**

Description: This parameter will define whether to monitor the configurational changes made to the profiles residing inside the Management Server. If enabled, all the configurational changes will be logged automatically to the file \$DBPATH/logs/profile-monitor.log

Type: boolean

Access: RW

Default Value: false

**(c) DirectoryServiceAddress:**

Description: Returns the IPAddress on which cluster manager will be running.

Type: String

Access: RW

Default Value: localhost

**(d) DirectoryServicePort:**

Description: Returns the port on which cluster manager must be running.

Type: integer

Access: RW

Default Value: 10389

**(e) SecurityPrincipal:**

Description: Returns the securityPrincipal required for creating a connection to cluster manager.

Type: String

Access: RW

Default Value: uid=admin,ou=system

**(f) SecurityCredentials:**

Description: the securityCredentials required for creating a connection to cluster manager.

Type: String

Access: RW

Default Value: secret

**(g) AuthenticationMode:**

Description: the authentication mode in which connection will be created to cluster manager.

Type: boolean

Access: RW

Default Value: simple

**(h) Instancepath:**

Description: the path of the Instance on which cluster manager will be running. If set to null, the default value set for the working directory is \$FIORANO\_HOME/DSInstance/\$PROFILE\_NAME.

Type: String

Access: RW

Default Value: null

**(i) SynchPeriodMillis:**

Description: the synchronization time of the DS in milli seconds.

Type: long

Access: RW

Default Value: 15000

## 5.14 Jetty Server

Fiorano.etc:ServiceType=JettyServer,Name=JettyServer,type=config

### 5.14.1 Attributes of JettyServer

#### Max Threads

**Description:** The maximum number of Threads that can be created for embedded jetty server.

**Type:** int

**Access:** RW

**Default Value:** 250

#### EnableStart

**Description:** Its value determine whether jetty server should be started or not with FioranoMQ Server.

**Type:** boolean

**Access:** RW

**Default Value:** true

#### MinThreads

**Description:** The minimum number of Threads created for embedded jetty server running.

**Type:** int

**Access:** RW

**Default Value:** 10

#### LowThreads

**Description:** Returns Low Threads for the embedded jetty server.

**Type:** int

**Access:** RW

**Default Value:** 25

### MaxIdleTime

**Description:** Determines the maximum idle time for the embedded jetty server.

**Type:** int

**Access:** RW

**Default Value:** 30000

### StatsOn

**Description:** Determines whether stats should be on or off

**Type:** boolean

**Access:** RW

**Default Value:** false

### LowResourceMaxIdleTime

**Description:** Determines the maximum idle time for embedded Jetty Server, in case of low resources.

**Type:** int

**Access:** RW

**Default Value:** 5000

### PortNumber

**Description:** The port used by the embedded jetty server.

**Type:** int

**Access:** RW

**Default Value:** 1780

### LogLevel

**Description:** The log level for jetty server log. There are 5 Log levels available. They are 0,3,4,5,10. They represent Quiet, Warn, Info, Debug and All levels respectively.

**Type:** int

**Access:** RW



**Default Value:** 4 or Info level.

### MaximumLogSize

**Description:** The maximum file size set for jetty server log. There is rolling log implementation for jetty server logs. So, once this limit is reached, current log will be copied to backup and it will start logging from beginning again.

**Type:** int

**Access:** RW

**Default Value:** 10485760

### MaxBackupFiles

**Description:** The maximum number of backup files for jetty server log.

**Type:** int

**Access:** RW

**Default Value:** 4

### JettyLogName

**Description:** The log file name for jetty server log.

**Type:** String

**Access:** RW

**Default Value:** jettyserver.log

# Chapter 6: Security

---

Contains MBeans related to security namely Principal Manager, ACL Manager and Realm manager MBeans.

## 6.1 PrincipalManager

### 6.1.1 Attributes of FileDBManager

`Fiorano.security.PrincipalManager.FileDBManager:ServiceType=FileDBManager,Name=FileDBManager2,type=config`

#### (a) Path

**Description:** Path for Initialization of FileBased dataStorage

**Type:** java.lang.String

**Access:** RW

**Default Value:** SDB/REALM.PRINCIPAL

#### (b) DeletedThresholdPercent

**Description:** Threshold percentage of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 50

#### (c) DeletedThresholdCount

**Description:** Threshold count of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 10

#### (d) DbTableNamePrefix

**Description:** Prefix of file based DB table names

**Type:** java.lang.String

**Access:** RW

**Default Value:** #

## 6.1.2 Attributes of NativeFilePrincipalManager

`Fiorano.security.PrincipalManager:ServiceType=PrincipalManager,Impl=FILE,Name=NativeFilePrincipalManager,type=config`

### (a) MaxPasswdLength

**Description:** Maximum allowable password length.

**Type:** int

**Access:** RW

**Default Value:** 50

### (b) MaxMemberCount

**Description:** Maximum number of members a principal/Group can have starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 50

## 6.2 AclManager

### 6.2.1 Attributes of FileDBManager

`Fiorano.security.AclManager.FileDBManager:ServiceType=FileDBManager,Name=FileDBManager3,type=config`

#### (a) Path

**Description:** Path for Initialization of FileBased dataStorage

**Type:** java.lang.String

**Access:** RW

**Default Value:** SDB/REALM.ACL

### (b) DeletedThresholdPercent

**Description:** Threshold percentage of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 50

### (c) DeletedThresholdCount

**Description:** Threshold count of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 10

### (d) DbTableNamePrefix

**Description:** Prefix of file based DB table names

**Type:** java.lang.String

**Access:** RW

**Default Value:** #

## 6.2.2 Attributes of NativeFileBasedAclManager

`Fiorano.security.AclManager:ServiceType=AclManager, Impl=FILE, Name=NativeFileBasedAclManager, type=config`

### (a) MaxAcePerAcl

**Description:** Maximum number of Access control entries per ACL.

**Type:** int

**Access:** RO

**Default Value:** 100

## 6.3 RealmManager

### 6.3.1 Operations of SecuritySubSystem

Fiorano.security:ServiceType=RealmManager,Name=SecuritySubSystem

#### (a) boolean setACL(String context, String aclName, String permName)

**Description:** Set the ACL to the required Context (principal)

**Return Type:** boolean (indicating whether the operation was successful)

**Parameters:**

- name="context" type="String" description="principal name for which permissions are changed"
- name="aclName" type="String" description="aclName for which permissions are changed"
- name="permName" type="String" description="permission name"

**Valid Values for "permName" are:**

"DEFAULT", "LOOKUP", "CREATE\_ADMIN\_CONNECTION", "CREATE\_CONNECTION", "CREATE\_PUBLISHER", "CREATE\_SUBSCRIBER", "CREATE\_DURABLE\_SUBSCRIBER", "UNSUBSCRIBE", "CREATE\_QUEUE\_RECEIVER", "CREATE\_QUEUE\_BROWSER", "CREATE\_QUEUE\_SENDER", "ROUTER\_OUT", "ROUTER\_IN", "MQ\_ADMIN\_SERVICES", "TRACING\_ADMIN\_SERVICES", "NAMING\_ADMIN\_SERVICES", "REALM\_ADMIN\_SERVICES", "AUDIT\_STORAGE\_POLICY\_CHANGE" and "DELETE\_AUDIT\_EVENTS"

#### (b) Principal findDefaultAclOwner()

**Description:** Gets the default ACL owner

**Return Type:** java.security.Principal

#### (c) Principal findUser(String name)

**Description:** Gets User with the specified Name

**Return Type:** java.security.Principal

**Parameters:**

- name="name" type="String"

#### (d) boolean authenticateUser(String username, String passwd)

**Description:** authenticates given user

**Return Type:** boolean

**Parameters:**

- name="UserName" type="String"
- name="Password" type="String"

**(e) Principal createUser(String userName, String password)**

**Description:** Creates User

**Return Type:** java.security.Principal

**Parameters:**

- name="UserName" type="String"
- name="Password" type="String"

**(f) Principal createUser(String userName, String password, boolean encrypt)**

**Description:** Creates User

**Return Type:** java.security.Principal

**Parameters:**

- name="UserName" type="String"
- name="Password" type="String"
- name="encrypt" type="boolean" description="Use Password encryption"

**(g) Group createGroup(String grpName)**

**Description:** Creates Group

**Return Type:** java.security.acl.Group

**Parameters:**

- name="grpName" type="String" description="Group Name"

**(h) boolean deleteUser(String userName)**

**Description:** Deletes User.

**Return Type:** boolean (indicating whether the operation was successful)

**Parameters:**

- name="UserName" type="String" description="User Name"

#### (i) boolean deleteGroup(String grpName)

**Description:** Deletes Group

**Return Type:** boolean (indicating whether the operation was successful)

**Parameters:**

- name="grpName" type="String" description="Group Name"

#### (j) boolean addMember(String grpName, String userName)

**Description:** Adds user to given group

**Return Type:** boolean

**Parameters:**

- name="grpName" type="String" description="Group Name"
- name="userName" type="String" description="User Name"

#### (k) Hashtable listMembers(String grpName)

**Description:** List members present in given group

**Return Type:** java.util.Hashtable (Contains String representation of all groups and users who are the members of this group)

**Parameters:**

- name="grpName" type="String" description="Group Name"

#### (l) Hashtable listAllGroups()

**Description:** List all groups

**Return Type:** java.util.Hashtable (Contains String representation of all groups)

#### (m) Hashtable listAllUsers()

**Description:** List all Users

**Return Type:** java.util.Hashtable (Contains String representation of all users)

#### (n) Enumeration getUserNames()

**Description:** Get the Enumeration of UserNames

**Return Type:** Enumeration

**Parameters:** None

**(o) Enumeration getGroupNames ()**

**Description:** Get the Enumeration of GroupNames

**Return Type:** Enumeration

**Parameters:** None

**(p) boolean changePasswd(String usrName, String oldPasswd, String newPasswd)**

**Description:** Change the password of a user

**Return Type:** boolean

**Parameters:**

- name="UserName" type="String"
- name="oldPassword" type="String"
- name="newPassword" type="String"
- name="Encrypt" type="boolean" description="Whether to encrypt password"



# Chapter 7: MQ

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Contains MBeans related messaging Sub System which includes PubSub Sub System, Topics, Ptp Sub System, Queues & Connection Consumers.

## 7.1 Connection-Consumer

### 7.1.1 Attributes of FileDBManager

```
Fiorano.mq.connection-consumer.FileDBManager:ServiceType=FileDBManager,  
Name=FileDBManager5,type=config
```

#### (a) Path

**Description:** Path for Initialization of FileBased dataStorage

**Type:** java.lang.String

**Access:** RW

**Default Value:** CONN\_CONSUMER

#### (b) DeletedThresholdPercent

**Description:**Threshold percentage of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 50

#### (c) DeletedThresholdCount

**Description:** Threshold count of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 10

#### (d) DbTableNamePrefix

**Description:** Prefix of file based DB table names

**Type:** java.lang.String

**Access:** RW

**Default Value:** #

## 7.2 Pubsub

### 7.2.1 Attributes of PubSub-Databases (FileDBManager4)

Fiorano.mq.pubsub.databases.file.FileDBManager:ServiceType=FileDBManager,Name=FileDBManager4,type=config

#### (a) Path

**Description:** Path for Initialization of FileBased dataStorage

**Type:** java.lang.String

**Access:** RW

**Default Value:** PUBSUB

#### (b) DeletedThresholdPercent

**Description:** Threshold percentage of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 50

#### (c) DeletedThresholdCount

**Description:** Threshold count of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 10

#### (d) DbTableNamePrefix

**Description:** Prefix of file based DB table names

**Type:** java.lang.String

**Access:** RW

**Default Value:** #

## 7.2.2 Attributes of PubSub-Databases (FileDBManager7)

Fiorano.mq.pubsub.databases.file.FileDBManager:ServiceType=FileDBManager,Name=FileDBManager7,type=config

### (a) Path

**Description:** Path for Initialization of FileBased dataStorage

**Type:** java.lang.String

**Access:** RW

**Default Value:** PSQ

### (b) DeletedThresholdPercent

**Description:** Threshold percentage of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 50

### (c) DeletedThresholdCount

**Description:** Threshold count of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 10

### (d) DbTableNamePrefix

**Description:** Prefix of file based DB table names

**Type:** java.lang.String

**Access:** RW

**Default Value:** #

### 7.2.3 Attributes of PubSub-Databases (FileDBManager8)

Fiorano.mq.pubsub.databases.file.FileDBManager: ServiceType=FileDBManager,Name=FileDBManager8,type=config

#### Path

**Description:** Path for Initialization of FileBased dataStorage

**Type:** java.lang.String

**Access:** RW

**Default Value:** LVC/Topics

#### DeletedThresholdPercent

**Description:** Threshold percentage of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 50

#### DeletedThresholdCount

**Description:** Threshold count of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 10

#### DbTableNamePrefix

**Description:** Prefix of file based DB table names

**Type:** java.lang.String

**Access:** RW

**Default Value:** #

## 7.2.4 Attributes of PubSub-Databases (FileDBManager9)

Fiorano.mq.pubsub.databases.file.FileDBManager: ServiceType=FileDBManager,Name=FileDBManager9,type=config

### Path

**Description:** Path for Initialization of FileBased dataStorage

**Type:** java.lang.String

**Access:** RW

**Default Value:** LVC/Subscribers

### DeletedThresholdPercent

**Description:** Threshold percentage of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 50

### DeletedThresholdCount

**Description:** Threshold count of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 10

### DbTableNamePrefix

**Description:** Prefix of file based DB table names

**Type:** java.lang.String

**Access:** RW

**Default Value:** #

## 7.2.5 Attributes of PubSub-Databases (TgmsManager)

Fiorano.mq.pubsub.databases.file:ServiceType=TgmsManager,Name=TgmsManager

### InMemoryBufferSize

**Description:** Specifies the current message buffer size in bytes

**Type:** int

**Access:** RO

**Default Value:** 0

Fiorano.mq.pubsub.databases.file:ServiceType=TgmsManager,Name=TgmsManager,type=config

**Attributes:**

### MaxBufferSize

**Description:** Specifies maximum buffer size for in memory message caching

**Type:** int

**Access:** RW

**Default Value:** 524288

## 7.2.6 Attributes of PubSub – Topics

Fiorano.mq.pubsub.Topics:ServiceType=Topic,Name="PRIMARYTOPIC"

**Note:** It's a runtime MBean. Other Topic runtime MBeans could be accessed by assigning corresponding topic-name to the property "name" of ObjectName.

### NumberOfActiveConsumers

**Description:** Number of active consumers on this destination

**Type:** int

**Access:** RO

### NumberOfActiveProducers

**Description:** Number of active producers on this destination

**Type:** int

**Access:** RO

### NumberOfPassiveDurableConsumers

**Description:** Number of passive durable consumers on this destination

**Type:** int

**Access:** RO

## 7.2.7 Operations of PubSub - Topics

### boolean isSnooperEnabled()

**Description:** Finds whether Snooper is enabled for this Topic

**Return Type:** boolean

### Vector listDurableSubscribers()

**Description:** Gets durable subscriber for this topic

**Return Type:** java.util.Vector

Each element contains single string of format "ClientId=<CLIENT ID>, SubscriberId=<SUBSCRIBER ID>".

For example, if CLIENT ID is "DS\_CLI1" & SUBSCRIBER ID is "DS\_1" then the corresponding String would be "ClientId=DS\_CLI1,SubscriberId=DS\_1".

### void enableSnooper(String enableSnooper)

**Description:** possible values are TRUE,FALSE,DEFAULT

**Parameters:**

name="enableSnooper" type="String"

### Vector listNonDurableSubscribers()

**Description:** Gets all non-durable subscribers for this Topic

**Return Type:** java.util.Vector

Each element contains single string of format "SubscriberId=<FIORANO\_CONSUMERID>, ConnectionClientId=<CONNECTION\_CLIENT\_ID>, ConnectionHashCode=<CONNECTION\_HASH\_CODE>".

*For example if connection Hashcode associated with consumer object is 32 and the client ID is CLIENT\_SAMPLE, then the corresponding String would be "SubscriberId=FioranoConsumer, ConnectionClientId=CLIENT\_SAMPLE, ConnectionHashCode=32".*

### String getNumberOfMessagesInBound()

**Description:** Returns the number of messages pushed in the topic. Applies only when 'EnableMessageMonitoring' is set to true in the Topic Subsystem.

**Return Type:** java.lang.String

### String getRateOfMessagesInBound()

**Description:** Returns the rate at which messages are pushed in the topic. Applies only when 'EnableMessageMonitoring' is set to true in the Topic Subsystem.

**Return Type:** java.lang.String

### ArrayList getMessageMonitoringData()

**Description:** Returns the MessageMonitoring Data in tabular format

**Return Type:** java.util.ArrayList.

Structure of the elements of array list is: Time, IncomingMsgs(Value-firstValue), RateOfIncomingMsgs (Value-firstValue)

### Vector listSubscribers()

**Description:** Gets all Subscribers for this Topic.

**Return Type:** java.util.Vector

### Vector listPublishers()

**Description:** This will return the list of publishers created on that particular topic.

**Return Type:** java.util.Vector

### TopicMetaData getMetaData()

**Description:** TopicMetaData object related to this object



**Return Type:** Topic Metadata Object

### compactLastValueCacheStore

**Description:** Compacts the LV-Cache data store for the underlying topic.

**Return Type:** boolean

### resetLastValueCache

**Description:** Resets the LV-Cache on the underlying topic. Clears the data store and in-memory buffers used for LastValue Caching.

**Return Type:** boolean

## 7.2.8 Attributes of PubSub – Topics ( Config )

Fiorano.mq.pubsub.Topics:ServiceType=Topic,Name="PRIMARYTOPIC",type=config

### PurgeLevelIndex

**Description:** Number of persistent messages after which purging is to be done.

**Type:** int

**Access:** RW

**Default Value:** 100

### EnableJournaling

**Description:** Specifies whether Journaling Service is enabled on this Topic.

**Type:** boolean

**Access:** RO

**Default Value:** false

### MaxPublisherBlockTime

**Description:** This is the maximum time for which a Publisher will wait while trying to push the messages to the PSQ after it has reached 95% of its max limit.

**Type:** int

**Access:** RW

**Default Value:** 120000

### PublishBackoffThreshold

**Description:** Threshold on PSQ size for backoff algo to kick-in. Once the threshold is reached then flow-control will start the Publishers will be made to wait/block for the buffers to clear.

**Type:** double

**Access:** RW

**Default Value:** 0.6

### PublishWait

**Description:** Minimum Wait time before RTL sends next publish call, in case of slow down. The actual time is calculated by a backoff algo depending on the current size of the PSQ and PublishBackoffThreshold value.

**Type:** int

**Access:** RW

**Default Value:** 50

### PublishWaitTimeRecheckUnits

**Description:** Singular wait parameter for flow control algo. Whenever the PSQ size reaches 95% then the publisher is made to wait repeatedly until the size drop downs to 85%. The MaxWaitTime is distributed into chunks after which it again checks the size of the PSQ.

**Type:** int

**Access:** RW

**Default Value:** 8

### EnablePublisherSlowdown

**Description:** Whether slowdown the publisher when message is stored in disk after session buffer overflows due to slow subscriber and the PSQ size has reached its threshold value. Setting this parameter to false may lead to message loss for slow subscribers.

**Type:** boolean

**Access:** RW

**Default Value:** true

### StoreMessageToDisk

**Description:** Store message to disk when session buffer overflows due to slow subscriber. The messages will be stored in the PSQ only when this is set to true. In case it is set to false then the messages will be directly added to the ConnectionBuffer which will lead to extreme slowdown of publishers and message loss in extreme cases.

**Type:** boolean

**Access:** RW

**Default Value:** true

### MaxPersistentStoreSize

**Description:** Maximum size of the persistent queue in disk. It will be ignored if set to -1, that is, Infinite. If EnablePublisherSlowDown is enabled then this limit will never be reached, and in case that is disabled then any NP messages coming in after the limit has exceeded will be dropped. In case IgnorePSQSizeForPersistentMessages is also disabled at the same time then even Persistent Messages will be dropped after the limit has reached. This buffer is popularly known as PSQ and applies to each Session of a slow subscriber.

**Type:** long

**Access:** RW

**Default Value:** 1073741824

### DropOldestMessage

**Description:** Flag indicating whether oldest message should be dropped or the latest message should be dropped after persistent storage size(PSQ) crosses the maximum value and all the server buffers are filled. Generally this situation comes only when PublisherSlowDown is disabled in the server and slow subscribers are active.

**Type:** boolean

**Access:** RW

**Default Value:** true

### IgnorePSQSizeForPersistentMessages

**Description:** Whether to persist persistent messages in PSQ even through the PSQ is full. If set to true then even if the MaxPersistentStoreSize(PSQ) is exceeded still the messages will be stored to disk.

**Type:** boolean

**Access:** RW

**Default Value:** true

### IsForceFullyKillIDSubscriber

**Description:** Allow forcefully killing of Durable Subscriber. If set to true, then if a new Durable Subscriber is getting registered with the server whose Subscription ID is already present as active with the server then the Former Durable Subscriber will be forcefully killed and the later will be successfully registered with the server.

**Type:** boolean

**Access:** RW

**Default Value:** false

### MinPurgeDifference

**Description:** Minimum Number of persistent messages after which purging can be done.

**Type:** int

**Access:** RW

**Default Value:** 50

### AllowDeletionOfSubtopics

**Description:** Boolean determining if deletion of Subtopics is allowed

**Type:** boolean

**Access:** RW

**Default Value:** false

### MessagePublishTimeout

**Description:** This is the maximum time for which a Publisher will wait while trying to push the messages to a connection level buffer when it is full. It mainly applies to NP messages as for Persistent Messages the wait never ends until buffer reaches 85% again.

**Type:** int

**Access:** RW

**Default Value:** 120000

### EnableSnooper

**Description:** specifies whether Snooper Service is enabled on this topic

**Type:** java.lang.String

**Access:** RW

**Default Value:** "DEFAULT"

### EnableLastValueCache

**Description:** This parameter determines whether to enable LV-Caching on the corresponding JMS Topic.

**Type:** boolean

**Access:** RW

**Default Value:** false

### CacheKeyPropertyName

**Description:** This parameter determines the property name used to define the LV-Cache Key, in the JMS Message, using which the message is stored in the Topic's LV-Cache.

**Type:** java.lang.String

**Access:** RW

**Default Value:** "LVCacheKey"

### CachePropertyName

**Description:** This parameter determines the property name used to define whether the JMS Message should be considered to be stored in the Topic's LV-Cache.

**Type:** java.lang.String

**Access:** RW

**Default Value:** "IsLVCache"

### ParConsumptionLVCache

**Description:** This parameter determines whether to enable parallel consumption of LV-Cache messages from Subscriber's copy. If set to false, the consumption of messages will start only after the Subscriber completely copies the Topic's LV-Cache copy.

**Type:** boolean

**Access:** RW

**Default Value:** false

## 7.2.9 Operations of PubSub – TopicConnections

Florano.mq.pubsub.TopicConnections:ServiceType=TopicConnection,Name=<ClientID>

### int getBufferSize()

**Description:** Pending data size for this Handle in bytes

**Type:** int

**Access:** RO

### int getSize()

**Description:** Pending message count

**Type:** int

**Access:** RO

### int getUpperBuffSizeThreshold()

**Description:** Upper threshold for message buffer. Flow control also comes into act as soon as this limits reaches

**Type:** int

**Access:** RO

### String getClientId()

**Description:** Client ID assigned to the connection

**Type:** java.lang.String

**Access:** RO

### InetAddress getClientInetAddress()

**Description:** Inet Address of the client associated with this connection

**Type:** java.net.InetAddress

**Access:** RO

### String getConnectionCreateTime()

**Description:** Timestamp when the connection was created

**Type:** java.lang.String

**Access:** RO

### String getUsername()

**Description:** Username associated with this connection

**Type:** java.lang.String

**Access:** RO

### Hashtable listAllSessionsWithStates()

**Description:** List all Sessions in this connection and state of each

**Type:** java.lang.String

**Access:** RO

### long countMessagesInConnectionQueue()

**Description:** Returns the number of pending messages in the connection queue buffer

**Type:** long

**Access:** RO

### void close()

**Description:** Closes this connection

**Type:** void

**Access:** RO

### void closeOnDemand(String reason)

**Description:** Closes this connection on demand.

**Type:** void

**Access:** RO

## 7.2.10 Operations of PubSub – Topic Connections – FioranoSession

`Fiorano.mq.pubsub.TopicConnections:ServiceType=TopicConnection,Name=<ClientId>,session=FioranoSession`

`void close()`

**Description:** Closes this Session

**Type:** void

**Access:** RO

## 7.2.11 Operations of PubSub – Topic Connections – FioranoSession – FioranoConsumer ( FioranoProducer )

`Fiorano.mq.pubsub.TopicConnections:ServiceType=TopicConnection,Name=<ClientId>,session=FioranoSession,subscriber=FioranoConsumer`

**Or**

`Fiorano.mq.pubsub.TopicConnections:ServiceType=TopicConnection,Name=<ClientId>,session=FioranoSession,publisher=FioranoProducer`

`int getCountOfDroppedMessages`

**Description:** Returns the number of messages dropped for the subscriber. This counter is enabled if EnableMessageMonitoring is enabled. Some scenarios where the message for a Subscriber is dropped -

- When StoreMessageToDisk is set to FALSE, and the Server-side connection level buffers have become full, which means that the PSQ flow-control is disabled for the subscribers.
- When the PSQ is enabled for the subscribers and the PSQ size exceeds the maximum limit. In this case one message is dropped based on the value of DropOldestMessage parameter.
- When the server-side connection level buffers are full and the incoming message is a "DISCARDABLE" Non\_Persistent message.

**Return Type:** int

**Access:** Read-only

`int getNumSubscribedMsgs()`

**Description:** Returns the number of messages subscribed by the subscriber in the specified time

**Type:** int



**Access:** RO

`void close()`

**Description:** Closes the Subscriber/Publisher

**Type:** void

**Access:** RO

`int getNumPublishedMsgs()`

**Description:** Returns the number of messages published by this publisher in the specified time

**Type:** int

**Access:** RO

## 7.2.12 Attributes of PubSub – Topic Subsystem

Fiorano.mq.pubsub:ServiceType=PubSubManager,Name=TopicSubSystem

None

## 7.2.13 Operations of PubSub – Topic Subsystem

Fiorano.mq.pubsub:ServiceType=PubSubManager,Name=TopicSubSystem

**Operations:**

`boolean getEnableSnooperOnAllTopics()`

**Description:** get SnoopingStatus for all Topics

**Return Type:** boolean

`void setEnableSnooperOnAllTopics(boolean enableSnooper)`

**Description:** Set SnoopingStatus for all Topics

**Return Type:** void

**Parameters:**

- name="enableSnooper" type="boolean"

### Vector listClientIDs()

**Description:** Gets a vector of all the clientIDs

**Return Type:** java.util.Vector

Each element will have String representation of clientID.

### long findNumberOfDeliverableMessages(String clientID, String subscriberID)

**Description:** Gets the number of messages deliverable (undelivered+redeliverable) for a durable subscription

**Return Type:** long

**Parameters:**

- name="clientID" type="String"
- name="subscriberID" type="String"

### Vector listSubscriberIDs(String clientID)

**Description:** Gets the list of subscriberIds for given clientId

**Return Type:** java.util.Vector

Each element will have String representation of SubscriberID.

**Parameters:**

name="clientID" type="String"

### String findSubscriptionTopicName(String clientID, String subscriberID)

**Description:** Gets the topicName on which this subscription is created

**Return Type:** java.lang.String

**Parameters:**

- name="clientID" type="String"
- name="subscriberID" type="String"

### void createTopic(String adminObjectName, TopicMetaData metaData)

**Description:** Creates Topic using given meta data info

**Parameters:**

- name="adminObjectName" type="java.lang.String"

- name="metaData" type="fiorano.jms.md.TopicMetaData"

#### `void createTopic(TopicMetaData metaData)`

**Description:** Creates Topic using given meta data info

**Parameters:**

name="metaData" type="fiorano.jms.md.TopicMetaData"

#### `void createTopicConnectionFactory(String adminObjectName, TopicConnectionFactoryMetaData metaData)`

**Description:** Create a new Topic Connection Factory

**Parameters:**

- name="adminObjectName" type="java.lang.String"
- name="TopicConnectionFactoryMetaData" type="fiorano.jms.md.TopicConnectionFactoryMetaData"

#### `void createTopicConnectionFactory(TopicConnectionFactoryMetaData metaData)`

**Description:** Create a new Topic Connection Factory

**Parameters:**

name="TopicConnectionFactoryMetaData"  
type="fiorano.jms.md.TopicConnectionFactoryMetaData"

#### `void createTopicConnectionFactory(String name, String url)`

**Description:** Operation for TCF creation

**Parameters:**

- description = "TCFName" name="name" type="java.lang.String"
- description = "lookupURL" name="url" type="java.lang.String"

#### `void unsubscribe(String clientID, String subscriberID)`

**Description:** unsubscribes the durable subscription identified by the pair [clientID, subscriberID]

**Parameters:**

- name="clientID" type="String"
- name="subscriberID" type="String"

### **void deleteTopicConnectionFactory(String tcf)**

**Description:** Deletes a topic connection factory

**Parameters:**

description = "TCFName" name="name" type="String"

### **void createTopic(String topicName, byte type)**

**Description:** Creates Topic with given name of type 0 - File, 1 - Rdbms

**Parameters:**

- name="topicName" type="String"
- name="type" type="byte"

### **void deleteTopic(String topicName)**

**Description:** Delete the given topic

**Parameters:**

name="topicName" type="String"

### **HashMap listAllTopics()**

**Description:** List all Topics

**Return Type:** java.util.HashMap

Each element will be a key-value pair where key will be String depicting Topic name and value will be corresponding Topic Meta Data.

### **HashMap listAllTopicConnectionFactories()**

**Description:** List all Topics Connection Factories

**Return Type:** java.util.HashMap

Each element will be a key-value pair where key will be String depicting ConnectionFactory name and value will be corresponding Connection Factory Meta Data.

### **HashMap listAllXATopicConnectionFactories()**

**Description:** List all XA Topics Connection Factories

**Return Type:** java.util.HashMap

Each element will be a key-value pair where key will be String depicting XAConnectionFactory name and value will be corresponding XA Connection Factory Meta Data.

### **void purgeSubscriptionMessages(String clientID, String subscriberID)**

**Description:** deletes all the pending messages for this durable subscription identified by clientID and subscriberID.

**Parameters:**

- name="clientID" type="String"
- name="subscriberID" type="String"

### **void createXATopicConnectionFactory(String name, String url)**

**Description:** Operation for XATCF creation

**Parameters:**

- description = "TCFName" name="name" type="String"
- description = "lookupURL" name="url" type="String"

### **void createXATopicConnectionFactory(XATopicConnectionFactoryMetaData metaData)**

**Description:** Create a new XATopic Connection Factory

**Parameters:**

name="XATopicConnectionFactoryMetaData"  
type="fiorano.jms.md.XATopicConnectionFactoryMetaData"

### **void deleteXATopicConnectionFactory(String name)**

**Description:** Delete the given xaTopic connection factory

**Parameters:**

name="tcfName" type="String"

### **ArrayList listTopicConsumers()**

**Description:** Lists all Topic Consumers

**Return Type:** java.lang.ArrayList

Each element of this list will have a format:

[TopicName :: <TOPIC\_NAME>, **Type** : <Durable/NonDurable>, UserName :: <USER\_NAME>, ClientID :: <CLIENT\_ID>, SubscriberID :: <SUBSCRIBER\_ID>] (Subscriber ID will only exist for Durable Subscribers.)

### ArrayList listTopicProducers()

**Description:** Lists all Topic Producers

**Return Type:** java.lang.ArrayList

Each element of this list will have a format:

[TopicName :: <TOPIC\_NAME>, UserName :: <USER\_NAME>, ClientID :: <CLIENT\_ID>]

### void setEnableJournalingOnTopic(String topicName, boolean enableJournaling)

**Description:** Set Journaling Status on the Topic. By default, on Snooper Topics such as SYSTEM\_MESSAGESNOOPER\_TOPIC and SYSTEM\_MESSAGESNOOPER\_QUEUE and Events topic EVENTS\_TOPIC, Journaling is disabled.

**Parameters:**

- topicName = "Name of the topic" type = "java.lang.String"
- enableJournaling = "true/false denoting Journaling status is enabled/disabled" type = boolean

### boolean getJournalingStatusOnTopic(String topicName)

**Description:** Get Journaling Status on the Topic.

**Return Type:** boolean true if Journaling is enabled on the topic, otherwise, false.

**Parameters:**

topicName = "Name of the Topic" type = "java.lang.String"

### ArrayList listActivePassiveSubscriberInfo()

**Description:** Gets the list of subscriberIds active/passive along with thier clientID and states

**Return Type:** java.util.ArrayList

Each element of this ArrayList will be of format

CLIENT\_ID,SUBSCRIBER\_ID,ACTIVE/PASSIVE,NumberOfDeliverableMessages,TOPIC\_NAME

## recheckJournalingStatusOnTopics

**Description:** Creates the journaling topic corresponding to each topic based on the journaling status.

**Return Type:** java.lang.Boolean

True - If the operation is successful and the journaling topics are created, otherwise false.

**Parameters:** No parameters

## 7.2.14 Attributes of PubSub – Topic Subsystem Config

Fiorano.mq.pubsub:ServiceType=PubSubManager,Name=TopicSubSystem,type=config

### Attributes:

#### DupsOkBatchSize

**Description:** Batch size for DUPS\_OK Ack mode

**Type:** int

**Access:** RW

**Default Value:** 20

#### RedeliveryTriesOnListenerException

**Description:** Parameter specifying number of redelivery tries when Runtime Exception is thrown in Message Listener. This is used in AUTO\_ACKNOWLEDGE or DUPS\_OK\_ACKNOWLEDGE mode only. The redelivered message is discarded once this value is reached.

**Type:** int

**Access:** RW

**Default Value:** 2

#### PublishWait

**Description:** Minimum Wait time before RTL sends next publish call, in case of slow down. The actual time is calculated by a backoff algo depending on the current size of the PSQ and PublishBackoffThreshold value.

**Type:** int

**Access:** RW

**Default Value:** 5

### MaxNumberOfTopics

**Description:** Maximum no. of Topics that can be created, by default its -1, i.e. infinite. (It also includes Temporary Topics)

**Type:** int

**Access:** RW

**Default Value:** -1

### EnablePublisherSlowdown

**Description:** Enable/disable slowdown of the publisher when message is stored in disk after session buffer overflows due to slow subscriber and the PSQ size has reached its threshold value. Setting this parameter to false may lead to message loss for slow subscribers.

**Type:** boolean

**Access:** RW

**Default Value:** false

### DropOldestMessage

**Description:** flag indicating whether oldest message should be dropped or the latest message should be dropped after persistent storage size crosses the predefined threshold value

**Type:** boolean

**Access:** RW

**Default Value:** true

### DefaultStorageTypeForTopics

**Description:** Get the default storage types for Topics

**Type:** java.lang.String

**Access:** RW

**Default Value:** file

### StoreMessageToDisk



**Description:** Store message to disk when session buffer overflows due to slow subscriber

**Type:** boolean

**Access:** RW

**Default Value:** true

### EnableSnooperOnAllTopics

**Description:** specifies whether Snooper Service is enabled on all topics

**Type:** boolean

**Access:** RW

**Default Value:** false

### EventTopicName

**Description:** Specifies the Name of the Topic on which Events are published and processed

**Type:** java.lang.String

**Access:** RO

**Default Value:** Events\_Topic

### IsForceFullyKillIDSubscriber

**Description:** Allow forcefully killing of Durable Subscriber

**Type:** boolean

**Access:** RW

**Default Value:** false

### MaxPersistentStoreSize

**Description:** maximum size of the persistent queue in disk.

**Type:** long

**Access:** RW

**Default Value:** 1073741824

### MaxMsgInOneRecv

**Description:** Maximum number of messages that can be received in one call

**Type:** int

**Access:** RW

**Default Value:** 128

### BasicAllowedSize

**Description:** Connection level upper limit for message buffer size in bytes.

**Type:** int

**Access:** RW

**Default Value:** 131072

### UseOptimizedTCPReceive

**Description:** Use optimized TCP Receive is enabled.

**Type:** boolean

**Access:** RW

**Default Value:** true

### EnableMessageMonitoring

**Description:** Enables the message monitoring and stores the data

**Type:** boolean

**Access:** RW

**Default Value:** false

### FilePath

**Description:** the file path set to store server message monitoring data

**Type:** java.lang.String

**Access:** RW

**Default Value:**

%FIORANO\_HOME%/fmq/profiles/%PROFILE\_NAME%/run/PUBSUB/JMSX\_MESSAGEEDITOR

### TimeDuration

**Description:** the time duration in 'seconds' to monitor message flow

**Type:** int

**Access:** RW

**Default Value:** 3600

### RedeliveryTriesOnMessageException

**Description:** Parameter specifying number of redelivery tries when Runtime Exception is thrown in Message Listener. This is used in AUTO\_ACKNOWLEDGE or DUPS\_OK\_ACKNOWLEDGE mode only. The redelivered message is discarded once this value is reached. This applies to all the subscribers

**Type:** int

**Access:** RW

**Default Value:** 2

### DelayInMsgDeliveryOnListenerException

**Description:** Parameter specifying the delay in Message redelivery when Runtime Exception is thrown in Message Listener. This is used in AUTO\_ACKNOWLEDGE or DUPS\_OK\_ACKNOWLEDGE mode only. The redelivered message is discarded once max redeliver tries value is reached.

**Type:** int

**Access:** RW

**Default Value:** -1

### PublishWaitTimeRecheckUnits

**Description:** Singular wait parameter for flow control algo. Whenever the PSQ size reaches 95% then the publisher is made to wait repeatedly until the size drop downs to 85%. The MaxWaitTime is distributed into chunks after which it again checks the size of the PSQ. This applies to all the publishers.

**Type:** int

**Access:** RW

**Default Value:** 8

### PurgeLevelIndex

**Description:** Number of persistent messages after which purging is to be done if OPTIMIZED TCP RECEIVE is false. This applies to all the Topics.

**Type:** int

**Access:** RW

**Default Value:** 100

### PublishBackoffThreshold

**Description:** Threshold on PSQ size for backoff algo to kick-in. Once the threshold is reached then flow-control will start the Publishers will be made to wait/block for the buffers to clear.

**Type:** double

**Access:** RW

**Default Value:** 0.6

### IgnorePSQSizeForPersistentMessages

**Description:** Whether to persist persistent messages in PSQ even through the PSQ is full. If set to true then even if the MaxPersistentStoreSize(PSQ) is exceeded still the messages will be stored to disk. This applies to all the Publishers.

**Type:** boolean

**Access:** RW

**Default Value:** false

### JournalingTopicPrefix

**Description:** Prefix used for Journaling Topic Name. For example, if the prefix is 'JOURNAL\_' then for PRIMARYTOPIC the Journaling Topic Name will be 'JOURNAL\_PRIMARYTOPIC'. The journaling topic will be created only when Journaling is enabled on the Topic. Also, this prefix can't be null or an empty String.

**Type:** java.lang.String

**Access:** RW

**Default Value:** JOURNAL\_

### MinPurgeDifference

**Description:** Minimum Number of persistent messages after which purging can be done. Generally purging is done in batches in the server and this is the minimum number of delete request which the server will accumulate before actually deleting the messages. This applies to all the Topics.

**Type:** int

**Access:** RW

**Default Value:** 50

### AllowDeletionOfSubtopics

**Description:** Boolean determining if deletion of Subtopics is allowed. If set to true then deleting a Topic will automatically delete the SubTopics. This applies to all the topics.

**Type:** boolean

**Access:** RW

**Default Value:** true

### MessagePublishTimeout

**Description:** This is the maximum time for which a Publisher will wait while trying to push the messages to a connection level buffer when it is full. It mainly applies to NP messages as for Persistent Messages the wait never ends until buffer reaches 85% again. This applies to all the publishers.

**Type:** long

**Access:** RW

**Default Value:** 120000

### MaxPublisherBlockTime

**Description:** This is the maximum time for which a Publisher will wait while trying to push the messages to the PSQ after it has reached 95% of its max limit. This applies to all the publishers.

**Type:** long

**Access:** RW

**Default Value:** 120000

### LoadLVCAIndicesAtLookup

Description: This parameter determines whether to load the LV-Cache indices at the time when the message is first sent to the JMS Topic. If set to true, the LV-Cache indices are loaded at the time of Topic lookup.

**Type:** boolean

**Access:** RW

**Default Value:** false

### IgnoreNullLVCKey

Description: This parameter determines whether to ignore the message sent to a JMS Topic on which LV-Caching is enabled with cache-key property not set. If set to false, an exception is thrown if the message has no cache-key set.

**Type:** boolean

**Access:** RW

**Default Value:** true

### FlushLVCDDataAtStartup

Description: This parameter determines whether to clean-up LVC data stores at the time of start-up of the FioranoMQ Server.

**Type:** boolean

**Access:** RW

**Default Value:** false

## 7.2.15 Operations of PubSub – Topic Subsystem Config

None

## 7.3 PTP

### 7.3.1 Attributes of PTP – Queues

```
Fiorano.mq.ptp.Queues:ServiceType=Queue,Name="PRIMARYQUEUE"
```

**Note:** It's a runtime MBean. Other Queue runtime MBeans could be accessed by assigning corresponding queue-name to the property "name" of ObjectName.

#### NumberOfActiveConsumers

**Description:** Number of active consumers on this destination

**Type:** int

**Access:** RO

#### NumberOfActiveProducers

**Description:** Number of active producers on this destination

**Type:** int

**Access:** RO

#### NumberOfDeliverableMessages

**Description:** Gets the number of deliverable messages on this destination.

**Type:** long

**Access:** RO

#### NumberOfUndeletedMessages

**Description:** Gets the number of undeleted messages on this destination.

**Type:** long

**Access:** RO

### 7.3.2 Operations of PTP – Queues

Fiorano.mq.ptp.Queues:ServiceType=Queue,Name="PRIMARYQUEUE"

#### IExpiryMessageListener getRegisteredExpiryListener()

**Description:** Get the all RegisteredListeners for Destination

**Return Type:** fiorano.jms.services.msg.IExpiryMessageListener

#### boolean isDMQEnabled()

**Description:** Finds whether DMQ is enabled for this Queue.

**Return Type:** boolean

#### boolean isSnooperEnabled()

**Description:** Finds whether Snooper is enabled for this Queue.

**Return Type:** boolean

#### void enableDMQ(String enableSnooper)

**Description:** possible values are TRUE,FALSE,DEFAULT

**Parameters:**

name="enableDMQ" type="String"

#### void enableSnooper(String enableSnooper)

**Description:** possible values are TRUE,FALSE,DEFAULT

**Parameters:**

name="enableSnooper" type="String"

#### String getNumberOfMessagesInBound()

**Description:** Returns the number of messages pushed in the queue

**Return Type:** java.lang.String



### String getRateOfMessagesInBound()

**Description:** Returns the rate at which messages are pushed in the queue

**Return Type:** java.lang.String

### String getNumberOfMessagesOutBound()

**Description:** Returns the number of messages popped from the queue

**Return Type:** java.lang.String

### String getRateOfMessagesOutBound()

**Description:** Returns the rate at which messages are popped from the queue

**Return Type:** java.lang.String

### ArrayList getMessageMonitoringData()

**Description:** Returns the MessageMonitoring Data in tabular format

**Return Type:** java.util.ArrayList.

Structure of the elements of array list is: Time,IncomingMsgs(Value-firstValue),RateOfIncomingMsgs (Value-firstValue)

### String countPendingMessages()

**Description:** Returns the number of message present in the queue

**Return Type:** java.lang.String

### void deleteExpiredMessages()

**Description:** Delete all the expired messages.

### void purgeMessagesWithActiveClients()

**Description:** Purge all the messages for this queue with ActiveClients.

### **void purgeMessages(boolean forcefully)**

**Description:** Purge all the messages for this queue

**Parameters:** name="forcefully" type="boolean"

### **void listReceivers()**

**Description:** This will return the list of receivers created on that particular queue.

**Return Type:** java.util.Vector

Each element of this Vector will have the format:

- ReceiverName= <CONSUMER\_NAME>, ConnectionClientId= <CLIENT\_ID>, ConnectionHashCode= <CONNECTION\_HASHCODE>

**Parameters:** No Parameters

### **void listSenders()**

**Description:** This will return the list of senders created on that particular queue.

**Return Type:** java.util.Vector

Each element of this Vector will have the format:

- SenderName= <PRODUCER\_NAME>, ConnectionClientId= <CLIENT\_ID>, ConnectionHashCode= <CONNECTION\_HASHCODE>

**Parameters:** No Parameters

### **double getPersistentQueueBufferFactor()**

**Description:** Returns how much persistent buffer is filled with messages

**Return Type:** double

**Parameters:** No parameters

### **double getNonPersistentQueueBufferFactor()**

**Description:** Returns how much non\_persistent buffer is filled with messages

**Return Type:** double

**Parameters:** No parameters

### 7.3.3 Attributes of PTP – Queues (Config)

```
Fiorano.mq.ptp.Queues:ServiceType=Queue,Name="PRIMARYQUEUE",type=config
```

#### LoadBitSetOnStartup

**Description:** Loads inMemory message index status BitSet on startup.

**Type:** boolean

**Access:** RW

**Default Value:** false

#### UseInMemStatusCache

**Description:** Status Cache for Messages.

**Type:** boolean

**Access:** RW

**Default Value:** true

#### CleanupInterval

**Description:** Specifies the interval after which QueueCleaner utility cleans the messages from the Queue.

**Type:** long

**Access:** RW

**Default Value:** 60000

#### IsDbCleanupEnabled

**Description:** specifies whether Queue Cleaner utility is enabled or not, Default this utility is disable.

**Type:** boolean

**Access:** RW

**Default Value:** false

### EnableSnooper

**Description:** specifies whether Snooper Service is enabled on this queue

**Type:** java.lang.String

**Access:** RW

**Default Value:** DEFAULT

### EnableDMQ

**Description:** specifies whether DMQ Service is enabled on this queue

**Type:** java.lang.String

**Access:** RW

**Default Value:** DEFAULT

### EnableGMSQueueExpose

**Description:** Boolean specifies whether RunTimeGMS Config MBean should be exposed or not

**Type:** boolean

**Access:** RW

**Default Value:** false

### InMemoryBlockingInterval

**Description:** Blocking interval

**Type:** long

**Access:** RW

**Default Value:** 10

### PersistentInMemoryBufferSize

**Description:** Specifies the buffer size of the In-Memory Cache for PERSISTENT messages

**Type:** long

**Access:** RW

**Default Value:** 524288

### InMemoryBufferSize

**Description:** Specifies the buffer size of the In-Memory Cache for NONPERSISTENT messages

**Type:** long

**Access:** RW

**Default Value:** 1048576

### MaxPushAttempts

**Description:** Maximum number of attempts for pushing in in-memory buffer

**Type:** int

**Access:** RW

**Default Value:** 64

### WaitBetweenAttempts

**Description:** Wait time between attempts

**Type:** long

**Access:** RW

**Default Value:** 16

### DepthMonitoringEnabled

**Description:** This will enable depth (pending message count) monitoring at queue level. If this flag is enabled, pending message count can be retrieved at any moment in the server. To enable depth monitoring at queue level, depth monitoring must be enabled at server level.

**Type:** boolean

**Access:** RW

**Default Value:** false

### JumpDeletedFiles

**Description:** boolean controlling the optimization that was added for flying broom that allows the code to jump over files if there are a number of indices that are deleted

**Type:** java.lang.String

**Access:** RW

**Default Value:** FALSE

### EnableJournaling

**Description:** Specifies whether Journaling Service is enabled on this Queue.

**Type:** boolean

**Access:** RO

**Default Value:** false

### DMQExpiryTime

**Description:** Time in milliseconds after which any stored message in Dead Message Queue is deleted

**Type:** long

**Access:** RW

**Default Value:** 0

### EnableNotificationOnDeadMessage

**Description:** Enabling the Notification on DeadMessage

**Type:** boolean

**Access:** RW

**Default Value:** false

### DepthMonitoringLevels

**Description:** Jmx notifications will be fired, whenever pending message count crosses one of these depth values. All depths should be specified positive values with each of them separated by comma, for example '10,20,30'. If this value is not specified, then its value will be taken from queuing subsystem.

**Type:** java.lang.String

**Access:** RW

**Default Value:** null

### 7.3.4 Operations of PTP – Queues (Config)

None

### 7.3.5 Operations of PTP – QueueConnections

`Florano.mq.ptp.QueueConnections:ServiceType=QueueConnection,Name=<ClientID>`

#### String getClientId()

**Description:** Client ID assigned to the connection

**Type:** java.lang.String

**Access:** RO

#### InetAddress getClientInetAddress()

**Description:** Inet Address of the client associated with this connection

**Type:** java.net.InetAddress

**Access:** RO

#### String getConnectionCreateTime()

**Description:** Timestamp when the connection was created

**Type:** java.lang.String

**Access:** RO

#### String getUsername()

**Description:** Username associated with this connection

**Type:** java.lang.String

**Access:** RO

#### Vector listAllSessions()

**Description:** List all Sessions in this connection and state of each

**Type:** Vector

**Access:** RO

### `long countMessagesInConnectionQueue()`

**Description:** Returns the number of pending messages in the connection queue buffer

**Type:** long

**Access:** RO

### `void close()`

**Description:** Closes this connection

**Type:** void

**Access:** RO

### `void closeOnDemand(String reason)`

**Description:** Closes this connection on demand.

**Type:** void

**Access:** RO

### `boolean isStarted()`

**Description:** Returns true if connection is started.

**Type:** Boolean

**Access:** RO

## 7.3.6 Operations of PTP – Queue Connections – FioranoSession

`Fiorano.mq.ptp.QueueConnections:ServiceType=QueueConnection,Name=<ClientId>,session=FioranoSession`

### `void close()`

**Description:** Closes this Session

**Type:** void

**Access:** RO



### 7.3.7 Operations of PTP – Queue Connections – FioranoSession – FioranoConsumer ( FioranoProducer )

```
Fiorano.mq.ptp.QueueConnections:ServiceType=QueueConnection,Name=<ClientId>,session=FioranoSession,receiver=FioranoConsumer
```

**Or**

```
Fiorano.mq.ptp.QueueConnections:ServiceType=QueueConnection,Name=<ClientId>,session=FioranoSession,sender=FioranoProducer
```

#### `int getNumReceivedMsgs()`

**Description:** Returns the number of messages sent by this Sender in the specified time

**Type:** int

**Access:** RO

#### `void close()`

**Description:** Closes the Receiver/Sender

**Type:** void

**Access:** RO

#### `int getNumSendMsgs ()`

**Description:** Returns the number of messages sent by this Sender in the specified time

**Type:** int

**Access:** RO

### 7.3.8 Attributes of PTP – Queue Subsystem Config

```
Fiorano.mq.ptp:ServiceType=PtPManager,Name=QueuingSubSystem,type=config
```

#### `UnAckedQueueBufferSize`

**Description:** Buffer size of receiver queue for unpacked messages.

**Type:** int

**Access:** RW

**Default Value:** 10485760

### RedeliveryTriesOnListenerException

**Description:** Parameter specifying number of redelivery tries when RuntimeException is thrown in Message Listener. This is used in AUTO\_ACKNOWLEDGE or DUPS\_OK\_ACKNOWLEDGE mode only. The redelivered message is discarded once this value is reached.

**Type:** int

**Access:** RW

**Default Value:** 2

### MaxNumberOfQueues

**Description:** Maximum no. of queues that can be created, by default its -1, i.e. infinite. (It also includes Temporary Queues)

**Type:** int

**Access:** RW

**Default Value:** -1

### CleanupDmqAtStartup

**Description:** Enabling the cleanup of DeadMessageQueue at server startup.

**Type:** boolean

**Access:** RW

**Default Value:** false

### EnableSnooperOnAllQueues

**Description:** specifies whether Snooper Service is enabled on all queues

**Type:** boolean

**Access:** RW

**Default Value:** false

### EnableDMQOnAllQueues

**Description:** specifies whether DMQ Service is enabled on all queues

**Type:** boolean

**Access:** RW

**Default Value:** false

### DefaultStorageTypeForQueues

**Description:** Get the default storage types for Queues

**Type:** java.lang.String

**Access:** RW

**Default Value:** file

### PrefetchCount

**Description:** Specifies the prefetch Count for single receive call. Prefetch Count is the number of messages fetched in single receive call.

**Type:** int

**Access:** RW

**Default Value:** 3

### PrefetchThreshold

**Description:** PrefetchThreshold count used for single receive call

**Type:** int

**Access:** RW

**Default Value:** 1

### MaxPrefetchSize

**Description:** Specifies the maximum prefetched size of fetched messages in one receive call.

**Type:** int

**Access:** RW

**Default Value:** 262144

### OverflowFromBottomEnabled

**Description:** In over flow of NonPersistent messages, specifies whether messages should be dropped from the bottom of queue

**Type:** boolean

**Access:** RW

**Default Value:** false

### DMQExpiryTime

**Description:** Time in milliseconds after which any stored message in Dead Message Queue is deleted.

**Type:** long

**Access:** RW

**Default Value:** 0

### EnableNotificationOnDeadMessage

**Description:** Enabling the Notification on DeadMessage.

**Type:** boolean

**Access:** RW

**Default Value:** false

### CleanupInterval

**Description:** Specifies the interval after which QueueCleaner utility cleans the messages from the Queue.

**Type:** long

**Access:** RW

**Default Value:** 60000

### EnableMessageMonitoring

**Description:** Enables the message monitoring and stores the data

**Type:** boolean

**Access:** RW

**Default Value:** false

### FilePath

**Description:** the file path set to store server message monitoring data

**Type:** java.lang.String

**Access:** RW

**Default Value:**

%FIORANO\_HOME%/fmq/profiles/%PROFILE\_NAME%/run/PTP/JMSX\_MESSAGEMONITOR

### TimeDuration

**Description:** the time duration in 'seconds' to monitor message flow. This value should be more than 5 seconds.

**Type:** int

**Access:** RW

**Default Value:** 3600

### DepthMonitoringEnabled

**Description:** This will turn on or off depth (pending message count) monitoring at server level. If this flag is set to true then depth monitoring will be enabled at server level. Based on the depth monitoring flag at queue level, depth monitoring work for a particular queue. If this flag is set to false then depth monitoring won't work for any queue irrespective of this flag at queue level.

**Type:** boolean

**Access:** RW

**Default Value:** false

### DelayInMsgDeliveryOnListenerException

**Description:** Parameter specifying the delay in Message redelivery when RuntimeException is thrown in Message Listener. This is used in AUTO\_ACKNOWLEDGE or DUPS\_OK\_ACKNOWLEDGE mode only. The redelivered message is discarded once max redeliver tries value is reached.

**Type:** int

**Access:** RW

**Default Value:** -1

### InMemoryBlockingInterval

**Description:** Blocking interval to push a message into QueueBuffer if queue is full.

**Type:** long

**Access:** RW

**Default Value:** 10

### InMemoryBufferSize

**Description:** Specifies the buffer size of the In-Memory Cache

**Type:** long

**Access:** RW

**Default Value:** 1048576

### PersistentInMemoryBufferSize

**Description:** Specifies the buffer size of the In-Memory Cache for persistent messages.

**Type:** long

**Access:** RW

**Default Value:** 524288

### MaxPushAttempts

**Description:** Maximum number of attempts for pushing it in-memory buffer

**Type:** int

**Access:** RW

**Default Value:** 64

### WaitBetweenAttempts

**Description:** Specifies the wait time between attempts to push a message into the queue.

**Type:** int

**Access:** RW

**Default Value:** 16

### IsDbCleanupEnabled

**Description:** Specifies whether Queue Cleaner utility is enabled or not, Default is this utility is disabled.

**Type:** String

**Access:** RW

**Default Value:** "FALSE"

### UseInMemStatusCache

**Description:** Status Cache for Messages

**Type:** boolean

**Access:** RW

**Default Value:** false

### LoadBitSetOnStartup

**Description:** Loads inMemory message index status BitSet on startup

**Type:** java.lang.String

**Access:** RW

**Default Value:** false

### EnableGMSQueueExpose

**Description:** Boolean indicates about the exposing QueueAttributes at Runtime on GMS

**Type:** String

**Access:** RW

**Default Value:** false

### Exclusive

**Description:** Boolean indicates about the sharing of cache Tables.

**Type:** String

**Access:** RW

**Default Value:** true

### JumpDeletedFiles

**Description:** boolean controlling the optimization that was added for flying broom that allows the code to jump over files if there are a number of indices that are deleted

**Type:** String

**Access:** RW

**Default Value:** false

### JournalingQueuePrefix

**Description:** Prefix used for Journaling Queue Name. For eg., if the prefix is '\JOURNAL\_\'' then for PRIMARYQUEUE the Journaling Queue Name will be '\JOURNAL\_PRIMARYQUEUE\'. The journaling queue will be created only when Journaling is enabled on the Queue. Also, this prefix can't be null or an empty String.

**Type:** String

**Access:** RW

**Default Value:** JOURNAL\_

### DepthMonitoringLevels

**Description:** Jmx notifications will be fired, whenever pending message count crosses one of these depth values. All thresholds should be specified as positive values with each of them separated by comma, for example '10,20,30'. This value will be taken for all destinations, unless specified explicitly for a particular destination.

**Type:** String

**Access:** RW

**Default Value:** null

## 7.3.9 Operations of PTP – Queue Subsystem Config

None

## 7.3.10 Attributes of PTP – Queue Subsystem

None

## 7.3.11 Operations of PTP – Queue Subsystem

Fiorano.mq.ptp:ServiceType=PtPManager,Name=QueuingSubSystem



### `void createQueue(QueueMetaData metaData)`

**Description:** Creates Queue

**Parameters:**

name="metaData" type="fiorano.jms.md.QueueMetaData"

### `void createQueue(String adminObjectName, QueueMetaData metaData)`

**Description:** Creates Queue

**Parameters:**

- name="adminObjectName" type="java.lang.String"
- name="metaData" type="fiorano.jms.md.QueueMetaData"

### `void createQueue(String queueName, byte type)`

**Description:** Creates queue with given name of type 0 - File, 1 - Rdbms

**Parameters:**

- name="queueName" type="String"
- name="type" type="byte"

### `void createQueueConnectionFactory(QueueConnectionFactoryMetaDatametaData)`

**Description:** Create a new Queue Connection Factory

**Parameters:**

name="QueueConnectionFactoryMetaData"  
type="fiorano.jms.md.QueueConnectionFactoryMetaData"

### `(e) void createQueueConnectionFactory(String adminObjectName, QueueConnectionFactoryMetaData metaData)`

**Description:** Create a new Queue Connection Factory

**Parameters:**

- name="adminObjectName" type="java.lang.String"
- name="QueueConnectionFactoryMetaData"  
type="fiorano.jms.md.QueueConnectionFactoryMetaData"

### `void createQueueConnectionFactory(String name, String url)`

**Description:** Create a new Queue Connection Factory

**Parameters:**

- description = "TCFName" name="name" type="String"
- description = "lookupURL" name="url" type="String"

**void createXAQueueConnectionFactory(String name, String url)**

**Description:** Operation for XAQCF creation

**Parameters:**

- description = "QCFName" name="name" type="String"
- description = "lookupURL" name="url" type="String"

**void deleteQueue(String queueName)**

**Description:** Delete the given queue

**Parameters:**

name="queueName" type="String"

**void deleteQueueConnectionFactory(String qcfName)**

**Description:** Deletes the given queue connection factory

**Parameters:**

name="qcfName" type="String"

**void deleteXAQueueConnectionFactory(String name)**

**Description:** Deletes the given xaQueue connection factory

**Parameters:**

name="qcfName" type="String"

**boolean getEnableSnooperOnAllQueues()**

**Description:** get SnoopingStatus for all Queues

**Return Type:** boolean

**HashMap listAllQueues()**

**Description:** List all Queues

**Return Type:** java.util.HashMap

Each element will be a key-value pair where key will be String depicting Topic name and value will be corresponding Queue Meta Data.

### HashMap listAllQueueConnectionFactories()

**Description:** List all Queue Connection Factories

**Return Type:** java.util.HashMap

Each element will be a key-value pair where key will be String depicting ConnectionFactory name and value will be corresponding Connection Factory Meta Data.

### HashMap listAllXAQueueConnectionFactories()

**Description:** List all XA Queue Connection Factories

**Return Type:** java.util.HashMap

Each element will be a key-value pair where key will be String depicting XAConnectionFactory name and value will be corresponding XA Connection Factory Meta Data.

### void purgeQueueMessages(String queueName, boolean forcefully)

**Description:** purge all the messages of the queue if there are no active consumers on the queue.

**Parameters:**

- name="queueName" type="String"
- name="forcefully" type="boolean"

### void setEnableSnooperOnAllQueues(boolean enableSnooper)

**Description:** Enable Snooper on all queues

**Parameters:**

- name="enableSnooper" type="boolean"

### boolean getJournalingStatusOnQueue(String queueName)

**Description:** Get Journaling Status on the Queue.

**Parameters:**

- queueName - "Name of the Queue" type – java.lang.String

**Return Type:** boolean, true if Journaling is enabled otherwise false.

### `void setEnableJournalingOnQueue(String queueName, boolean enableJournaling)`

**Description:** Set Journaling Status on the Queue.

**Parameters:**

- queueName - "Name of the Queue" type – java.lang.String
- enableJournaling - "Journaling status enabled/disabled" type – boolean

**Return Type:** void

### `ArrayList listPtpSenders()`

**Description:** List all Queue Senders

**Parameters:** None

**Return Type:** java.util.ArrayList

Each element will have a format : [ QueueName :: <QUEUE\_NAME>, UserName :: <USER\_NAME>, ClientID :: <CLIENT\_ID>]

### `ArrayList listPtpReceivers()`

**Description:** List all Queue Receivers

**Parameters:** None

**Return Type:** java.util.ArrayList

Each element will have a format : [ QueueName :: <QUEUE\_NAME>, ReceiverID :: <RECEIVER\_ID>, Hashcode :: <CONNECTION\_HASHCODE>]

### `Long getPendingMessageCount (String queueName)`

**Description:** Returns the pending message count of a queue with the given queueName.

**Parameters:**

- queueName - "Name of the Queue" type - "java.lang.String"

**Return Type:** java.lang.Long

### `HashMap getPendingMessageCounts ()`

**Description:** This will return pending message counts of all queues for which depth monitoring is enabled.

**Parameters:** None

**Return Type:** java.util.HashMap

Map of all Queue names and corresponding depths.

### boolean isDepthMonitoringEnabled ()

**Description:** Returns whether depth monitoring is enabled or not.

**Parameters:** None

**Return Type:** boolean, true if DepthMonitoring is enabled otherwise false.

### boolean isDepthMonitoringEnabled (String queueName)

**Description:** Returns whether depth monitoring is enabled or not for the passed queue.

**Parameters:**

- queueName - "Name of the Queue" type - "java.lang.String"

**Return Type:** boolean, true if DepthMonitoring is enabled for this Queue otherwise false.

### void setDepthMonitoringEnabled (boolean enable)

**Description:** Enables or disables Depth monitoring.

**Parameters:**

- enable – "Enabled/Disabled" type – boolean

**Return Type:** void

### void setDepthMonitoringEnabled (String queueName, boolean enabled)

**Description:** Turns on or turns off queue depth monitoring at queue level.

**Parameters:**

- queueName - "Name of the Queue" type - "java.lang.String"
- enabled - "Enabled/Disabled" type – boolean

**Return Type:** void

### Collection<Long> getDepthMonitoringLevels ()

**Description:** Returns a set of levels at which jmx notifications(alerts) have to be sent. A Sorted Set is used to store the levels.

**Parameters:** None

**Return Type:** java.util.Collection<java.lang.Long>

### Collection<Long> getDepthMonitoringLevels (String queueName)

**Description:** Returns a set of levels at which jmx notifications(alerts) have to be sent. A SortedSet is used to store the levels.

**Parameters:**

- queueName - "Name of the Queue" type - "java.lang.String"

**Return Type:** java.util.Collection<java.lang.Long>

### void setDepthMonitoringLevels (Collection<Long> levels)

**Description:** Sets the levels at which jmx notifications(alerts) have to be sent when pending message count of a particular queue crossed these levels. The collection passed to this api will not be used, instead the data is transferred to a sorted set held internally.

**Parameters:**

- levels - "Levels" type - "java.util.Collection<java.lang.Long>"

**Return Type:** void

### void setDepthMonitoringLevels (String queueName, Collection<Long> levels)

**Description:** Sets the Threshold levels for the destination passed.

**Parameters:**

- queueName - "Name of the Queue" type - "java.lang.String"
- levels - "Levels" type - "java.util.Collection<java.lang.Long>"

**Return Type:** void

### boolean addDepthMonitoringLevel (Long level)

**Description:** A method to add an additional level to the collection of levels for which notifications will be sent.

**Parameters:**

- level - "Level that should be added for notification" type - "java.lang.Long"

**Return Type:** boolean, true if the level represented by level is not already configured positive value and false otherwise.

### boolean addDepthMonitoringLevel (Long level, Object source)

**Description:** A method to add an additional level to the collection of levels for which notifications will be sent.

**Parameters:**

- level - "Level that should be added for notification" type - "java.lang.Long"
- source – "Callback object which will be sent along with the notification whenever pending message count of the queue crosses the level value. User can define his own actions to be taken in source.

**Return Type:** boolean, true if the level represented by level is not already configured positive value and false otherwise.

### boolean addDepthMonitoringLevel (String queueName, Long level)

**Description:** This will add an additional level to the destination to the collection of levels for which notifications will be sent.

**Parameters:**

- queueName - "Name of the Queue" type - "java.lang.String"
- level - "Level that should be added for notification" type - "java.lang.Long"

**Return Type:** boolean, true if the level represented by level is not already configured positive value and false otherwise.

### boolean addDepthMonitoringLevel (String queueName, Long level, Object source)

**Description:** This will add an additional level to the destination to the collection of levels for which notifications will be sent.

**Parameters:**

- queueName - "Name of the Queue" type - "java.lang.String"
- level - "Level that should be added for notification" type - "java.lang.Long"
- source – "Callback object which will be sent along with the notification whenever pending message count of the queue crosses the level value. User can define his own actions to be taken in source.

**Return Type:** boolean, true if the level represented by level is not already configured positive value and false otherwise.

### boolean removeDepthMonitoringLevel (Long level)

**Description:** A method to remove level from the collection of levels for which notifications will be sent.

**Parameters:**

- level - "Level that should be removed from collection of levels for which notification is sent" type - "java.lang.Long"

**Return Type:** boolean, true if level is previously present and removed. False, otherwise

#### boolean removeDepthMonitoringLevel (Long level, Object source)

**Description:** A method to remove level from the collection of levels for which notifications will be sent.

**Parameters:**

- level - "Level that should be removed from collection of levels for which notification is sent" type - "java.lang.Long"
- source – "Callback object which will be sent along with the notification whenever pending message count of the queue crosses the level value. User can define his own actions to be taken in source."

**Return Type:** boolean, true if level is previously present and removed. False, otherwise

#### boolean removeDepthMonitoringLevel (String queueName, Long level)

**Description:** A method to remove level from the collection of levels for which notifications will be sent.

**Parameters:**

- queueName - "Name of the Queue" type - "java.lang.String"
- level - "Level that should be removed from collection of levels for which notification is sent" type - "java.lang.Long"

**Return Type:** boolean, true if level is previously present and removed. False, otherwise

#### boolean removeDepthMonitoringLevel (String queueName, Long level, Object source)

**Description:** A method to remove level from the collection of levels for which notifications will be sent.

**Parameters:**

- queueName - "Name of the Queue" type - "java.lang.String"
- level - "Level that should be removed from collection of levels for which notification is sent" type - "java.lang.Long"
- source – "Callback object which will be sent along with the notification whenever pending message count of the queue crosses the level value. User can define his own actions to be taken in source."

**Return Type:** boolean, true if level is previously present and removed. False, otherwise



### recheckJournalingStatusOnQueues

**Description:** Creates the journaling queue corresponding to each queue based on the journaling status.

**Return Type:** java.lang.Boolean

True - If the operation is successful and the journaling queues are created, otherwise false.

**Parameters:** No parameters

### 7.3.12 Attributes of PTP – FileDBManager6 Config

Fiorano.mq.ptp.databases.file.FileDBManager:ServiceType=FileDBManager,Name=FileDBManager6,type=config

#### Path

**Description:** Path for Initialization of FileBased dataStorage

**Type:** "java.lang.String"

**Access:** RW

**Default Value:** null

#### DeletedThresholdPercent

**Description:** Threshold percentage of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 50

#### DeletedThresholdCount

**Description:** Threshold count of deleted Entries for starting Cache Compaction Process

**Type:** int

**Access:** RW

**Default Value:** 10

### DbTableNamePrefix

**Description:** Prefix of file based DB table names

**Type:** "java.lang.String"

**Access:** RW

**Default Value:** #

# Chapter 8: Bridge

---

Contains MBeans related to Fiorano MQ Bridge.

## 8.1 Link

### 8.1.1 Operation on BridgeLink

```
Fiorano.bridge.Link:Name=FMQToFMQ-OneWay,ServiceType=BridgeLink
```

#### `boolean linkStarted()`

**Description:** Shows if link is in StartedState

**Return Type:** boolean(this boolean is true when link is started and false when link is down)

**Parameters:** None

#### `void start()`

**Description:** Operation to start a link

**Return Type:** No return type

**Parameters:** None

#### `void stop()`

**Description:** Operation to stop a link

**Return Type:** No return type

**Parameters:** None

#### `LinkConfig showLinkConfiguration()`

**Description:** Operation to Link Configuration

**Return Type:** Link configuration

**Parameters:** None

### **void editLinkConfiguration(LinkConfiguration linkConfig)**

**Description:** Operation to edit a linkConfigurations

**Return Type:** No return type

**Parameters:**

name="LinkConfiguration" type="fiorano.jms.ctr.dxml.LinkConfiguration"

### **Vector showChannelConfigurations()**

**Description:** Operation to show all ChannelConfigurations

**Return Type:** Vector

**Parameters:** None

### **ChannelConfig showChannelConfiguration(String sourceQueueName, String targetQueueName)**

**Description:** Operation to show a channelConfiguration

**Return Type:** ChannelConfig

**Parameters:**

name="sourceQueue" type="java.lang.String" description="SourceQueue (required) "

name="targetQueue" type="java.lang.String" description="TargetQueue (required) "

### **void addChannel(ChannelConfig channelConfig)**

**Description:** Operation to add a channel to existing link

**Return Type:** No return type

**Parameters:**

name="ChannelConfig" type="fiorano.jms.ctr.dxml.ChannelConfig" description="channel configuration of channel being added"

### **void removeChannel(String channelName)**

**Description:** Operation to remove a channel from existing link

**Return Type:** No return type

**Parameters:**

name="Channel name" type="java.lang.String" description="Channel name"

## 8.1.2 Attributes of BridgeLink

`Fiorano.Bridge.Link:Name=FMQToFMQ-OneWay,ServiceType=BridgeLink`

### Name

**Description:** Link name

**Type:** String

**Access:** Read-only

**Default Value:** null

## 8.2 FioranoBridge

### 8.2.1 Operations on FioranoConnectionManager

`Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectorManager`

#### `void stopLink(String linkName)`

**Description:** Operation to stop a link

**Return Type:** No return type

**Parameters:**

`name="Link name" type="java.lang.String" description="Link name to be stopped"`

#### `void startLink(String linkName)`

**Description:** Operation to start a link

**Return Type:** Link name

**Parameters:**

`name="Link name" type="java.lang.String" description="Link name to be started"`

#### `void addLink(LinkConfiguration linkConfig)`

**Description:** Operation to add a new link

**Return Type:** No return type

**Parameters:**

`name="LinkConfiguration" type="fiorano.jms.ctr.dxml.LinkConfiguration"`

### `void removeLink(String linkName)`

**Description:** Operation to remove a link

**Return Type:** No return type

**Parameters:**

name="Link name" type="java.lang.String" description="Link name being removed"

## 8.2.2 Attributes of Bridge

Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectorManager,type=config

### Name

**Description:** Name of the bridge instance

**Type:** String

**Access:** read-write

**Default Value:** null

### AvoidLoopBack

**Description:** If true, loopback of messages across the bridge is not allowed

**Type:** boolean

**Access:** read-write

**Default Value:** True

### PingInterval

**Description:** Value of Ping Interval

**Type:** long

**Access:** read-write

**Default Value:** 10000

### 8.2.2.1 Attributes of Link

Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectorManager,type=config,Link=<FMQToFMQ-OneWay>

#### Name

**Description:** Name

**Type:** String

**Access:** read-write

**Default Value:** null

#### 8.2.2.1.1 Attributes of TargetServer

Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectionManager,Type=config,Link=<FMQToFMQ-OneWay>,TargetServer=<FMQ2>

#### Name

**Description:** Name

**Type:** String

**Access:** read-write

**Default Value:** null

#### 8.2.2.1.1.1 Attributes of Target ConnectionInfo

Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectionManager,type=config,Link=<FMQToFMQ-OneWay>,TargetServer=<FMQ2>,ConnectionInfo=<TgtConnectionInfo>

##### a) ServerType

**Description:** Server Type

**Type:** String

**Access:** read-write

**Default Value:** JMS

##### b) Name

**Description:** Name

**Type:** String

**Access:** read-write

**Default Value:** ConnectionInfo1

**c) ProviderURL**

**Description:** Provider URL

**Type:** String

**Access:** read-write

**Default Value:** http://localhost:1856

**d) InitialContextFactory**

**Description:** The Initial Context Factory

**Type:** String

**Access:** read-write

**Default Value:** fiorano.jms.runtime.naming.FioranoInitialContextFactory

**e) BridgeUser**

**Description:** User Name of Bridge

**Type:** String

**Access:** read-write

**Default Value:** ayrton

**f) BridgePassword**

**Description:** Password of the bridge user

**Type:** String

**Access:** read-write

**Default Value:** senna

**g) QCF**

**Description:** The Queue Connection Factory

**Type:** String

**Access:** read-write

**Default Value:** primaryQCF



#### **h) Protocol**

**Description:** Protocol for connection

**Type:** String

**Access:** read-write

**Default Value:** TCP

#### **i) SecurityPrincipal**

**Description:** Security Principal

**Type:** String

**Access:** read-write

**Default Value:** anonymous

#### **j) Security Credentials**

**Description:** Security Credentials

**Type:** String

**Access:** read-write

**Default Value:** anonymous

#### **k) ServerSecurityManager**

**Description:** Server Security Manager

**Type:** String

**Access:** read-write

**Default Value:** null

#### **8.2.2.1.2 Attributes of Source Server**

```
Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectionManager,type=config,Link=<FMQToFMQ-OneWay>,SourceServer=<FMQ1>
```

#### **a) Name**

**Description:** Name

**Type:** String

**Access:** read-write

**Default Value:** FMQ1

### 8.2.2.1.2.1 Attributes of Source ConnectionInfo

Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectionManager,type=config,Link=<FMQToFMQ-OneWay>,SourceServer=<FMQ1>,ConnectionInfo=<SrcConnectionInfo>

#### a) ServerType

**Description:** Server Type

**Type:** String

**Access:** read-write

**Default Value:** JMS

#### b) Name

**Description:** Name

**Type:** String

**Access:** read-write

**Default Value:** ConnectionInfo1

#### c) ProviderURL

**Description:** Provider URL

**Type:** String

**Access:** read-write

**Default Value:** http://localhost:1856

#### d) InitialContextFactory

**Description:** The Initial Context Factory

**Type:** String

**Access:** read-write

**Default Value:** fiorano.jms.runtime.naming.FioranoInitialContextFactory

#### e) BridgeUser

**Description:** User Name of Bridge

**Type:** String

**Access:** read-write

**Default Value:** ayrton

**f) BridgePassword**

**Description:** Password of the bridge user

**Type:** String

**Access:** read-write

**Default Value:** senna

**g) QCF**

**Description:** The Queue Connection Factory

**Type:** String

**Access:** read-write

**Default Value:** primaryQCF

**h) Protocol**

**Description:** Protocol for connection

**Type:** String

**Access:** read-write

**Default Value:** TCP

**i) SecurityPrincipal**

**Description:** Security Principal

**Type:** String

**Access:** read-write

**Default Value:** anonymous

**j) Security Credentials**

**Description:** Security Credentials

**Type:** String

**Access:** read-write

**Default Value:** anonymous

## k) ServerSecurityManager

**Description:** Server Security Manager

**Type:** String

**Access:** read-write

**Default Value:** null

### 8.2.2.1.3 Attributes of Channel

```
Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectionManager,type=config,Link=<FMQToFMQ-OneWay>,Channel=<FMQChannel1>
```

#### a) Name

**Description:** Name

**Type:** String

**Access:** read-write

**Default Value:** FMQChannel1

#### 8.2.2.1.3.1 Attributes of Source Queue

```
Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectionManager,type=config,Link=<FMQToFMQ-OneWay>,Channel=<FMQChannel1>,SourceQueue=<SourceQueue>
```

##### a) Name

**Description:** Name

**Type:** String

**Access:** read-write

**Default Value:** SourceQueue

#### 8.2.2.1.3.1.1 Attributes of SourceQueueInfo

```
Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectionManager,type=config,Link=<FMQToFMQ-OneWay>,Channel=<FMQChannel1>,SourceQueue=<SourceQueue>,QueueInfo=<SourceQueueInfo>
```

##### a) Name

**Description:** Name of the LinkTopicInfo

**Type:** String

**Access:** read-write

**Default Value:** QueueInfo1

#### b) MsgSelector

**Description:** Message Selector

**Type:** String

**Access:** read-write

**Default Value:** null

#### c) QueueName

**Description:** Name of the source Queue

**Type:** String

**Access:** read-write

**Default Value:** null

### 8.2.2.1.3.2 Attributes of TargetQueue

Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectionManager,type=config,Link=<FMQToFMQ-OneWay>,Channel=<FMQChannel1>,TargetQueue=<TargetQueue>

#### a) Name

**Description:** Name of the LinkTopicInfo

**Type:** String

**Access:** read-write

**Default Value:** targetQueue1

### 8.2.2.1.3.2.1 Attributes of TargetQueueInfo

Fiorano.Bridge:ServiceType=FioranoBridge,Name=FioranoConnectionManager,type=config,Link=<FMQToFMQ-OneWay>,Channel=<FMQChannel1>,TargetQueue=<TargetQueue>,QueueInfo=<TargetQueueInfo>

#### a) Name

**Description:** Name of the LinkTopicInfo

**Type:** String

**Access:** read-write

**Default Value:** QueueInfo1

**b) MsgSelector**

**Description:** Message Selector

**Type:** String

**Access:** read-write

**Default Value:** null

**c) QueueName**

**Description:** Name of the source Queue

**Type:** String

**Access:** read-write

**Default Value:** null

# Chapter 9: Repeater

---

## 9.1 Link

### 9.1.1 Operation on RepeaterLink

Fiorano.Repeater.Link:Name=LocalHostToLocalHost,ServiceType=RepeaterLink

#### void start()

**Description:** Operation to start a link

**Return Type:** No return type

**Parameters:** None

#### void stop()

**Description:** Operation to stop a link

**Return Type:** No return type

**Parameters:** None

#### LinkConfig showLinkConfiguration()

**Description:** Operation to Link Configuration

**Return Type:** LinkConfig

**Parameters:** None

#### void editLinkConfiguration(LinkConfig linkConfig)

**Description:** Operation to edit a linkConfigurations

**Return Type:** No return type

**Parameters:**

```
name="LinkConfig" type="fiorano.jms.cfg.rp2.dxml.LinkConfig" description="Link  
Config(required) "
```

### Vector showLinkTopicConfigurations()

**Description:** Operation to show all linkTopicConfigurations

**Return Type:** Vector

**Parameters:** None

### LinkTopicConfig showLinkTopicConfiguration(String sourceTopicName, String targetTopicName)

**Description:** Operation to show a linkTopicConfiguration

**Return Type:** LinkTopicConfig

**Parameters:**

name="sourceTopicName" type="java.lang.String" description="SourceTopicName(required)"

name="targetTopicName" type="java.lang.String" description="TargetTopicName(required)"

### Vector showReplyTopicConfigurations()

**Description:** Operation to show all replyTopicConfigurations

**Return Type:** Vector

**Parameters:** None

### ReplyTopicConfig showReplyTopicConfiguration(String replyTopicName)

**Description:** Operation to show a replyTopicConfiguration

**Return Type:** ReplyTopicConfig

**Parameters:**

name="replyTopicName" type="java.lang.String" description="ReplyTopicName(required)"

### void addLinkTopic(LinkTopicConfig linkTopicConfig)

**Description:** Operation to add a linkTopic

**Return Type:** No return type

**Parameters:**

name="LinkTopicConfig" type="florano.jms.cfg.rp2.dxml.LinkTopicConfig"  
description="LinkTopicConfig(required)"



### **void removeLinkTopic(String sourceTopicName, String targetTopicName)**

**Parameters:**

name="sourceTopicName" type="java.lang.String" description="sourceTopicName"

name="targetTopicName" type="java.lang.String" description="targetTopicName"

### **void addReplyTopic(ReplyTopicConfig replyTopicConfig)**

**Description:** Operation to add a replyTopic

**Return Type:** No return type

**Parameters:**

name="ReplyTopicConfig" type="fiorano.jms.cfg.rp2.dxml.ReplyTopicConfig"  
description="ReplyTopicConfig(required)"

### **void removeReplyTopic(String replyTopicName)**

**Description:** Operation to remove a replyTopic

**Return Type:** No return type

**Parameters:**

name="replyTopicName" type="java.lang.String" description="Reply Topic Name"

## **9.1.2 Attributes of RepeaterLink**

Fiorano.Repeater.Link:Name=LocalHostToLocalHost,ServiceType=RepeaterLink

### **Name**

**Description:** Link name

**Type:** String

**Access:** Read-only

**Default Value:** null

## 9.2 RepeaterManager

### 9.2.1 Operations on FioranoRepeaterManager

Fiorano.Repeater: ServiceType=RepeaterManager,Name=FioranoRepeaterManager

#### ObjectName addLink(LinkConfig linkConfig)

**Description:** Operation to add a new link

**Return Type:** ObjectName

**Parameters:**

name="LinkConfig" type="fiorano.jms.cfg.rp2.dxml.LinkConfig"  
description="LinkConfig(required)"

#### void removeLink(String linkName)

**Description:** Operation to remove a link

**Return Type:** No return type

**Parameters:**

name="LinkName" type="java.lang.String" description="Link Name(required)"

#### String dumpRepeaterInfo()

**Description:** Get repeater configuration as a String

**Return Type:** String

**Parameters:** None

#### void stopLink(String linkName)

**Description:** Operation to stop a link

**Return Type:** No return type

**Parameters:**

name="LinkName" type="java.lang.String" description="Link Name(required)"

### `void startLink(String linkName)`

**Description:** Operation to start a link

**Return Type:** No return type

**Parameters:**

name="LinkName" type="java.lang.String" description="Link Name(required)"

### `ObjectName findLinkInfo(String linkName)`

**Description:** Gets all links with names stored in a HashTable

**Return Type:** ObjectName

**Parameters:**

name="LinkName" type="java.lang.String" description="Link Name(required)"

### `StatusConfig showStatus()`

**Description:** Shows the status of repeater

**Return Type:** StatusConfig

**Parameters:** None

### `Vector findDurSubscriptionInfo()`

**Description:** Finds DurableSubscriptionInfo of repeater

**Return Type:** Vector

**Parameters:** None

## 9.2.2 Attributes of FioranoRepeaterManager

Fiorano.Repeater:ServiceType=RepeaterManager, Name=FioranoRepeaterManager

### Name

**Description:** Gets the Name of repeater

**Type:** String

**Access:** read-only

**Default Value:** null

### 9.2.2.1 Attributes of Repeater

`Fiorano.Repeater:ServiceType=RepeaterManager,Name=FioranoRepeaterManager,type=config`

#### Name

**Description:** Name of the Repeater Instance

**Type:** String

**Access:** read-write

**Default Value:** Repeater

#### DurableSubscriptionInfoFileName

**Description:** Durable Subscription information file

**Type:** String

**Access:** read-write

**Default Value:** rp\_durable.xml

#### PingInterval

**Description:** Interval after which repeater tries to connect to server

**Type:** long

**Access:** read-write

**Default Value:** 10000

#### AvoidLoopback

**Description:** Handle cyclic link in repeater

**Type:** boolean

**Access:** read-write

**Default Value:** true

#### TransactionSize

**Description:** The size of Transaction

**Type:** int

**Access:** read-write

**Default Value:** 0

### TransactionTimeout

**Description:** In case the message is not received (by the subscriber) in this timeout period, the transaction commits the already received messages

**Type:** int

**Access:** read-write

**Default Value:** 10

#### 9.2.2.1.1 Attributes of Link

```
Fiorano.Repeater:ServiceType=RepeaterManager,Name=FioranoRepeaterManager,type=config,Link=<LocalHostToLocalHost>
```

##### a) Name

**Description:** Name of the link

**Type:** String

**Access:** read-write

**Default Value:** Link

#### 9.2.2.1.1.1 Attributes of Source Server

```
Fiorano.Repeater:ServiceType=RepeaterManager,Name=FioranoRepeaterManager,type=config,Link=<LocalHostToLocalHost>,SourceServer=<LocalHostSourceServer>
```

##### a) Name

**Description:** Name of the Source Server

**Type:** String

**Access:** read-write

**Default Value:** null

#### 9.2.2.1.1.1.1 Attributes of ConnectionInfo

```
Fiorano.Repeater:ServiceType=RepeaterManager,Name=FioranoRepeaterManager,type=config,Link=<LocalHostToLocalHost>,SourceServer=<LocalHostSourceServer>,ConnectionInfo=<SrcConnectionInfo>
```

**a) Name**

**Description:** Name of this ConnectionInfo

**Type:** String

**Access:** read-write

**Default Value:** ConnectionInfo1

**b) ProtocolType**

**Description:** Communication protocol for this ConnectionInfo

**Type:** String

**Access:** read-write

**Default Value:** TCP

**c) JMXProtocol**

**Description:** Protocol of the JMX Server

**Type:** String

**Access:** read-write

**Default Value:** rmi

**d) JMXPort**

**Description:** JMX Port of the Server

**Type:** String

**Access:** read-write

**Default Value:** 1858

**e) ServerURL**

**Description:** FMQ Connect URL

**Type:** String

**Access:** read-write

**Default Value:** http://localhost:1856

**f) UserName**

**Description:** Login Name

**Type:** String

**Access:** read-write

**Default Value:** anonymous

#### g) Password

**Description:** Login password

**Type:** String

**Access:** read-write

**Default Value:** anonymous

#### h) TopicConnectionFactory

**Description:** Topic Connection Factory which will be used for creating connection

**Type:** String

**Access:** read-write

**Default Value:** primaryTCF

#### i) ServerSecurityManager

**Description:** Server security manager

**Type:** String

**Access:** read-write

**Default Value:** Repeater

### 9.2.2.1.1.2 Attributes of Target Server

`Fiorano.Repeater:ServiceType=RepeaterManager,Name=FioranoRepeaterManager,type=config,Link=<LocalHostToLocalHost>,TargetServer=<LocalHostTargetServer>`

#### a) Name

**Description:** Name of the TargetServer

**Type:** String

**Access:** read-write

**Default Value:** null

### 9.2.2.1.1.2.1 Attributes of Target ConnectionInfo

Fiorano.Repeater:ServiceType=RepeaterManager,Name=FioranoRepeaterManager,type=config,Link=<LocalHostToLocalHost>,TargetServer=<LocalHostTargetServer>,ConnectionInfo=<TgtConnectionInfo>

#### a) Name

**Description:** Name of this ConnectionInfo

**Type:** String

**Access:** read-write

**Default Value:** ConnectionInfo1

#### b) ProtocolType

**Description:** Communication protocol for this ConnectionInfo

**Type:** String

**Access:** read-write

**Default Value:** TCP

#### c) JMXProtocol

**Description:** Protocol of the JMX Server

**Type:** String

**Access:** read-write

**Default Value:** rmi

#### d) JMXPort

**Description:** JMX Port of the Server

**Type:** String

**Access:** read-write

**Default Value:** 1858

#### e) ServerURL

**Description:** FMQ Connect URL

**Type:** String

**Access:** read-write



**Default Value:** http://localhost:1856

**f) UserName**

**Description:** Login Name

**Type:** String

**Access:** read-write

**Default Value:** anonymous

**g) Password**

**Description:** Login password

**Type:** String

**Access:** read-write

**Default Value:** anonymous

**h) TopicConnectionFactory**

**Description:** Topic Connection Factory which will be used for creating connection

**Type:** String

**Access:** read-write

**Default Value:** primaryTCF

**i) ServerSecurityManager**

**Description:** Server Security Manager

**Type:** String

**Access:** read-write

**Default Value:** Repeater

**9.2.2.1.1.3 Attributes of LinkTopicInfo**

`Fiorano.Repeater:ServiceType=RepeaterManager,Name=FioranoRepeaterManager,type=config,Link=<LocalHostToLocalHost>,LinkTopicInfo=<LinkTopicInfo>`

**a) Name**

**Description:** Name of the LinkTopicInfo

**Type:** String

**Access:** read-write

**Default Value:** LinkTopicConfig1

**b) IsDurable**

**Description:** Is the Link durable

**Type:** String

**Access:** read-write

**Default Value:** false

**c) ConnectionMode**

**Description:** This parameter specifies whether same JMS connection should be used for replicating the data across JMS servers or separate connection for each link

**Type:** String

**Access:** read-write

**Default Value:** shared

**d) Type**

**Description:** Specifies whether the link should be permanently connected to the target server or only replicate if a subscriber exists

**Type:** String

**Access:** read-write

**Default Value:** ALWAYS

**e) ReplyOn**

**Description:** Reply on destination

**Type:** String

**Access:** read-write

**Default Value:** ReplyOn

**f) SourceTopicName**

**Description:** Source destination for this Link

**Type:** String

**Access:** read-write

**Default Value:** SourceTopicName

### g) TargetTopicName

**Description:** Target destination for this link

**Type:** String

**Access:** read-write

**Default Value:** TargetTopicName

### h) MessageSelector

**Description:** Message selector for this link

**Type:** String

**Access:** read-write

**Default Value:** null

## 9.2.2.1.1.4 Attributes of Reply Topic Information

```
Fiorano.Repeater:ServiceType=RepeaterManager,Name=FioranoRepeaterManager,type=config,Link=<LocalHostToLocalHost>,ReplyTopicInfo=<ReplyTopicConfig1>
```

### a) Name

**Description:** Name of the ReplyTopicInfo

**Type:** String

**Access:** read-write

**Default Value:** ReplyTopicConfig1

### b) IsDurable

**Description:** Is the ReplyTopic durable

**Type:** String

**Access:** read-write

**Default Value:** false

### c) ReplyTopicName

**Description:** Name of the reply topic

**Type:** String

**Access:** read-write

**Default Value:** null

**d) MessageSelector**

**Description:** Message selector for reply link

**Type:** String

**Access:** read-write

**Default Value:** false

# Chapter 10: Dispatcher

---

Contains MBeans related to Dispatcher Server.

## 10.1 Operations of Dispatcher

`Fiorano:ServiceType=Dispatcher,Name=Dispatcher`

**(a) void addServerToCluster(String userName, String passwd, String ACF, String conns, int maxCon, String url, String backupUrl, String transportProtocol, String securityProtocol, String securityManager)**

**Description:** adds the specified server to the cluster

**Return Type:** void

**Parameters:**

- name="User name" type="String" description="Username of the server to be added"
- name="Password" type="String" description="password for the user with UserName"
- name="Admin Connection Factory" type="String" description="name of the Admin Connection Factory on the target server"
- name="Connections" type="String" description="A comma separated list of protocols supported by this server"
- name="Maximum Connections" type="int" description="Maximum connections allowed on the server"
- name="URL" type="String" description=" Url of the target server"
- name="Backup URL" type="String" description="backup url of the target server"
- name="Transport Protocol" type="String" description="transport protocol of the target server "
- name="Security Protocol" type="String" description="security protocol of the target server."
- name="Security Manager" type="String" description="security manager used to connect to the target server"

**(b) void addServerToCluster(ServerMetaData disServer, String loginName, String passwd, String adminConnectionFactory)**

**Description:** adds the specified server to the cluster.

**Return type:** void

**Parameters:**

- Name="ServerMetaData" type="Fiorano.jms.md.ServerMetaData" description=" Object containing metadata of the Target Server"

- Name="User Name" type="String" description="username of the server to be added"
- Name="Password" type="String" description="password for the user"
- Name="Admin Connection Factory" type="String" description="name of admin connection factory on the target server name"

**(c) void removeServerFromCluster(URL server)**

**Description:** removes the server corresponding to the Url from the Dispatcher cluster

**Return type:** void

**Parameters:**

Name="URL" type="String" description="URL of server you want to remove from the cluster"

**(d) void makePrefferedServer(String url)**

**Description:** sets the server corresponding to the Url as a preferred server of the cluster.

**Return type:** void

**Parameters:**

Name="URL" type="String" description="URL of server you want to make as preferred from the cluster"

**(e) void makePrefferedServer(ServerMetaData disServer, String loginName, String passwd, String adminConnectionFactory)**

**Description:** sets the server corresponding to the server meta data as a preferred server of the cluster.

**Return type:** void

**Parameters:**

- Name="ServerMetaData" type="Fiorano.jms.md.ServerMetaData" description="Object containing metadata of the Target Server"
- Name="User Name" type="String" description="username of the server to be added"
- Name="Password" type="String" description="password for the user"
- Name="Admin Connection Factory" type="String" description="name of admin connection factory on the target server name"

**(f) Vector listAllServersInCluster()**

**Description:** returns a vector of all the servers present in the Cluster.

**Return type:** Vector

**Parameters:** none

**(g) Vector listActiveServersInCluster()**

**Description:** returns a vector of all the active servers present in the Cluster.

**Return type:** void

**Parameter:** none

**(h) Vector listActiveServersUri()**

**Description:** returns a vector of all the active server URLs present in the Cluster.

**Return type:** void

**Parameters:**

Name="URL" type="String" description="URL of server you want to remove from the cluster"

**(i) void setMaximumClientConnections(String serverUri, int count)**

**Description:** sets the maximum client connections allowed for the server.

**Return type:** void

**Parameters:**

- Name="URL" type="String" description="URL of server you want to set the maximum connections"
- Name="count" type="int" description="Maximum Client Connections allowed"

**(j) String findPreferredServer()**

**Description:** "Gets the URL of preferred Server in the cluster"

**Return type:** String

**Parameters:** none

## 10.2 Attributes of Dispatcher Config

Fiorano:ServiceType=Dispatcher,Name=Dispatcher,type=config

**(e) Name**

**Description:** Name of the Dispatcher Server.

**Type:** String

**Access:** RW

**Default Value:** fioranoMQDisaptcher

#### (f) PingTimeoutAttribute

**Description:** Time Out after which the connection to the Server is pinged.

**Type:** Long

**Access:** RW

**Default Value:** 30000

#### (g) InitialTimeoutAttribute

**Description:** Initial TimeOut for connecting with a server in cluster

**Type:** Long

**Access:** RW

**Default Value:** 2000

### 10.3 Attributes of Server in Dispatcher Config

Fiorano:ServiceType=Dispatcher,Name=Dispatcher,type=config,Server=Server\_LocaloHost\_1856

#### (a) LoginName

**Description:** login name for the Server.

**Type:** String

**Access:** RW

**Default Value:** admin

#### (b) Password

**Description:** login password for the Server.

**Type:** String

**Access:** RW

**Default Value:** passwd

#### (c) Name

**Description:** Name of the Server.

**Type:** String

**Access:** RW



**Default Value:** Server\_localhost\_1956

**(d) Admin ConnectionFactory**

**Description:** Admin connection Factory on the Server that is to be used.

**Type:** String

**Access:** RW

**Default Value:** primaryACF

**(e) Maximum Connections**

**Description:** Maximum client connections allowed to the Server.

**Type:** Integer

**Access:** RW

**Default Value:** 100

**(f) URL**

**Description:** URL of the Server

**Type:** String

**Access:** RW

**Default Value:** http://localhost:1856

**(g) Backup URL**

**Description:** backup URL for the Server.

**Type:** String

**Access:** RW

**Default Value:** http://localhost:1956