

FioranoMQ® 9

JMX API Guide

Copyright (c) 1999-2008, Fiorano Software Technologies Pvt. Ltd.,

Copyright (c) 2008-2009, Fiorano Software Pty. Ltd.

All rights reserved.

This software is the confidential and proprietary information of Fiorano Software ("Confidential Information"). You shall not disclose such ("Confidential Information") and shall use it only in accordance with the terms of the license agreement enclosed with this product or entered into with Fiorano.

Contents

FioranoMQ JMX API's	1
Loggers	1
MBeans related to Logger	1
JNDI	9
Connection Manager	10
Jmx	16
Etc	19
Security	53
MQ	59

FioranoMQ JMX API's

FioranoMQ exposes a lot of JMX API's which the user can invoke at runtime to change the configuration and behaviour of the MQ server in online mode.

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.

Loggers

MBeans related to Logger

%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

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

Operations

1. 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 → Configuration of the Appender.

Constructor: public AppenderConfig()

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

AppenderType → AppenderType, 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. Eg. { %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. Eg. 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. Eg 2 means, we 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)

(b) *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. Eg mqout.log and mqerr.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. Eg 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. Eg. { %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.

(c) 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. Eg. { %F, %M} %-5p [%c{1}] %m%n will print CodeFileName, MethodName where the log event is generated

target: Applicable to Console appender only. Eg. 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.

(d) 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

(e) public void removeAppender(String name)

- *Description:* Removes any registered appender with this logger
- *Return Type :* Null
- *Parameters:*
name : Name of the appender

(f) 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:* Null.

(g) 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

(h) 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

(i) 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

(j) 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

(2)

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

Attributes

(a) LogLevel

- *Description* → level of logging. No log event will be generated for logging statement above this level.
- *Type* → int
- *Access* → RW
- *Default Value* → -1.

JNDI

MBeans Related to JNDI Services in the FioranoMQ Server

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

Operations

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

- Description → Looks up an Object in the server.
- Return Type → MetaData of the lookedup Object
- Parameters → Name of the object.

2) Fiorano.jndi:ServiceType=NamingManager,Impl=FILE,Name=NativeFileNamingManager,type=config

Attributes

(a) AdminObjectFileName

- Description → Name of the file used for storing/managing AdminObject Names
- Type → String
- Access → RO
- Default Value → admin.dat

(b) AdminObjectBackupFilename

- Description → Name of the file used for backup of the admin file during defragmentation
- Type → String
- Access → RO
- Default Value → admin~1.dat

(c) AdminObjectDefragFilename

- Description → Name of the file used for defragmentation of the admin file
- Type → String
- Access → RO

- Default Value → admin-2.dat

(d) Path

- Description → Root path for this naming manager
- Type → String
- Access → RW
- Default Value → .

(e) DefragmentationLowerThreshold

- Description → Minimum number of deleted entries for triggering auto-defragmentation of AdminObjectManager
- Type → int
- Access → RW
- Default Value → 10

(f) DefragmentationUpperThreshold

- Description → Maximum number of deleted entries after which auto-defragmentation of AdminObjectManager is guaranteed
- Type → int
- Access → RW
- Default Value → 15

(g) 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

Connection Manager

1) Fiorano.socketAcceptors.port1:ServiceType=ConnectionManager,Name=ConnectionManager

Attributes

(a) NumberOfClientConnections

- Description → Current Number of connections created to this connection Manager
- Type → int
- Access → RO
- Default Value → 0

Operations

(b) 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 i.e PTP, PubSub etc

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

Attributes

(a) 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

(b) CFNameAppender

- Description → suffix for the Name of ConnectionFactory created for ConnectionManager.
- Type → String
- Access → RW
- Default Value →

(c) ReaderCacheDisabled

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

- Type → boolean
- Access → RW
- Default Value → false

(d) TCPWindowSize

- Description → Used TCP window size in three way handshaking process for connection creation.
- Type → long
- Access → RW
- Default Value → 133120

(e) 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

(f) MagicTimeout

- Description → Time set as a socket Timeout for created socket. If any request does'nt arrive on the socket within this interval then socket cleanp is done.
- Type → int
- Access → RW
- Default Value → 60000

(g) Port

- Description → Port used for binding the socket on server statup
- Type → int
- Access → RW
- Default Value → 1856

(g) 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, LPC
- Type → String
- Access → RW
- Default Value → TCP

(h) UseNagle

- Description → Boolean indication whether Nagel Algo is used in creating the socket or not
- Type → boolean
- Access → RW
- Default Value → false

(h) MonitoringRequest

- Description → Get the monitoring request ID in validation of exchanged communication versions in connection establishment.
- Type → int
- Access → RW

- Default Value → 13

(i) MonitoringResponse

- Description → Get the monitoring request response in exchange of communication versions in connection establishment
- Type → String
- Access → RW
- Default Value →

(j) 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

(k) MaxSocketConnections

- Description → maximum number of socket connections that can be created.
- Type → int
- Access → RW
- Default Value → 500

(l) 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

(m) AdminConnection

- Description → Serving the client requests check whether this connection is a adminConnection or a Normal Connection
- Type → boolean
- Access → RW

- Default Value → false

(n) Path

- Description → Root directory in which this connection manager searches for digital signatures for handling secure connections
- Type → String
- Access → RW
- Default Value → certs

(o) 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
- Default Value →

(p) HandShakingDisabled

- Description → Boolean representing whether handshake is disabled on connection creation or not
- Type → boolean
- Access → RW
- Default Value → false

(q) 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`

Jmx

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

1)

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

Attributes:

(a) RMIServerPort

- *Description:* Port on which Mx4J RMIConnector will bind.
- *Type:* int
- *Access:* RW
- *Default Value:* 1858

2)

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

Attributes:

(a) SecurityProtocol

- *Description:* Secure protocol used in case Server to which this CS will connect is running on secure protocol. Eg. PHAOS_SSL,SUN_SSL,NO_SECURITY
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* NO_SECURITY

(b) Protocol

- *Description:* Transport protocol used for making connection to JMS Server. Default is LPC, other values can be TCP,HTTP
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* LPC

(c) SecurityManagerClass

- *Description:* Security manager class which provides an implementation of IFMQSecurityManager
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* NO_SECURITY

(d) 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

(e) ServerPort

- *Description:* Port of JMS Server to which this ConnectorServer connects
- *Type:* int
- *Access:* RW
- *Default Value:* 1856

(f) 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

(g) Username

- *Description:* User name used for making connection to JMS server.
- *Type:* java.lang.String
- *Access:* RW

- *Default Value:* admin

(h) Password

- *Description:* User name used for making connection to JMS server.
- *Type:* java.lang.String
- *Access:* WO
- *Default Value:* null

(i) 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

(j) 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

(k) NotifQueueName

- *Description:* Notification Queue name on which Connector Server will send notification
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* JMX_CONNECT_QUEUE

(l) 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

Etc

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

3)

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

Attributes:

(a) OverloadTime

- *Description:* Time at which overload was detected
- *Type:* long
- *Access:* RO
- *Default Value:* -1

(b) ThreadsAtOverloadInstance

- *Description:* Number of threads at which system panicked last time.
- *Type:* int
- *Access:* RO
- *Default Value:* -1

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

Attributes:

(a) MinimumJobWorkers

- *Description:* Minimum number of job workers always present in the system.
- *Type:* int
- *Access:* RW
- *Default Value:* 4

(b) MaximuJobWorkers

- *Description:* Maximum number of job workers that can be present at any instance.
- *Type:* int
- *Access:* RW
- *Default Value:* 40

(c) JobsPerWorker

- *Description:* Number of jobs used per worker
- *Type:* int
- *Access:* RO
- *Default Value:* 4

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

Attributes:

(a) OverloadTime

- *Description:* Time at which overload was detected
- *Type:* long
- *Access:* RO
- *Default Value:* -1

(b) ThreadsAtOverloadInstance

- *Description:* Number of threads at which system panicked last time.
- *Type:* int
- *Access:* RO
- *Default Value:* -1

6)

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

Attributes:

(a) MinimumJobWorkers

- *Description:* Minimum number of job workers always present in the system.
- *Type:* int
- *Access:* RW
- *Default Value:* 4

(b) MaximuJobWorkers

- *Description:* Maximum number of job workers that can be present at any instance.
- *Type:* int
- *Access:* RW
- *Default Value:* 40

(c) JobsPerWorker

- *Description:* Number of jobs used per worker
- *Type:* int
- *Access:* RO
- *Default Value:* 4

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

Attributes:

(a) OverloadTime

- *Description:* Time at which overload was detected
- *Type:* long
- *Access:* RO
- *Default Value:* -1

(b) ThreadsAtOverloadInstance

- *Description:* Number of threads at which system panicked last time.
- *Type:* int
- *Access:* RO

- *Default Value:* -1

**8) Fiorano.etc.jobManagers:ServiceType=JobManager,Impl=Impl2,Name=PTP
ReadJobManager,type=config**

Attributes:

(a) MinimumJobWorkers

- *Description:* Minimum number of job workers always present in the system.
- *Type:* int
- *Access:* RW
- *Default Value:* 4

(b) MaximumJobWorkers

- *Description:* Maximum number of job workers that can be present at any instance.
- *Type:* int
- *Access:* RW
- *Default Value:* 40

(c) JobsPerWorker

- *Description:* Number of jobs used per worker
- *Type:* int
- *Access:* RO
- *Default Value:* 4

**9) Fiorano.etc.jobManagers:ServiceType=JobManager,Impl=Impl2,Name=Top
icWriteJobManager**

Attributes:

(a) OverloadTime

- *Description:* Time at which overload was detected
- *Type:* long
- *Access:* RO
- *Default Value:* -1

(b) ThreadsAtOverloadInstance

- *Description:* Number of threads at which system panicked last time.
- *Type:* int
- *Access:* RO
- *Default Value:* -1

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

Attributes:

(a) MinimumJobWorkers

- *Description:* Minimum number of job workers always present in the system.
- *Type:* int
- *Access:* RW
- *Default Value:* 4

(b) MaximumJobWorkers

- *Description:* Maximum number of job workers that can be present at any instance.
- *Type:* int
- *Access:* RW
- *Default Value:* 40

(c) JobsPerWorker

- *Description:* Number of jobs used per worker
- *Type:* int
- *Access:* RO
- *Default Value:* 4

11) Fiorano.etc.runtimeObjectManagers:ServiceType=ObjectManager,Name=gmsObjectManager

Operations:

(a) showKeys(type)

- *Description:* Returns the bindObjectNames for the specified type.
- *Return Type:* java.util.Hashtable. description="Keys are itemnames with values being objectNames"
- *Parameters:* name="type" type="int" description="type of Object"

(b) showAllKeys

- *Description:* Returns the bindObjectNames for all types
- *Return Type:* java.util.Hashtable. description="Keys are types of Objects with values being list of objectNames"
- *Parameters:* no parameters

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

Attributes:

(a) MaxHashCodeValidationAttempts

- *Description:* Specifies the maximum number of the hashCode revalidation attempts in Object creation.
- *Type:* int
- *Access:* RO
- *Default Value:* 16

(b) HashcodeReuseAlgoUsed

- *Description:* Specifies whether hashcode reuse algorithm is used
- *Type:* boolean
- *Access:* RW
- *Default Value:* yes

(c) MaxObjectTypes

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

- *Type:* int
- *Access:* RO
- *Default Value:* 14

13) Fiorano.etc.runtimeObjectManagers:ServiceType=ObjectManager,Name=ObjectManager

Operations:

(a) showKeys(type)

- *Description:* Returns the bindObjectNames for the specified type.
- *Return Type:* java.util.Hashtable. description="Keys are item numbers with values being objectNames"
- *Parameters:* name="type" type="int" description="type of Object"

(b) showAllKeys

- *Description:* Returns the bindObjectNames for all types
- *Return Type:* java.util.Hashtable. description="Keys are types of Objects with values being list of objectNames"
- *Parameters:* no parameters

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

Attributes:

(a) MaxHashCodeValidationAttempts

- *Description:* Specifies the maximum number of the hashCode revalidation attempts in Object creation.
- *Type:* int
- *Access:* RO
- *Default Value:* 16

(b) HashcodeReuseAlgoUsed

- *Description:* Specifies whether hashcode reuse algorithm is used
- *Type:* boolean
- *Access:* RW
- *Default Value:* yes

(c) MaxObjectTypes

- *Description:* Maximum number of object types that can be stored
- *Type:* int
- *Access:* RO
- *Default Value:* 14

15) Fiorano.etc:ServiceType=ExNamingManager,Name=ExNamingManager

Operations:

(a) showKeys

- *Description:* Returns the bindObjectNames for the specified type.
- *Return Type:* java.util.Vector. description="Keys are item numbers with values being JMSMetaData"
- *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

16) Fiorano.etc:ServiceType=AdminService,Name=AdminService

Attributes:

(a) NoOfActiveClientConnections

- *Description:* Specifies the number of active client connections to the server.
- *Type:* int

- *Access:* RO
- *Default Value:* depends on connections.

Operations:

(a) getUser

- *Description:* Gets user with the specified user name.
- *Return Type:* java.security.Principal
- *Parameters:* name="username" type="java.lang.String" description="UserName"

(b) getGroup

- *Description:* Gets group with the specified group name.
- *Return Type:* java.security.acl.Group
- *Parameters:* name="name" type="java.lang.String" description="UserName"

(c) getUserNames

- *Description:* Gets the enumeration of usernames.
- *Return Type:* java.util.Enumeration description="String representation of user names"
- *Parameters:* no parameters

(d) getGroupNames

- *Description:* Gets the enumeration of group names.
- *Return Type:* java.util.Enumeration description="String representation of group names"
- *Parameters:* no parameters

(e) getAclNames

- *Description:* Returns the Enumeration of acl names.
- *Return Type:* java.util.Enumeration description="String representation of acl names"
- *Parameters:* no parameters

(f) 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"

(g) 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"

(h) getNumberOfDeliverableMessages

- *Description:* Gets the Number of DeliverableMessages to the queue
- *Return Type:* long
- *Parameters:* name="name" type="java.lang.String" description="queue Name"

(i) 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"

(j) 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"

(k) getPTPClientIDs

- *Description:* Gets the enumeration of PTP Client IDs
- *Return Type:* java.util.Enumeration description="String representation of PTP ClientIDs"
- *Parameters:* no parameters

(l) getPubSubClientIDs

- *Description:* Gets the enumeration of PubSub Client IDs
- *Return Type:* java.util.Enumeration description="String representation of PubSub ClientIDs"
- *Parameters:* no parameters

(m) getSubscriptionTopicName

- *Description:* the topic name on which the durable subscriber
identified by the pair [clientID, subscriberID] was 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"

(n) getNumberOfUndeletedMessages

- *Description:* Gets the number of undeleted messages in the queue.
- *Return Type:* long
- *Parameters:* name="name" type="java.lang.String" description="queue Name"

(o) getNamingManagerImpl

- *Description:* Gets the implementation class of Naming Services at server.
- *Return Type:* java.lang.String
- *Parameters:* no parameters

(p) 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"

(q) 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

(r) getLevelForComponent

- *Description:* Gets the log level of the passed component.
- *Return Type:* java.util.Enumeration description="String representation of ClientIDs"
- *Parameters:* name="name" type="java.lang.String" description="queue Name"

(s) 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.

(u) isDestinationRegistered

- *Description:* Checks if the snooper is registered for the specified destination
- *Return Type:* boolean
- *Parameters:* name="destinationName" type="String" description="Destination Name"

(v) 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

(w) 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

(x) getPreferredServer

- *Description:* Gets PreferredServer MetaData for cluster
- *Return Type:* fiorano.jms.md.ServerMetaData
- *Parameters:* no parameters

(y) getDefaultSnooperStatusOnDestinations

- *Description:* get Snooping Status of destination domain based on type
- *Return Type:* boolean
- *Parameters:* name="destinationType" type="byte" description="Destination Type"
- *LegalValues:*
 - 0 = Topics
 - 1 = Queues

(z) 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"

(aa) 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"

(bb) 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

(cc) listAdminConnectionFactories

- *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

(dd) listCommonConnectionFactories

- *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

(ee) 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"

(ff) 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"

(gg) printServerInfo

- *Description:* Prints the complete Server Info
- *Return Type:* java.lang.String

- *Parameters:* no parameters

(hh) 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"

(ii) 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

(jj) createGroup

- *Description:* Creates group with the specified name
- *Return Type:* java.security.acl.Group
- *Parameters:* name="name" type="java.lang.String" description="GroupName"

(kk) createUser

- *Description:* Creates user with the specified 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"

(ll) deleteUser

- *Description:* Deletes the user if underlying realm implementation supports deletion.
- *Return Type:* boolean
- *Parameters:* name="name" type="java.lang.String" description="UserName"

(mm) deleteGroup

- *Description:* Deletes the group if underlying realm implementation supports deletion.
- *Return Type:* boolean
- *Parameters:* name="name" type="java.lang.String" description="GroupName"

(nn) 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="passwd" type="java.lang.String" description="Password"

(oo) authenticateUser

- *Description:* Authenticates the user
- *Return Type:* Boolean
- *Parameters:*
 1. name="username" type="java.lang.String" description="UserName"
 2. name="passwd" type="java.lang.String" description="Password"

(pp) elements

- *Description:* Returns the elements based on the passed MetaData type.
- *Return Type:* java.util.Enumeration description="MetaDatas dependeing 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

(qq) 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"

(rr) 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"

(ss) 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"

(tt) 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"

(uu) currentUsers

- *Description:* Gets the list of all logged in users.
- *Return Type:* java.util.Enumeration description="Contains all the logged in user names"
- *Parameters:* No parameters

(vv) 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"

(ww) 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"

(xx) 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"

(yy) registerMessageSnooperForAll

- *Description:* Registers the message snooper for all destinations.
- *Return Type:* No return value
- *Parameters:* No parameters

(zz) un registerMessageSnooperForAll

- *Description:* Unregisters message snooper for all destinations.
- *Return Type:* No return value
- *Parameters:* No parameters

(aaa) registerMessageSnooperForDestination

- *Description:* Registers message snooper for a particular destination
- *Return Type:* No return value
- *Parameters:* name="destinationName" type="String" description="Destination Name"

(bbb) registerMessageSnooperForDestination

- *Description:* Unregisters message snooper for a particular destination
- *Return Type:* No return value
- *Parameters:* name="destinationName" type="String" description="Destination Name"

(ccc) startSystemEvents

- *Description:* Starts the system events
- *Return Type:* No return value

- *Parameters:* No parameters

(ddd) stopSystemEvents

- *Description:* Gets the list of all logged in users.
- *Return Type:* No return value
- *Parameters:* No parameters

(eee) addMonitor

- *Description:* Adds an event for monitoring
- *Return Type:* java.util.Enumeration description="Contains all the logged in user names"
- *Parameters:*
 1. name="type" type="int" description="Monitor Type"
 2. name="timeout" type="long" description="specified timeout"
- *LegalValues:*
 1. *For type*
 - 1024 = MemoryEvents
 - 2048 = ThreadEvents
 - 4096 = PubsubEvents
 - 8192 = PtpEvents

(fff) removeMonitor

- *Description:* Adds an event for monitoring
- *Return Type:* java.util.Enumeration description="Contains all the logged in user names"
- *Parameters:*
 - name="type" type="int" description="Monitor Type"
- *LegalValues:*
 1. *For type*
 - 1024 = MemoryEvents
 - 2048 = ThreadEvents

4096 = PubsubEvents

8192 = PtpEvents

(ggg) saveDispatcherConfigurations

- *Description:* Saves the configurations of dispatcher to a file.
- *Return Type:* No return value
- *Parameters:* No parameters

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

Attributes:

(a) LogDir

- *Description:* Base Directory where logs will be stored.
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* ..\profiles\FioranoMQ\run\logs.

(b) Encoding

- *Description:* Encoding scheme used by the Loggers to log messages.
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* UTF-8

(c) Level

- *Description:* Log level that is used by newly constructed Handler objects.
- *Type:* int
- *Access:* RW
- *Default Value:* 2

(d) FileSizeLimit

- *Description:* Maximum size of each log file used by FileHandler. 0 means infinite.
- *Type:* int
- *Access:* RW
- *Default Value:* 0

(e) FileCount

- *Description:* Maximum number of files that can be used by FileHandler.
- *Type:* int
- *Access:* RW
- *Default Value:* 1

(f) AppendToFile

- *Description:* Specifies the append mode to filehandler.
- *Type:* boolean
- *Access:* RW
- *Default Value:* yes

(g) Formatter

- *Description:* Specifies the formatter for logs
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* *fiorano.jms.log2.def.DefaultFormatter*

18) Fiorano.etc:ServiceType=MemoryManager,Name=MemoryManager,type=config

Attributes:

(a) FreeMemory

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

- *Access:* RO
- *Default Value:* No default value

(b) UsedMemory

- *Description:* Used memory(bytes) available to JVM
- *Type:* long
- *Access:* RO
- *Default Value:* No default value

(c) MaxMemory

- *Description:* Maximum memory(bytes) available to JVM
- *Type:* int
- *Access:* RO
- *Default Value:* depends on connections.

Operations:

(a) gc

- *Description:* Does garbage collection of unused objects in JVM.
- *Return Type:* No return type
- *Parameters:* No parameters

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

Attributes:

(a) 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

(b) Password

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

- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* No default value

(c) Username

- *Description:* User name used for connecting to RDBMS server.
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* sa

(d) JdbcDriver

- *Description:* JDBC Driver used to connect to RDBMS data storage
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* org.hsqldb.jdbcDriver

(e) MaxConnections

- *Description:* Allowed maximum number of connections that would be created.
- *Type:* int
- *Access:* RW
- *Default Value:* 200

(f) DefaultConnections

- *Description:* Number of connections created while server startup.
- *Type:* int
- *Access:* RW
- *Default Value:* 1

(g) ConnectionTimeoutInterval

- *Description:* Connection timeout interval in milli seconds
- *Type:* int
- *Access:* RW

- *Default Value:* 10000

(h) ReconnectTimeInterval

- *Description:* Reconnection time interval in milli seconds.
- *Type:* int
- *Access:* RW
- *Default Value:* 10000

(i) WaitTime

- *Description:* Wait time if the no additional connections are available. 0 means infinite
- *Type:* int
- *Access:* RW
- *Default Value:* 0

(j) EnableRdbms

- *Description:* Enables or disable db manager for using rdbms server. This must be set for using rdbms server
- *Type:* boolean
- *Access:* RW
- *Default Value:* no

(k) EnableReconnect

- *Description:* Boolean used to specify whether reconnection should be done or not.
- *Type:* boolean
- *Access:* RW
- *Default Value:* yes

(l) 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

(m) DbConnectivityQuery

- *Description:* Query that must be executed to check health of the connection.
- *Type:* java.lang.String
- *Access:* RW
- *Default Value:* select * from tab

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

Attributes:

(a) DelayBetweenAttempts

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

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

Attributes:

(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

22) Fiorano.etc:ServiceType=PingManager,Name=PingManager,type=config

Attributes:

(a) PingerTimeout

- *Description:* Ping time out interval in milli seconds.
- *Type:* long
- *Access:* RW
- *Default Value:* 60000

23) Fiorano.etc:ServiceType=TimerService,Name=TimerService,type=config

Attributes:

(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

24) Fiorano.etc:ServiceType=RouteManager,Name=RouteManager,type=config

Attributes:

(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) UseConnectionSharing

- *Description:* Specifies whether connection sharing by routes is switched on or not
- *Type:* boolean
- *Access:* RO
- *Default Value:* yes

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

Attributes:

(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 behaviour 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 doesn't 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

26) Fiorano.etc:ServiceType=MemoryManager,Name=MemoryManager,type=config

Operations:

(a) isServerLowOnMemory

- *Description:* Check whether the used memory of the server has exceeded, the allowed threshold of the total memory available.
- *Type:* boolean
- *Access:* RW
- *Default Value:* No default value

(a) gc

- *Description:* Does garbage collection of unused objects in JVM.
- *Return Type:* No return type
- *Parameters:* No parameters

Security

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

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

Attributes:

(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: #*

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

Attributes:

(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*

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

Attributes:

(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: #*

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

Attributes:

(a) MaxAcePerAcl

- *Description: Maximum number of Access control entries per ACL.*
- *Type: int*
- *Access: RO*
- *Default Value: 100*

Fiorano.security:ServiceType=RealmManager,Name=SecuritySubSystem

Operations:

- (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"*

(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) boolean changePassword(String usrName, String newPasswd)

- *Description:* Change the password of a user
- *Return Type:* boolean
- *Parameters:*
 - *name="UserName" type="String"*
 - *name="NewPassword" type="String"*

(o) boolean changePassword(String usrName, String newPasswd,
boolean encrypt)

- *Description:* Change the password of a user
- *Return Type:* boolean
- *Parameters:*
 - *name="UserName" type="String"*
 - *name="NewPassword" type="String"*

- *name="Encrypt" type="boolean" description="Whether to encrypt password"*

MQ

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

1. Fiorano.mq.connection-consumer.FileDBManager:ServiceType=FileDBManager,

Name=FileDBManager5,type=config

Attributes:

(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: #*

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

Attributes:

(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: #*

3.

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

Attributes:

(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: #*

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

Attributes:

(a) InMemoryBufferSize

- *Description: Specifies the current message buffer size in bytes*
- *Type: int*
- *Access: RO*
- *Default Value: 0*

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

Attributes:

(a) MaxBufferSize

- *Description: Specifies maximum buffer size for in memory message caching*
- *Type: int*
- *Access: RW*
- *Default Value: 524288*

6. 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.

1. listSubscribers:

This will return the list of subscribers created on that particular topic.

The figure shows 'SubscriberName' which is its MBeanName, 'ConnectionClientID' which is the connection ID of the subscriber set from the client and 'ConnectionHashCode' is its owning connection hashcode. These two parameters are required for identifying the connection and 'IsDurableSubscriber' says whether this is a durable subscriber or not.

2. listPublishers:

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

Attributes:

(a) NumberOfActiveConsumers

- *Description: Number of active consumers on this destination*
- *Type: int*
- *Access: RO*

(b) NumberOfActiveProducers

- *Description: Number of active producers on this destination*
- *Type: int*
- *Access: RO*

(c) NumberOfPassiveDurableConsumers

- *Description: Number of passive durable consumers on this destination*
- *Type: int*
- *Access: RO*

OPERATIONS :

(a) IExpiryMessageListener getRegisteredExpiryListener()

- *Description: Get the all RegisteredListeners for Destination*
- *Return Type: fiorano.jms.services.msg.IExpiryMessageListener*

(b) boolean isSnooperEnabled()

- *Description: Finds whether Snooper is enabled for this Topic*
- *Return Type: boolean*

(c) 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".

(d) void enableSnooper(String enableSnooper)

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

- *Parameters:*
 - *name="enableSnooper" type="String"*

(e) Vector listNonDurableSubscribers()

- *Description:* Gets all non-durable subscribers for this Topic
- *Return Type:* java.util.Vector

Each element contains single string of format
"FMQ__CONSUMER__<Hashcode>".

For example if Hashcode associated with consumer object is 32, then the corresponding String would be "FMQ__CONSUMER__32".

(f) String getNumberOfMessagesInBound()

- *Description:* Returns the number of messages pushed in the topic
- *Return Type:* java.lang.String

(g) String getRateOfMessagesInBound()

- *Description:* Returns the rate at which messages are pushed in the topic
- *Return Type:* java.lang.String

(h) 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)

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

Attributes:

(a) PurgeLevelIndex

- *Description:* Number of persistent messages after which purging is to be done.
- *Type:* int
- *Access:* RW
- *Default Value:* 100

(b) MinPurgeDifference

- *Description: Minimum Number of persistent messages after which purging can be done.*
- *Type: int*
- *Access: RW*
- *Default Value: 50*

(c) MaxInQueueBufferSize

- *Description: Maximum Inqueue Buffer Size (in bytes)*
- *Type: long*
- *Access: RW*
- *Default Value: 524288*

(d) PublisherSlowdownUnit

- *Description: Milli Sec to wait before retrying to submit Publish call.*
- *Type: int*
- *Access: RW*
- *Default Value: 16*

(e) MaxPublisherSlowdownAttempts

- *Description: Max number of attempts used for Publisher slow down algo*
- *Type: int*
- *Access: RW*
- *Default Value: 64*

(f) UsePublisherSlowdownAlgo

- *Description: Boolean determining whether Publisher slow down algo should be used or not.*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(g) MinDemuxWaitTime

- *Description: Minimum amount of wait time before Demux Job is added*
- *Type: int*
- *Access: RW*
- *Default Value: 1*

(h) MaxDemuxWaitTime

- *Description: Maximum amount of wait time before Demux Job is added*
- *Type: int*
- *Access: RW*
- *Default Value: 128*

(i) AllowDeletionOfSubtopics

- *Description: Boolean determining if deletion of Subtopics is allowed*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(j) NeverDropNPMessages

- *Description: Boolean determining whether non-persistent messages can be lost or not*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(k) DemuxWhilePublishing

- *Description: Boolean determining if message demuxing should be done in publisher thread or not*
- *Type: boolean*
- *Access: RW*
- *Default Value: true*

(l) EnablePerformanceTuningMode

- *Description: Boolean determining if performance tuning is enabled or not*
- *Type: boolean*
- *Access: RW*
- *Default Value: true*

(m) DemuxJobYieldCounter

- *Description: Counter of Demux job Yield*
- *Type: int*
- *Access: RW*
- *Default Value: 1000*

(n) AddJobYieldCounter

- *Description: Counter of Add job yield*
- *Type: int*
- *Access: RW*
- *Default Value: 1000*

(o) MessagePublishTimeout

- *Description: Timeout time for message Publishing*
- *Type: int*
- *Access: RW*
- *Default Value: 120000*

(p) EnableSnooper

- *Description: specifies whether Snooper Service is enabled on this topic*
- *Type: java.lang.String*
- *Access: RW*
- *Default Value: "DEFAULT"*

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

Operations:

(a) boolean getEnableSnooperOnAllTopics()

- *Description:* get SnoopingStatus for all Topics
- *Return Type:* boolean

(b) void setEnableSnooperOnAllTopics(boolean enableSnooper)

- *Description:* Set SnoopingStatus for all Topics
- *Parameters:*
 - *name="enableSnooper" type="boolean"*

(c) Vector listClientIDs()

- *Description:* Gets a vector of all the clientIDs
- *Return Type:* java.util.Vector

Each element will have String representation of clientID.

(d) 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"*

(e) 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"*

(f) 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"*

(g) 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"*

(h) void createTopic(TopicMetaData metaData)

- *Description:* Creates Topic using given meta data info
- *Parameters:*
 - *name="metaData" type="fiorano.jms.md.TopicMetaData"*

(i) 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"*

(j) void createTopicConnectionFactory(
TopicConnectionFactoryMetaData metaData)

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

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

(k) 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"*

(l) 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"*

(m) void deleteTopicConnectionFactory(String tcf)

- *Description:* Deletes a topic connection factory
- *Parameters:*
 - *description = "TCFName" name="name" type="String"*

(n) 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"*

(o) void deleteTopic(String topicName)

- *Description:* Delete the given topic
- *Parameters:*
 - *name="topicName" type="String"*

(p) 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.

(q) 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.

(r) 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.

(s) 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"*

(t) void createXATopicConnectionFactory(String name, String url)

- *Description:* Operation for XATCF creation
- *Parameters:*
 - *description = "TCFName" name="name" type="String"*
 - *description = "lookupURL" name="url" type="String"*

(u) void createXATopicConnectionFactory(XATopicConnectionFactoryMetaData metaData)

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

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

(v) void deleteXATopicConnectionFactory(String name)

- *Description:* Delete the given xaTopic connection factory
- *Parameters:*
 - *name="tcfName" type="String"*

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

Attributes:

(a) DupsOkBatchSize

- *Description:* Batch size for DUPS_OK Ack mode
- *Type:* int
- *Access:* RW
- *Default Value:* 20

(b) 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

(c) PublishWait

- *Description:* Wait time before RTL sends next publish call, in case of slow down.
- *Type:* int
- *Access:* RW
- *Default Value:* 5

(d) 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*

(e) EnablePublisherSlowdown

- *Description: Enable/Disable publisher slowdown when message is stored in disk after session buffer overflows due to slow subscriber*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(f) 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*

(g) DefaultStorageTypeForTopics

- *Description: Get the default storage types for Topics*
- *Type: java.lang.String*
- *Access: RW*
- *Default Value: file*

(h) StoreMessageToDisk

- *Description: Store message to disk when session buffer overflows due to slow subscriber*
- *Type: boolean*
- *Access: RW*
- *Default Value: true*

(i) EnableSnooperOnAllTopics

- *Description: specifies whether Snooper Service is enabled on all topics*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(j) 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*

(k) IsForceFullyKillIDSubscriber

- *Description: Allow forcefully killing of Durable Subscriber*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(l) MaxPersistentStoreSize

- *Description: maximum size of the persistent queue in disk.*
- *Type: long*
- *Access: RW*
- *Default Value: 1073741824*

(m) MaxMsgInOneRecv

- *Description: Maximum number of messages that can be received in one call*
- *Type: int*
- *Access: RW*
- *Default Value: 128*

(n) BasicAllowedSize

- *Description: Connection level upperlimit for message buffer size in bytes.*
- *Type: int*
- *Access: RW*
- *Default Value: 131072*

(o) UseOptimizedTCPReceive

- *Description: Use optimized TCP Receive is enabled. This algo was introduced in MQ 7.5*
- *Type: boolean*
- *Access: RW*
- *Default Value: true*

(p) EnableMessageMonitoring

- *Description: Enables the message monitoring and stores the data*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(q) 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_MESSAGEMONITOR*

(r) TimeDuration

- *Description: the time duration in 'secs' to monitor message flow*
- *Type: int*
- *Access: RW*
- *Default Value: 3600*

10.

**Fiorano.mq.ptp.databases.file.FileDBManager:ServiceType=FileDBManager
,Name=FileDBManager6,type=config**

Attributes:

(a) Path

- *Description: Path for Initialization of FileBased dataStorage*
- *Type: java.lang.String*
- *Access: RW*
- *Default Value: PTP*

(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: #*

11. 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.

1. listReceivers:

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

2. listSenders:

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

Attributes:

(a) NumberOfActiveConsumers

- *Description: Number of active consumers on this destination*
- *Type: int*
- *Access: RO*

(b) NumberOfActiveProducers

- *Description: Number of active producers on this destination*
- *Type: int*
- *Access: RO*

(c) NumberOfDeliverableMessages

- *Description: Gets the number of deliverable messages on this destination.*
- *Type: long*
- *Access: RO*

(d) NumberOfUndeletedMessages

- *Description: Gets the number of undeleted messages on this destination.*
- *Type: long*
- *Access: RO*

Operations:

(a) IExpiryMessageListener getRegisteredExpiryListener()

- *Description:* Get the all RegisteredListeners for Destination
 - *Return Type:* fiorano.jms.services.msg.IExpiryMessageListener
- (b) boolean isDMQEnabled()
- *Description:* Finds whether DMQ is enabled for this Queue.
 - *Return Type:* boolean
- (c) boolean isSnooperEnabled()
- *Description:* Finds whether Snooper is enabled for this Queue.
 - *Return Type:* boolean
- (d) void enableDMQ(String enableSnooper)
- *Description:* possible values are TRUE,FALSE,DEFAULT
 - *Parameters:*
 - *name="enableDMQ" type="String"*
- (e) void enableSnooper(String enableSnooper)
- *Description:* possible values are TRUE,FALSE,DEFAULT
 - *Parameters:*
 - *name="enableSnooper" type="String"*
- (f) String getNumberOfMessagesInBound()
- *Description:* Returns the number of messages pushed in the queue
 - *Return Type:* java.lang.String
- (g) String getRateOfMessagesInBound()
- *Description:* Returns the rate at which messages are pushed in the queue
 - *Return Type:* java.lang.String
- (h) String getNumberOfMessagesOutBound()
- *Description:* Returns the number of messages popped from the queue
 - *Return Type:* java.lang.String
- (i) String getRateOfMessagesOutBound()

- *Description:* Returns the rate at which messages are popped from the queue
- *Return Type:* java.lang.String

(j) 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)

(k) String countPendingMessages()

- *Description:* Returns the number of message present in the queue
- *Return Type:* java.lang.String

(l) void deleteExpiredMessages()

- *Description:* Delete all the expired messages.

(m) void purgeMessagesWithActiveClients()

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

(n) void purgeMessages(boolean forcefully)

- *Description:* Purge all the messages for this queue
- *Parameters:*
 - *name="forcefully" type="boolean"*

12.

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

Attributes:

(a) LoadBitSetOnStartup

- *Description:* Loads inMemory message index status BitSet on startup.
- *Type:* boolean
- *Access:* RW
- *Default Value:* false

(b) UseInMemStatusCache

- *Description: Status Cache for Messages.*
- *Type: boolean*
- *Access: RW*
- *Default Value: true*

(c) CleanupInterval

- *Description: Specifies the interval after which QueueCleaner utility cleans the messages from the Queue.*
- *Type: long*
- *Access: RW*
- *Default Value: 60000*

(d) IsDbCleanupEnabled

- *Description: specifies whether Queue Cleaner utility is enabled or not, Default this utility is disable.*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(e) EnableSnooper

- *Description: specifies whether Snooper Service is enabled on this queue*
- *Type: java.lang.String*
- *Access: RW*
- *Default Value: "DEFAULT"*

(f) EnableDMQ

- *Description: specifies whether DMQ Service is enabled on this queue*
- *Type: java.lang.String*
- *Access: RW*
- *Default Value: "DEFAULT"*

(g) StoreNPMessagesInDb

- *Description: Boolean determining if Non Persistent message are to be stored in Data storage*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(h) EnableGMSQueueExpose

- *Description: Boolean specifies whether RunTimeGMS Config MBean should be exposed or not*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(i) InMemoryBlockingInterval

- *Description: Blocking interval*
- *Type: long*
- *Access: RW*
- *Default Value: 10*

(j) PersistentInMemoryBufferSize

- *Description: Specifies the buffer size of the In-Memory Cache for PERSISTENT messages*
- *Type: long*
- *Access: RW*
- *Default Value: 524288*

(k) InMemoryBufferSize

- *Description: Specifies the buffer size of the In-Memory Cache for NONPERSISTENT messages*
- *Type: long*
- *Access: RW*
- *Default Value: 1048576*

(l) MaxPushAttempts

- *Description: Maximum number of attempts for pushing in in-memory buffer*
- *Type: int*
- *Access: RW*
- *Default Value: 64*

(m) WaitBetweenAttempts

- *Description: Wait time between attempts*
- *Type: long*
- *Access: RW*
- *Default Value: 16*

(n) QueueSpecific

- *Description: Are the values specific to queues or not*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

13.

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

Attributes:

(a) UnAkedQueueBufferSize

- *Description: Buffer size of receiver queue for unacked messages.*
- *Type: int*
- *Access: RW*
- *Default Value: 10485760*

(b) 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*

(c) 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*

(d) CleanupDmqAtStartup

- *Description: Enabling the cleanup of DeadMessageQueue at server startup.*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(e) EnableSnooperOnAllQueues

- *Description: specifies whether Snooper Service is enabled on all queues*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(f) EnableDMQOnAllQueues

- *Description: specifies whether DMQ Service is enabled on all queues*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(g) DefaultStorageTypeForQueues

- *Description: Get the default storage types for Queues*
- *Type: java.lang.String*
- *Access: RW*
- *Default Value: file*

(h) PrefetchCount

- *Description: Specifes 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*

(i) PrefetchThreshold

- *Description: PrefetchThreshold count used for single receive call*
- *Type: int*
- *Access: RW*
- *Default Value: 1*

(j) MaxPrefetchSize

- *Description: Specifies the maximum prefetched size of fetched messages in one receive call.*
- *Type: int*
- *Access: RW*
- *Default Value: 262144*

(k) 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*

(l) DMQExpiryTime

- *Description: Time in milliseconds after which any stored message in Dead Message Queue is deleted.*
- *Type: long*
- *Access: RW*
- *Default Value: 0*

(m) EnableNotificationOnDeadMessage

- *Description: Enabling the AdminTopic Notification on DeadMessage.*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(n) CleanupInterval

- *Description: Specifies the interval after which QueueCleaner utility cleans the messages from the Queue.*
- *Type: long*
- *Access: RW*
- *Default Value: 60000*

(o) EnableMessageMonitoring

- *Description: Enables the message monitoring and stores the data*
- *Type: boolean*
- *Access: RW*
- *Default Value: false*

(p) 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*

(q) TimeDuration

- *Description: the time duration in 'secs' to monitor message flow*
- *Type: int*
- *Access: RW*
- *Default Value: 3600*

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

Operations:

(a) void createQueue(QueueMetaData metaData)

- *Description: Creates Queue*
- *Parameters:*
 - *name="metaData" type="fiorano.jms.md.QueueMetaData"*

(b) void createQueue(String adminObjectName, QueueMetaData metaData)

- *Description: Creates Queue*
- *Parameters:*

- *name="adminObjectName" type="java.lang.String"*
- *name="metaData" type="fiorano.jms.md.QueueMetaData"*

(c) 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"*

(d) void createQueueConnectionFactory(QueueConnectionFactoryMetaData
metaData)

- *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"*

(f) 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"*

(g) void createXAQueueConnectionFactory(String name, String url)

- *Description:* Operation for XAOCF creation
- *Parameters:*

- *description* = "QCFName" *name*="name" *type*="String"
- *description* = "lookupURL" *name*="url" *type*="String"

(h) void deleteQueue(String queueName)

- *Description*: Delete the given queue
- *Parameters*:
 - *name*="queueName" *type*="String"

(i) void deleteQueueConnectionFactory(String qcfName)

- *Description*: Deletes the given queue connection factory
- *Parameters*:
 - *name*="qcfName" *type*="String"

(j) void deleteXAQueueConnectionFactory(String name)

- *Description*: Deletes the given xaQueue connection factory
- *Parameters*:
 - *name*="qcfName" *type*="String"

(k) boolean getEnableDMQOnAllQueues()

- *Description*: get DMQStatus for all Queues
- *Return Type*: boolean

(l) boolean getEnableSnooperOnAllQueues()

- *Description*: get SnoopingStatus for all Queues
- *Return Type*: boolean

(m) 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.

(n) 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.

(o) 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.

(p) 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"*

(q) void setEnableDMQOnAllQueues(boolean enableSnooper)

- *Description:* Enable DMQ on all queues
- *Parameters:*
 - *name="enableDMQ" type="boolean"*

(r) void setEnableSnooperOnAllQueues(boolean enableSnooper)

- *Description:* Enable Snooper on all queues
- *Parameters:*
 - *name="enableSnooper" type="boolean"*