FioranoMQ

JMX API Guide

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FioranoMQ JMX API's

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.Loggers: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 specfic 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 specfic 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=config`

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,ty
pe=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=co
nfig
```

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 Subcriber"

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

5.2.1.7 getNumberOfDeliverableMessages

Description: Gets the Number of DeliverableMessages to the passed DurableSubcriber.

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 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

5.2.1.28 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

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 Connetion Factory"
5. name="Description" type="String" description="Desciption 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 Connetion 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 authunticateUser

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= "MetaDatas 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 listAdminConnectionFactories

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

Return Type: java.util.Hashtable

Parameters: No parameters

5.2.1.64 listAllConnectionFactories

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

5.2.1.71 disconnectClient

Description: Disconnects the client identified by the clientID.

Return Type: boolean, returns TRUE if client is successfully disconnected, FALSE otherwise.

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

5.2.1.72 disconnectClientWithToken

Description: Disconnects the client identified by the connectionToken.

Return Type: boolean, returns TRUE if client is successfully disconnected, FALSE otherwise.

Parameters: name="connToken" type="java.lang.Integer" description="connToken"

5.2.1.73 addMember

Description: Adds user to given group

Return Type: boolean

Parameters:

1. name="grpName" type="java.lang.String" description="Group Name"
2. name="userName" type="java.lang.String" description="User Name"

5.2.1.74 removeMember

Description: Removes user from the given group

Return Type: boolean

Parameters:

1. name="grpName" type="java.lang.String" description="Group Name"
2. name="userName" type="java.lang.String" description="User Name"

5.2.1.75 isGroupPresent

Description: Returns whether group is present in the server or not.

Return Type: boolean

Parameters: name="groupName" type="java.lang.String" description="Group name"

5.2.1.76 createUser

Description: Creates User with the specified Name and specified max connections

Return Type: java.security.Principal

Parameters:

1. name="username" type="java.lang.String" description="UserName"
2. name="passwd" type="java.lang.String" description="Password"
3. name="maxNoOfConnections" type="int" description="maximum number of connections"

5.2.1.77 setMaxNoOfConnections

Description: Change the max number of connections

Return Type: boolean

Parameters:

1. name="username" type="java.lang.String" description="UserName"
2. name="maxNoOfConnections" type="int" description="no of connection(s)"

5.2.1.78 getMaxNoOfConnections

Description: Gets the maximum number of connections

Return Type: Int

Parameters: No parameters

5.2.1.79 threadDump

Description: This api will dump all the threads stack trace to server log file.

Return Type: void

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 MQDefObjCreater

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

5.7.1 Attributes of MQDefObjCreater

(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"

Another method for adding a route: addRoute(HashMap route_properties)

Description: Adds a route with parameters given in HashMap.

Return Type: void

Key-names and value-types in HashMap:

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

- name="Lookup URL" value-type="String" description="Provider url to lookup the target CF"

- name="Source Destination" value-type="String" description="Source destination of this route (should be local)"

- name="Target CF" value-type="String" description="Target Connection Factory for this route"

- name="Target Destination" value-type="String" description="Target destination for this route (can be remote)"

- name="IsDurableSubscriber" value-type="String" description="true/false to indicate whether durable subscribers should be used or not"

- name="Durable Subscriber ID" value-type="String" description="Durable Subscriber ID that is used in case isDurSub is true"

- name="Client ID" value-type="String" description="Client ID that is used"

- name="JMS Selector" value-type="String" description="JMS Selector used for this route"

- name="IsJMSReplyToAsTarget" value-type="String" description="true/false indicating whether target destination should be set dynamically based on the incoming message's JMSReplyTo header property."

- name="EnableDMQOnRoute" value-type="String" description="true/false indicating whether DMQ is enabled on route or not"

- name="MessagePropertyForTargetCF" value-type="String" description="JMS message property used to set TargetCF, in case isJMSReplyToAsTarget is true and no Target CF is specified"

- name="TargetServer UserName" value-type="String" description="User name of target server for creating route."

- name="TargetServer Password" value-type="String" description="Password of target server for creating route."

- name="DMQExpiryTime" value-type="String" description="Expiration Time for messages in Dead Message queue"

- name="TargetServer Transport Protocol" value-type="String" description="Protocol of Target server . Only TCP and HTTP protocols are supported "

Example:

HashMap routeMap = new HashMap();

routeMap.put("routeGUID","R1");

routeMap.put("Lookup URL","http://localhost:1856");

routeMap.put("Source Destination","primaryQueue");

routeMap.put("Target CF","PrimaryQCF");

routeMap.put("Target Destination","secondaryQueue");

routeMap.put("TargetServer UserName","anonymous");

routeMap.put("TargetServer Password","anonymous");

routeMap.put("TargetServer Transport Protocol","TCP");

(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-commited 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 authunticateUser(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

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

IsForceFullyKillDSubscriber

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

RedeliveryTriesOnListenerException

Description: Parameter specifying number of redelivery tries when RuntimeException is thrown in a 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

DelayInMsgDeliveryOnListenerException

Description: Parameter specifying the delay in Message redelivery when RuntimeException is thrown in a 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: long

Access: RW

7.2.9 Operations of PubSub – TopicConnections

Fiorano.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 algo 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

IsForceFullyKillDSubscriber

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_MESSAGEMONITOR

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

LoadLVCIndicesAtLookup

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

FlushLVCDataAtStartup

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

Fiorano.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

bollean isStarted()

Description: Returns true if connection is started.

Type: Bollean

Access: RO

7.3.6 Operations of PTP – Queue Connections – FioranoSession

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

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: 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

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 stared"`

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

`Forano.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,Lin
k=<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,Lin
k=<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="fiorano.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,L
ink=<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,L
ink=<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 listActiveServersUrl()

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 serverUrl, 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 conenctions"
- Name="count" type="int" description="Maximum Client Connections alowed"

(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_18
56
```

(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