

Quick Guide of the Administrative Console from WebSphere Application Server for WebSphere MQ users

IBM Techdoc: 7018556

<http://www.ibm.com/support/docview.wss?uid=swg27018556>

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IBM WebSphere MQ Support

+++ Objective +++

The objective of this techdoc is to provide a quick guide of the sections of the Administrative Console from WebSphere Application Server which are relevant to WebSphere MQ users:

- Listener Ports
- JMS resources (Connection Factories, Destinations, Activation Specifications)
- MDBs and their mapping to Listener Port or Activation Specification
- Environment variables (MQ_INSTALL_ROOT for WebSphere Application Server V6)
- Trace enablement and specification of the trace string
- Specification for the MQ Native Libraries for Bindings Transport Type
- Enablement of new MQ V7 functions: Read Ahead, Asynchronous Put
- Additions in WAS V8: connection name list, advanced properties

The screen shots are taken from a WebSphere Application Server Administrative Console at V7.

Whenever relevant, specific screen shots from WebSphere Application Server V6 and V8.x and V9 will be shown.

+++ Update on 07-Mar-2018:

New section for the MQ Resource Adapter properties, such as:
reconnectionRetryInterval

+++ Update on 10-Aug-2016:

Including WAS V9.

+++ Update on 18-Nov-2011:

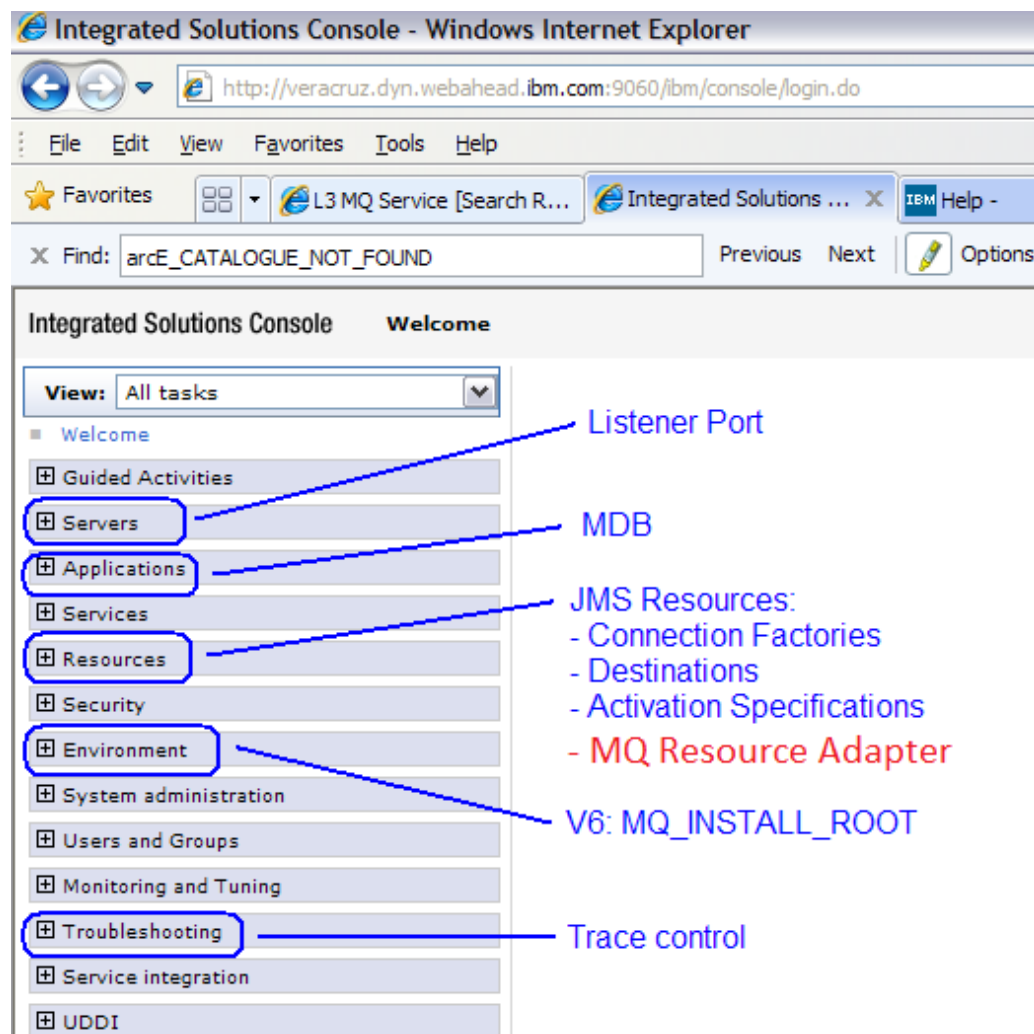
Including WAS V8.

+++++ High level view of the Console, regarding functions related to MQ
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This is the high level view of the WebSphere Application Server Administrative Console showing the menus that have objects related to MQ.

The default URL for the WebSphere Application Server Administrative Console is:

<http://hostname.domain.com:9060/ibm/console>



Servers:

Listener Ports: start, stop, status

Applications:

MDBs: start, stop, bindings to Listener Port or to Activation Specification

Resources:

JMS Resources:

Connection Factories

Destinations (Queues, Topics)

Activation Specifications

MQ Resource Adapter properties (such as reconnectionRetryInterval)

Environment:

WebSphere Application Server V6: MQ_INSTALL_ROOT

Troubleshooting:

Tracing: trace string, enable tracing, disable tracing.

+++++ Listener Ports
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A WebSphere Application Server Listener Port is not a JMS administrative object and thus, it is not stored in the JNDI directory service.
Rather, it is an object under the "server" of WebSphere Application Server.

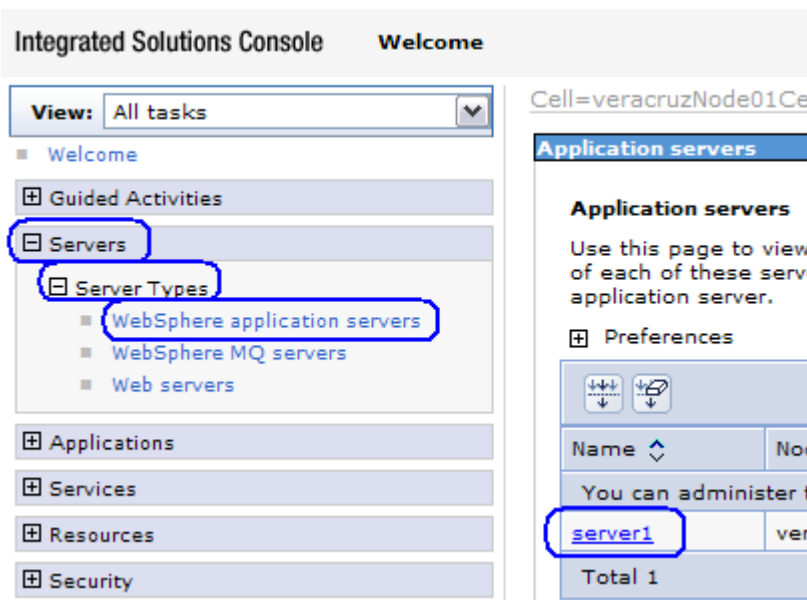
The short cut is:

Application servers > server1 > Message listener service > Listener Ports

The full procedure is described below.

From the left panel, select:

Servers > Server Types > WebSphere application servers



From the right panel, click on the appropriate server, in this case, "server1".

The Configuration tab will display the main information on the server:

Cell=veracruzNode01Cell, Profile=AppSrv01

Application servers ?

[Application servers](#) > **server1**

Use this page to configure an application server. An application server is a server that provides services required to run enterprise applications.

Runtime **Configuration**

General Properties

Name
server1

Node name
veracruzNode01

☐ Run in development mode

☒ Parallel start

Container Settings

- [Session management](#)
- ⊕ SIP Container Settings
- ⊕ Web Container Settings
- ⊕ Portlet Container

You need to scroll down to reach the section “Communications”

Communications

- ⊕ [Ports](#)
- ⊕ [Messaging](#)

Click on “Messaging”

Communications

- ⊕ [Ports](#)
- ⊖ Messaging
 - [Message listener service](#)

Click on “Message listener service”

In the “Message listener service”, click on: Listener Ports

Application servers

Application servers > server1 > Message listener service

Use this page to configure the message listener service. This service provides the message-driven bean (MDB) listening process, in which message-driven beans are deployed against listener ports that define the JMS destination to listen upon. These listener ports are defined within this service along with settings for its thread pool.

Configuration

Additional Properties

- [Listener Ports](#)
- [Thread Pool](#)
- [Custom properties](#)

Click on Listener Ports






Application servers

Application servers > server1 > Message listener service > Listener Ports

Use this page to configure listener ports upon which message-driven beans listen for messages. Each port specifies the J connection factory and JMS destination that a message-driven bean, deployed against that port, listens upon.

⊞ Preferences

Convert to activation specification New Delete Start Stop

Select	Name	Description	Connection factory JNDI name	Destination JNDI name	Status
You can administer the following resources:					
<input type="checkbox"/>	SampleMDBQueueLP		jms/SampleMDBConnectionFactory	jms/SampleMDBQueue	✖
<input type="checkbox"/>	SampleMDBTopicLP		jms/SampleMDBConnectionFactory	jms/SampleMDBTopic	✖
Total 2					

+++++ JMS resources (Connection Factories, Destinations, Activation Specifications) +++++

The JMS resources are:

- Connection Factories (Generic, Queue and Topic)
- Destinations (Queues, Topics)
- Activation Specifications

Notice that MQ is designated as the "WebSphere MQ messaging provider".

The "Default messaging provider" is NOT MQ, but rather, the System Integration Bus (SIB).

The screenshot displays the Integrated Solutions Console interface. On the left, a navigation tree shows the path: Resources > JMS > Connection factories. The main content area is titled "Connection factories" and shows the configuration for a specific resource. The scope is set to "Cell=veracruzNode01Cell, Profile=AppSrv01". The configuration includes a "Scope" section with a dropdown menu showing "Node=veracruzNode01, Server=server1". Below this, there is a "Preferences" section with a table of resources. The table has columns for "Select", "Name", "JNDI name", and "Provider". One resource is listed: "SampleMDBConnectionFactory" with JNDI name "jms/SampleMDBConnectionFactory" and provider "WebSphere MQ messaging provider". The provider name is highlighted with a red box. At the bottom, it says "Total 1".

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+++ JMS resources (JMS providers > MQ Resource Adapter properties)
+++++

New in WAS 8:

WebSphere Application Server V8 exposes the following WebSphere MQ connection properties that are used to configure the WebSphere MQ resource adapter that is used by the WebSphere MQ messaging provider. These properties affect the connection pool that is used by activation specifications:

- maxConnections
- connectionConcurrency
- reconnectionRetryCount
- reconnectionRetryInterval

https://www.ibm.com/support/knowledgecenter/SSEQTP_9.0.0/com.ibm.websphere.base.doc/ae/tmm_wmqra_propconfig.html

WebSphere Application Server traditional 9.0.0.x > Managing messaging with the IBM MQ messaging provider

Configuring properties for the IBM MQ resource adapter

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+ begin excerpt

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You can configure the IBM MQ resource adapter properties that affect the connection pool, which is used by IBM MQ messaging provider activation specifications.

About this task

There are properties that are used to configure the IBM MQ resource adapter used by the IBM MQ messaging provider:

- maxConnections: default 50
- connectionConcurrency: default 1

(Setting this property only affects WebSphere® Application Server 7 nodes.

The property has no effect for WebSphere Application Server Version 8 or later nodes.)

- reconnectionRetryCount: default 5
- reconnectionRetryInterval: default 300,000 milliseconds (it is 5 minutes!!)
- startupRetryCount
- startupRetryInterval

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These properties affect the connection pool, which is used by the IBM MQ messaging provider activation specifications. They do not affect the IBM MQ messaging provider queues, topics, or connection factories.

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Procedure

1. In the navigation pane, click Resources > JMS-> JMS providers to display a list of JMS providers in the content pane.
2. Optional: If you want to manage JMS resources that are defined at a different scope setting, change the Scope setting to the required level.
3. In the Providers column of the displayed list of JMS providers, click the name of the IBM MQ messaging provider that you want to work with.
4. In the content pane under Additional properties, click Resource adapter properties to view the configuration page for the properties.
5. Specify the required values for the properties.

+ end excerpt

Example:

JMS Resources > JMS providers

JMS providers

A JMS provider enables messaging based on the Java Message Service (JMS). It provides J2EE connection factories to create connections for JMS destinations.

Scope: **All scopes**

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, [see the scope settings help](#).

All scopes

Preferences

New Delete

Select	Name	Description	Scope
	Default messaging provider	Default messaging provider	Node=DESKTOP-2ROH22KNode01
	Default messaging provider	Default messaging provider	Cell=DESKTOP-2ROH22KNode01Cell
	Default messaging provider	Default messaging provider	Node=DESKTOP-2ROH22KNode01,Server=server1
	WebSphere MQ messaging provider	WebSphere MQ messaging provider	Cell=DESKTOP-2ROH22KNode01Cell
	WebSphere MQ messaging provider	WebSphere MQ messaging provider	Node=DESKTOP-2ROH22KNode01
	WebSphere MQ messaging provider	WebSphere MQ messaging provider	Node=DESKTOP-2ROH22KNode01,Server=server1

JMS Resources > JMS providers > WebSphere MQ messaging provider

JMS providers

[JMS providers](#) > WebSphere MQ messaging provider

A JMS provider enables messaging based on the Java Message Service (JMS). It provides J2EE connection factories to create connections for JMS destinations.

Configuration

General Properties

Scope

Node=DESKTOP-2ROH22KNode01,Server=server1

Name

WebSphere MQ messaging provider

Description

WebSphere MQ messaging provider

Additional Properties

- [Connection factories](#)
- [Queue connection factories](#)
- [Topic connection factories](#)
- [Queues](#)
- [Topics](#)
- [Activation specifications](#)
- [Resource adapter properties](#)

JMS Resources > JMS providers > WebSphere MQ messaging provider
> Resource Adapter properties

JMS providers

[JMS providers](#) > [WebSphere MQ messaging provider](#) > **Resource adapter properties**

These properties are used to configure the IBM MQ resource adapter used by the IBM MQ messaging provider. In most of these settings affect the behavior of IBM MQ messaging provider activation specifications.

Configuration

General Properties

Connection pool properties

Max connections

50

connections

Connection concurrency

1

Reconnection retry count

5

retries

Reconnection retry interval

300000

milliseconds

Additional Properties

■ [Custom properties](#)

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 +++ MDBs and their mapping to Listener Port or Activation Specification
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A Message Driven Bean (MDB) is part of a deployed application.
 They can be found under:

Applications > Application Types > WebSphere enterprise applications

The screenshot shows the Integrated Solutions Console interface. On the left, the navigation tree is expanded to 'Applications' > 'Application Types' > 'WebSphere enterprise applications'. The main panel displays the 'Enterprise Applications' page for the cell 'veracruzNode01Cell, Profile=AppSrv01'. It includes a table of installed applications with columns for 'Select', 'Name', and 'Application Status'. The application 'SampleMDBEJBEAR' is highlighted with a blue box, showing a green arrow icon in the status column, indicating it is running. Other applications listed include 'DefaultApplication', 'IBMTUC', and 'ivtApp', all with red 'X' icons indicating they are not running.

Select	Name	Application Status
<input type="checkbox"/>	DefaultApplication	✗
<input type="checkbox"/>	IBMTUC	✗
<input type="checkbox"/>	SampleMDBEJBEAR	➡
<input type="checkbox"/>	ivtApp	✗

Notice that the application needs to be shown with a status of running (green arrow) in order for the corresponding MDB to be running.

The MDB can be associated with a Listener Port or an Activation Specification. From the sample above, click on the application "SampleMDBEJBEAR".

Under the section "Enterprise Java Bean Properties", select: Message Driven Bean listener bindings

Enterprise Applications ?

[Enterprise Applications](#) > **SampleMDBEJBEAR**

Use this page to configure an enterprise application. Click the links to access pages for further configuring of the application or its modules.

Configuration Runtime

General Properties

* Name
SampleMDBEJBEAR

Application reference validation
Issue warnings ▼

Detail Properties

- [Target specific application status](#)
- [Startup behavior](#)
- [Application binaries](#)
- [Class loading and update detection](#)
- [Request dispatcher properties](#)

Modules

- [Manage Modules](#)

Enterprise Java Bean Properties

- [Default messaging provider references](#)
- [Application profiles](#)
- [Message Driven Bean listener bindings](#)

Database Profiles

- [SQL profiles and pureQuery bind files](#)

In this example, the binding is with a Listener Port

Enterprise Applications

Enterprise Applications > SampleMDBEJBEAR > Message Driven Bean listener bindings

Message Driven Bean listener bindings

Each message-driven enterprise bean in your application or module must be bound to a listener port name or to an activation specification JNDI name. When a message-driven enterprise bean is bound to an activation specification JNDI name you can also specify the destination JNDI name and authentication alias.

☒ Apply Multiple Mappings

Select	EJB module	EJB	URI	Messaging type	Listener Bindings
<input type="checkbox"/>	SampleMDBEJB	SampleMDB	SampleMDBEJB.jar,META-INF/ejb-jar.xml	javax.jms.MessageListener	<div><div><input checked="" type="radio"/> Listener port Name <input type="text" value="SampleMDBQueueLP"/></div><div><input type="radio"/> Activation Specification Target Resource JNDI Name <input type="text"/> Destination JNDI name <input type="text"/> ActivationSpec authentication alias <input type="text"/></div></div>

++++ Environment variables (MQ_INSTALL_ROOT for WebSphere Application Server V6)
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In WebSphere Application Server V6, the WebSphere Application Server environment variable MQ_INSTALL_ROOT is used to indicate the location of the MQ JMS jar files.

The default value of MQ_INSTALL_ROOT is:

`${WAS_INSTALL_ROOT}/lib/WMQ`

Where WAS_INSTALL_ROOT is:

AIX: `/usr/IBM/WebSphere/AppServer`

Others: `/opt/IBM/WebSphere/AppServer`

Windows: `C:\Program Files\IBM\WebSphere\AppServer`

The jar files are located in `${MQ_INSTALL_ROOT}/java/lib`

Thus, the full path for these MQ jar files is:

AIX: `/usr/IBM/WebSphere/AppServer/lib/WMQ/java/lib`

Others: `/opt/IBM/WebSphere/AppServer/lib/WMQ/java/lib`

Windows: `C:\Program Files\IBM\WebSphere\AppServer\lib\WMQ\java\lib`

In WebSphere Application Server V7, the variable MQ_INSTALL_ROOT is practically not used. For more details, consult the following techdoc:

<http://www.ibm.com/support/docview.wss?uid=swg27017881>

WebSphere MQ V5.3, V6 and V7 as JMS Provider for WebSphere Application Server V5, V6.0, V6.1 and V7

In WebSphere Application Server 6.0, the following variable is defined in terms of MQ_INSTALL_ROOT.

Do NOT modify directly this variable:

`MQJMS_LIB_ROOT = ${MQ_INSTALL_ROOT}/lib/WMQ`

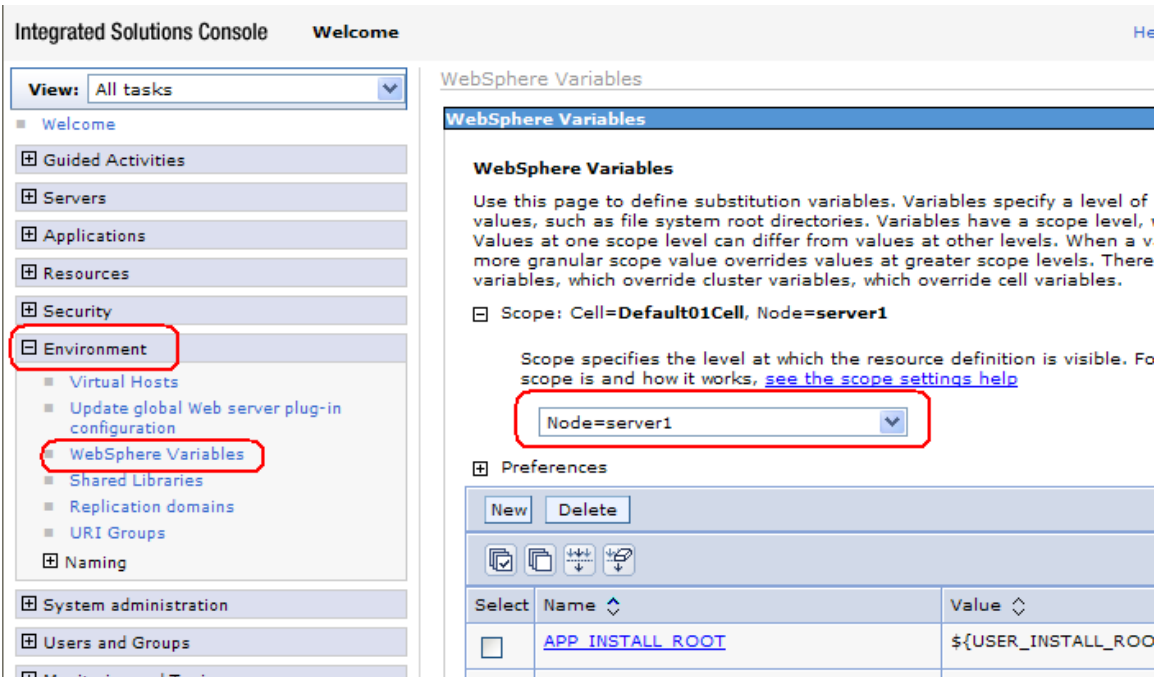
In WebSphere Application Server V6.1 the variable MQJMS_LIB_ROOT is NO longer used.

It is still shown in the WebSphere Application Server Administration Console, but its value is NOT used. Instead, the following is actually used:

`${MQ_INSTALL_ROOT}/lib/WMQ`

To find out the values for these variables, use the WebSphere Application Server administrative console:

Environment > WebSphere Variables
Ensure to select the scope to: Node=server1



You will need to scroll down or go to the next page in the long list of variables, until you find:

MQ_INSTALL_ROOT \${WAS_INSTALL_ROOT}/lib/WMQ

<input type="checkbox"/>	MICROSOFT_JDBC_DRIVER_PATH		Node=server1
<input type="checkbox"/>	MQ_INSTALL_ROOT	\${WAS_INSTALL_ROOT}/lib/WMQ	Node=server1
<input type="checkbox"/>	MSSQLSERVER_JDBC_DRIVER_PATH		Node=server1

+++++ Trace enablement and specification of the trace string +++++

The following technote has the details on how to enable the MQ JMS trace in WAS:

<http://www.ibm.com/support/docview.wss?uid=swg21199176>

Technote: 1199176

Enabling Java Message Service (JMS) trace for WebSphere Application Server

WAS V9.0 (all on one line):

=info:jmsApi=all:Messaging=all:com.ibm.mq.=all:JMSApi=all:com.ibm.ws.cdi.jms*=all

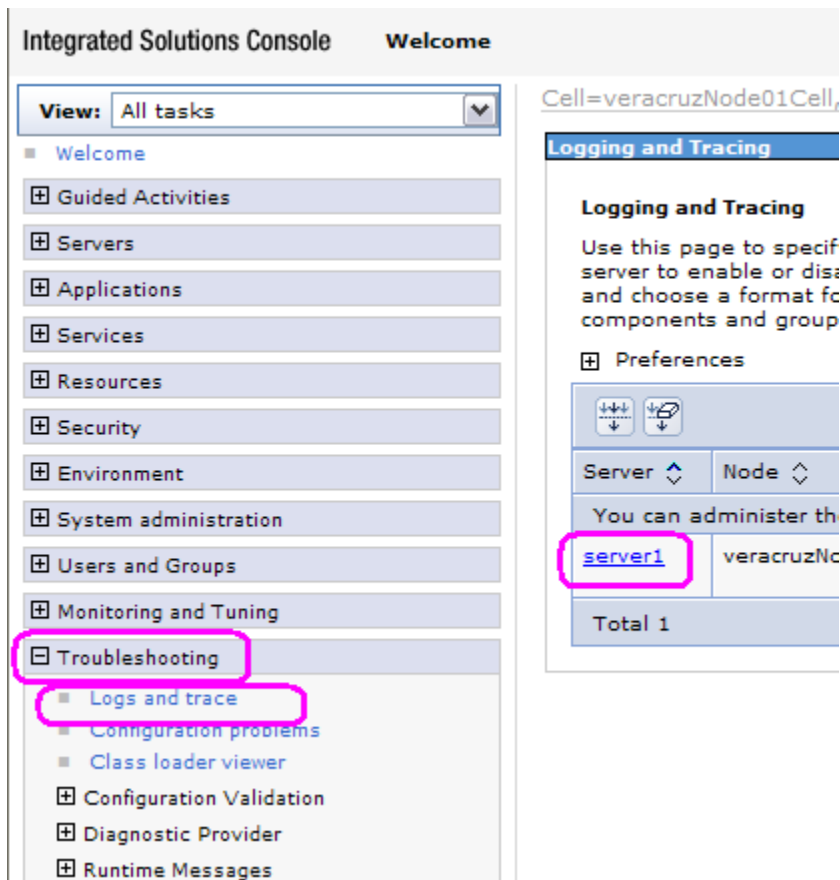
WAS V8: The string should be:

=info: JMSApi=all: Messaging=all: com.ibm.mq.=all

WebSphere Application Server V6 and V7: The string should be (in one single line)

=info:JMSApi=all:JMSServer=all:Messaging=all:JMS_WASTraceAdapter=all:com.ibm.mq.=all:jmsApi=all

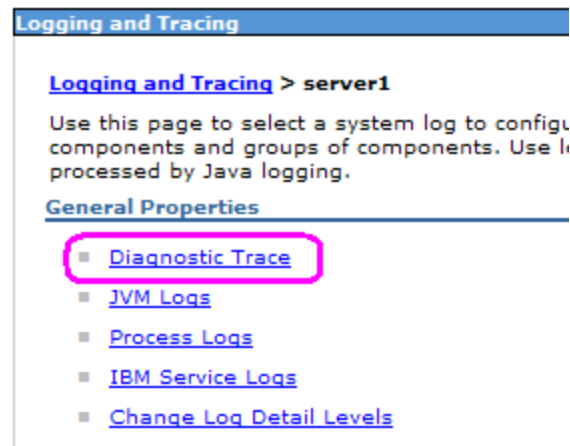
Select: Troubleshooting -> Logs and Trace.



- For WAS V6, V7, V8 and V9 (using old style and not using new HPEL) go to page 14.
- For WAS V8 (using new HPEL) to go page 17.

For WAS V6, V7, V8 and V9 (Legacy, NOT using HPEL):

Select: Diagnostic Trace



To ensure you capture full data flows, select:
Trace Output Format = Advanced

Then select:
Change Log Details Levels

Logging and Tracing

[Logging and Tracing](#) > [server1](#) > **Diagnostic trace service**

Use this page to view and modify the properties of the diagnostic trace service. Diagnostic trace provides detailed information about how the application server components run within this managed process. Changes on the Configuration panel apply when the service is restarted. Changes on the Runtime panel apply immediately.

Configuration

Runtime

General Properties

Trace Output

☐ None

☐ Memory Buffer

* Maximum Buffer Size

8

thousand entries

☒ File

* Maximum File Size

20

MB

* Maximum Number of Historical Files

1

* File Name

\$(SERVER_LOG_ROOT)/trace.log

Trace Output Format

Advanced

Additional Properties

Change Log Detail Levels

Specify the string (all in one single line):

WAS V9.0 (all on one line):

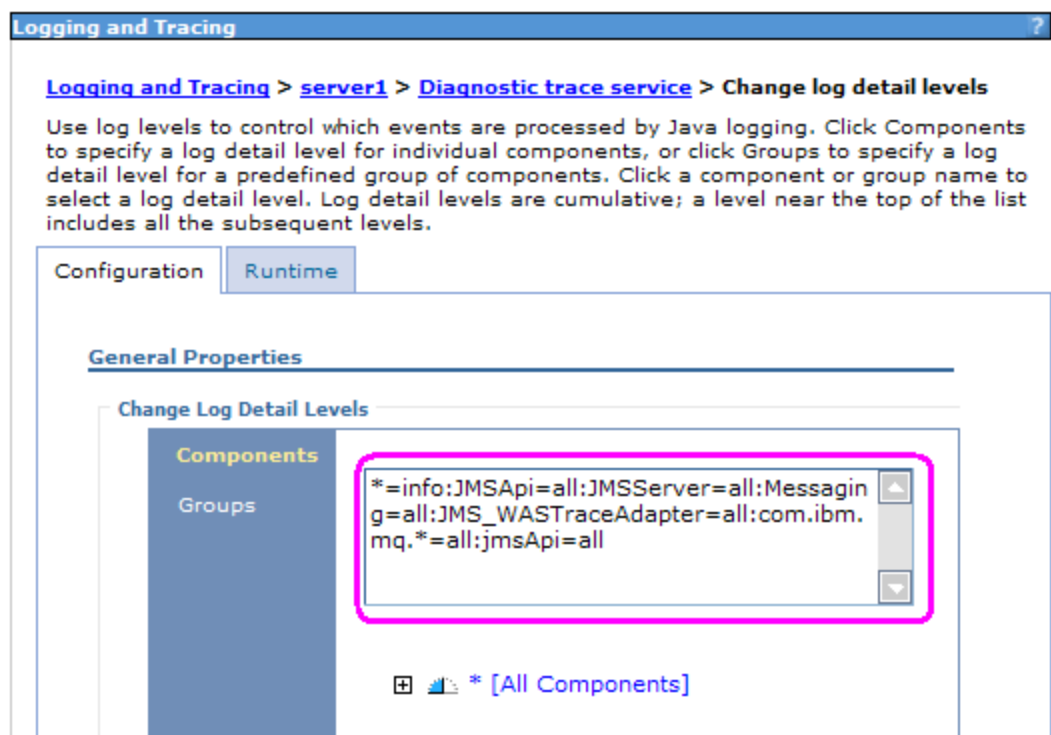
`*=info:jmsApi=all:Messaging=all:com.ibm.mq.*=all:JMSApi=all:com.ibm.ws.cdi.jms*=all`

WAS V8:

`*=info: JMSApi=all: Messaging=all: com.ibm.mq.*=all`

WAS V6 and V7:

`*=info:JMSApi=all:JMSServer=all:Messaging=all:JMS_WASTraceAdapter=all:com.ibm.mq.*=all:jmsApi=all`



Location of trace files

`<WAS_HOME>\profiles\<server_name>\logs\<server_name>\trace.log`

To disable the trace in WebSphere Application Server:

After you have finished collecting the trace, please disable the tracing to avoid unnecessary consumption of system resources and disk space

Change Log Detail Levels:

`*=info`

For WAS V8 and later (using the new HPEL):

Select: Configure HPEL trace

Logging and tracing

[Logging and tracing](#) > **server1**

Use this page to select a system log to configure, or to specify log detail I

General Properties

[Configure HPEL logging](#)

Directory	C:\Program Files\IBM\WebS
For cleanup, delete records older than	Disabled
For cleanup, maximum size of logs	50 Megabytes

[Configure HPEL trace](#)

Directory	C:\Program Files\IBM\WebS
For cleanup, delete records older than	Disabled
For cleanup, maximum size of trace	50 Megabytes

[Configure HPEL text log](#)

Current status:	Enabled
Directory	C:\Program Files\IBM\WebS
For cleanup, delete records older than	Disabled
For cleanup, maximum size of text log	50 Megabytes

Related Items

- [View HPEL logs and trace](#)
- [Change log detail levels](#)
- [Change log and trace mode](#)
- [Manage process logs](#)
- [NCSA access and HTTP error logging](#)

Select: Change log detail levels

Logging and tracing

[Logging and tracing](#) > [server1](#) > **HPEL Trace Configuration**

Use this page to configure High Performance Extensible Logging (HPEL) trace options. The HPEL trace can be viewed using the logViewer command (in the profile bin directory), or using the View HPEL Logs and Trace link.

Configuration **Runtime**

General Properties

- ☒ Trace to a directory
 - ☒ Enable log record buffering
 - ☒ Start new log file daily at: 12 AM

Log record purging policies

- ☒ Begin cleanup of oldest records
 - when log size approaches maximum
 - Log record age limit: 48 Hours old
 - Maximum log size: ..

Additional Properties

- [Change log detail levels](#)

Related Items

- [View HPEL logs and trace](#)

Specify the string (all in one single line):

WAS V9.0 (all on one line):

`*=info:jmsApi=all:Messaging=all:com.ibm.mq.*=all:JMSApi=all:com.ibm.ws.cdi.jms*=all`

WAS V8:

`*=info: JMSApi=all: Messaging=all: com.ibm.mq.*=all`

[Logging and tracing](#) > [server1](#) > [HPEL Trace Configuration](#) > **Change log detail levels**

Use log levels to control which events are processed by Java logging. Click Components to specify a log detail level for individual components, or click Groups to specify a log detail level for a predefined group of components. Click a component or group name to select a log detail level. Log detail levels are cumulative; a level near the top of the list includes all the subsequent levels.

Configuration **Runtime**

General Properties

- ☐ Disable logging and tracing of potentially sensitive data (WARNING: This might cause the log detail level setting to be modified when it is applied on the server.)

Change log detail levels

Components

Groups

`*=info: JMSApi=all: Messaging=all: com.ibm.mq.*=all`

Location of trace files:

<WAS_HOME>\profiles\<server_name>\logs\<server_name>\tracedata*

To disable the trace in WebSphere Application Server do the following:

After you have finished collecting the trace, please disable the tracing to avoid unnecessary consumption of system resources and disk space

Change Log Detail Levels:

*=info

+++++ Specification for the MQ Native Libraries for Bindings Transport Type +++++

In order to locate the WebSphere MQ V7 or later native libraries required for BINDINGS mode, the application server needs to be configured to have the generic Java Virtual Machine (JVM) argument set to the location of the libraries.

-Djava.library.path

For information about where these files are installed, please see the "The Java Native Interface (JNI) libraries required by WebSphere MQ classes for JMS applications" section in the online manual for MQ

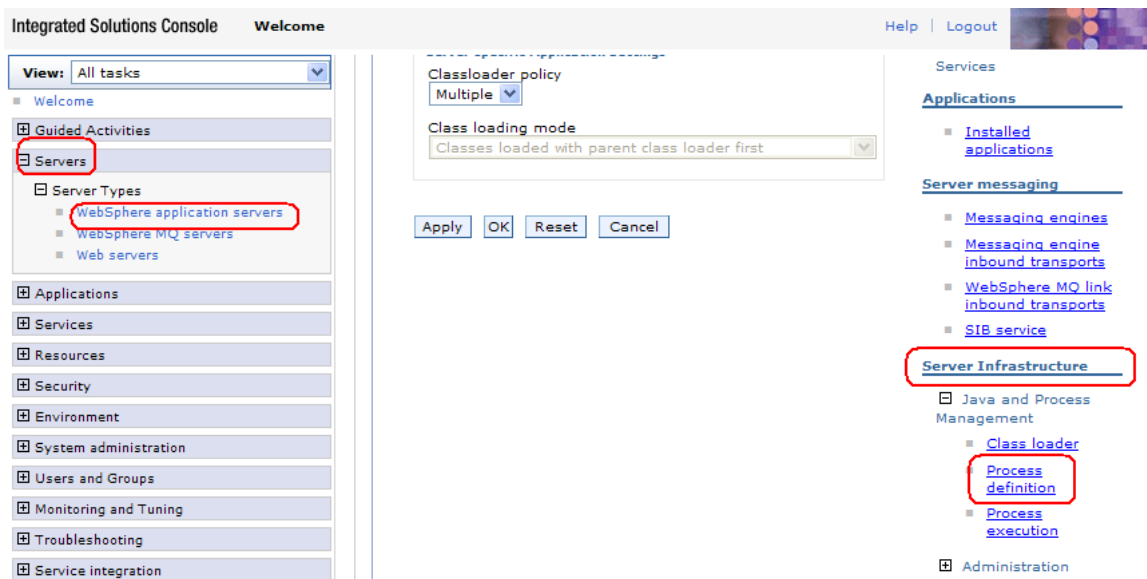
http://www.ibm.com/support/knowledgecenter/SSFKSJ_9.0.0/com.ibm.mq.dev.doc/q031570_.htm

The Java Native Interface (JNI) libraries required by IBM MQ classes for JMS applications

+++ WebSphere Application Server 6

From the WebSphere Application Server V6 Admin Console:

Click on Servers > Application Servers > server1.
Then, under "Server Infrastructure",
click Java and Process Management > Process definition



Then select “Java Virtual Machine”

Cell=aemtux3Node01Cell, Profile=AppSrv01

Application servers

[Application servers](#) > [server1](#) > [Process definition](#) > [Java Virtual Machine](#)

Use this page to configure advanced Java(TM) virtual machine settings.

Configuration **Runtime**

General Properties

Generic JVM arguments

Under “Generic JVM arguments”, enter:
-Djava.library.path=library_path

For Linux 32-bit, it should be:
-Djava.library.path=/opt/mqm/java/lib

For Linux 64-bit, HP-UX and Solaris, the string is:
-Djava.library.path=/opt/mqm/java/lib:/opt/mqm/java/lib64

For AIX, the string is:
-Djava.library.path=/usr/mqm/java/lib:/usr/mqm/java/lib64

+++ WebSphere Application Server V7 or later

It is required for bindings mode applications that the JMS runtime must access the appropriate "bindings module" in the "native" WMQ libraries.

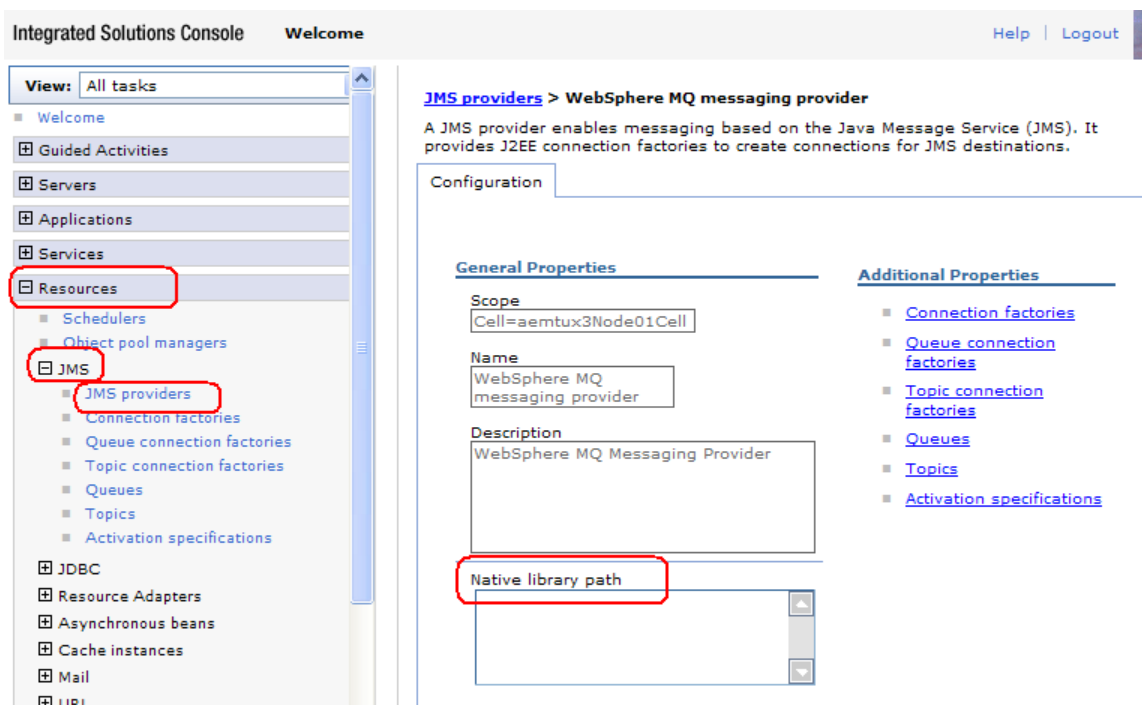
Thus the Resource Adapter's "native library path" must be configured to point to the WMQ directory where these libraries are located:

AIX: /usr/mqm/java/lib
 Unix: /opt/mqm/java/lib
 Windows: C:\Program Files\IBM\WebSphere MQ\java\lib

For more information see the following web page from the WebSphere Application Server online manual:

http://www.ibm.com/support/knowledgecenter/SSEQTP_7.0.0/com.ibm.websphere.base.doc/info/aes/ae/tmj_adm33.html

Configuring the WebSphere MQ messaging provider with native libraries information



The procedure is:

- In the navigation pane, expand Resources > JMS > JMS providers
- Select the WebSphere MQ messaging provider that is at the correct Scope for the connection factory or activation specification that will create the bindings mode connection. Note that native path information at Server scope is used in preference to native path information at higher scopes, and native path information at Node scope is used in preference to native path information at Cell scope.
- Under General Properties, in the Native library path property, enter the full name of the directory that contains the WebSphere MQ native libraries.
For example, on Linux enter /opt/mqm/java/lib. Enter only one directory name.
Click OK.
- Save any changes to the master configuration.
- If you are running in an application server environment, you must restart all affected servers twice when you have changed the native path information. Otherwise, a WMSG1623E message is produced, indicating that the WebSphere MQ messaging provider is not available.

+++++ Enablement of new MQ V7 functions: Read Ahead, Asynchronous Put +++++

These functions are ONLY available in WebSphere Application Server V7 and later.

Read Ahead

Resources > JMS > Queues > \$QueueName/\$TopicName > Advanced properties
Section: Optimizations

The screenshot shows the 'Queues' configuration page in the WebSphere Administration Console. The breadcrumb trail is 'Queues > SampleMDBQueue'. Below the title, there is a description: 'Queue destinations provided for point-to-point messaging by the WebSphere MQ messaging provider. Use WebSphere MQ queue destination administrative objects to manage queue destinations for the WebSphere MQ messaging provider.' A 'Configuration' tab is selected. The page is divided into two main sections: 'General Properties' and 'Additional Properties'. Under 'General Properties', there is an 'Administration' section with fields for 'Scope' (Node=veracruzNode01,Server=server1), 'Provider' (WebSphere MQ messaging provider), and required fields for 'Name' (SampleMDBQueue) and 'JNDI name' (jms/SampleMDBQueue). Under 'Additional Properties', there are three links: 'Advanced properties' (highlighted with a red box), 'WebSphere MQ Queue Connection Properties', and 'Custom properties'.

Queues > **SampleMDBQueue**

Queue destinations provided for point-to-point messaging by the WebSphere MQ messaging provider. Use WebSphere MQ queue destination administrative objects to manage queue destinations for the WebSphere MQ messaging provider.

Configuration

General Properties

Administration

Scope
Node=veracruzNode01,Server=server1

Provider
WebSphere MQ messaging provider

* Name
SampleMDBQueue

* JNDI name
jms/SampleMDBQueue

Additional Properties

- [Advanced properties](#)
- [WebSphere MQ Queue Connection Properties](#)
- [Custom properties](#)

You will see the Advanced Properties:

Queues

[Queues](#) > [SampleMDBQueue](#) > **Advanced properties**

View and set the advanced properties of a WebSphere MQ destination

Configuration

General Properties

Delivery

Persistence
As set by application ▼

Priority
As set by application ▼

Specified priority

You will need to scroll down.
Section: Optimizations

Optimizations

Asynchronously send messages to the queue manager
As per queue definition ▼

Read ahead, and cache, non-persistent messages for consumers
As per queue definition ▼

Read ahead consumer close method
Wait for all cached messages to be delivered ▼

Apply OK Reset Cancel

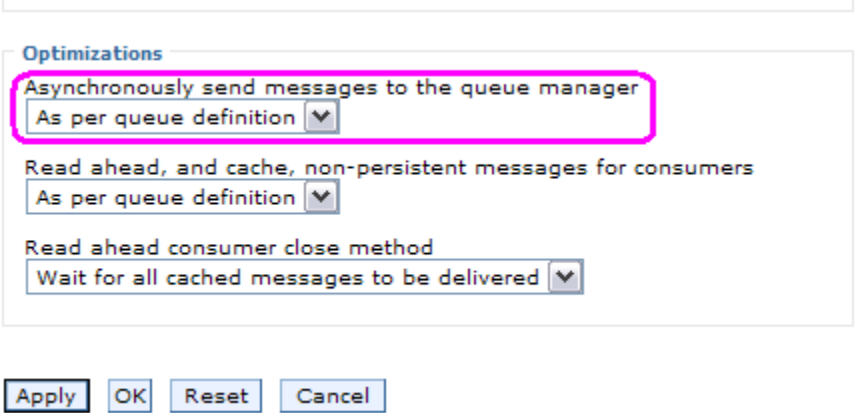
Read ahead, and cache, non-persistent messages for consumers
As per queue definition
Yes
No

Read ahead consumer close method
Wait for all cached messages to be delivered
Wait for the current message to be delivered

Asynchronous put ("fire and forget")

Resources > JMS > Queues > \$QueueName/\$TopicName > Advanced properties
Section: Optimizations

See previous page for the "Advanced Properties".



Optimizations

Asynchronously send messages to the queue manager
As per queue definition ▼

Read ahead, and cache, non-persistent messages for consumers
As per queue definition ▼

Read ahead consumer close method
Wait for all cached messages to be delivered ▼

Apply OK Reset Cancel

Asynchronously send messages to the queue manager
As per queue definition
Yes
No

+++++
 +++ Additions in WAS V8 and later: connection name list, advanced properties
 +++++

These functions are ONLY available in WebSphere Application Server V8 and later.

+ Support for WMQ connection name list in a Connection Factory (CF) or an Activation Specification (AS).

During the creation of any of these objects:

Notice the new radio button to choose between a single host/port or a connection name list

WebSphere. software Welcome

View: All tasks

- Welcome
- Guided Activities
- Servers
- Applications
- Services
- Resources**
 - Schedulers
 - Object pool managers
 - JMS**
 - JMS providers
 - Connection factories**
 - Queue connection factories
 - Topic connection factories
 - Queues
 - Topics
 - Activation specifications
 - JDBC
 - Resource Adapters
 - Asynchronous beans
 - Cache instances
 - Mail

Custom WebSphere MQ connection

Custom WebSphere MQ connection

Step 1: Configure basic attributes

Step 2: Select connection method

Step 2.1: Supply queue manager details

→ **Step 2.2: Enter connection details**

Step 3: Test connection

Step 4: Summary

Enter connection details

Enter the details required to establish a connection to the queue manager or queue sharing group

Transport

Bindings, then client

☒ Enter host and port information in the form of separate hostname and port values

* Hostname

localhost

Port

1420

☐ Enter host and port information in the form of a connection name list

Connection name list

Server connection channel

SYSTEM.DEF.SVRCONN

+ Exposing additional WMQ properties

Several existing WMQ properties that were previously set via custom properties are now available in the WAS Administrative Console.

Queue connection factories: Client reconnect

Client reconnect options (Disabled)

Client reconnect timeout (1,800 seconds)

Cell=p6tpm16gCell01, Profile=Dmgr01


Queue connection factories

[Queue connection factories](#) > [zz](#) > **Advanced properties**

These properties are used to configure advanced functionality when using a JMS connection factory to

Configuration

General Properties

Client reconnect
Client reconnect options
 
Client reconnect timeout
 seconds

Queues, Advanced properties:

Message Body: Unspecified, JMS, MQ



Reply to style: Default, MQMD, RFH2

Queues

[Queues](#) > [mqg1](#) > **Advanced properties**

View and set the advanced properties of a WebSphere MQ destination

Configuration

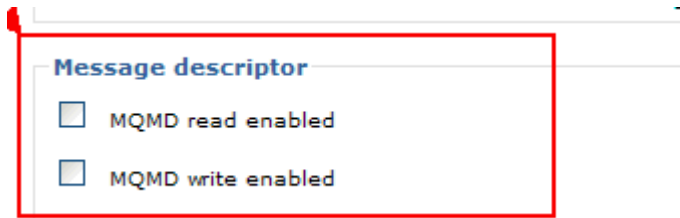
Message body
 
Reply to style
 

Queues, Advanced properties:

Message descriptor:

MQMD read enabled

MQMD write enabled



The screenshot shows a web interface with a section titled "Message descriptor" in blue text. Below the title are two checkboxes, each followed by the text "MQMD read enabled" and "MQMD write enabled" respectively. A red rectangular box is drawn around the entire "Message descriptor" section, including the title and the two checkboxes.

+++ end +++