

Sun Java System Message Queue Release Notes

Version 3 2005Q4 (3.6 SP3)

Part Number 819-2569-10

These release notes contain important information available at the time of release of Sun Java™ System Message Queue 3 2005Q4 (3.6 SP3). This document also includes the contents of the Sun Java™ System Message Queue 3 2005Q1 (3.6) release notes for customers who are upgrading from pre-Message Queue 3 2005Q1 versions. New features and enhancements, known issues and limitations, and other information are addressed here. Read this document before you begin using Message Queue.

The most up-to-date version of these release notes can be found at the Sun Java System Message Queue documentation web site: <http://docs.sun.com/coll/1307.1>. Check the web site prior to installing and setting up your software and then periodically thereafter to view the most up-to-date release notes and product documentation.

These release notes contain the following sections:

- “Release Notes Revision History” on page 2
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Third-party URLs are referenced in this document and provide additional, related information.

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Release Notes Revision History

Table 1 Revision History

Date	Description of Changes
August 26, 2006	<ul style="list-style-type: none"> Update "About Message Queue 3 2005Q4 (3.6 SP3)" on page 3. Update "Documentation Updates for Message Queue 3 2005Q4 (3.6 SP3)" on page 21 Update "Hardware and Software Requirements" on page 5 for Message Queue 2005Q4 (3.6 SP3). Add fixed bugs for Message Queue 3 2005Q4 (3.6 SP3) to "Bugs Fixed in This Release" on page 10.
June 28, 2005	<ul style="list-style-type: none"> Add fixed bugs for Message Queue 3 2005Q1 (3.6 SP1) and Message Queue 32005Q4 (3.6 SP2) to "Bugs Fixed in This Release" on page 10.
May 1, 2005	<ul style="list-style-type: none"> Update the section "Issues Related to the Next Major Release of Message Queue" on page 19 with new information. Add an Interface Stability statement in the Compatibility section.
January 24, 2005	Update in synch with revenue release of Sun Java System Message Queue 3 2005Q1 and Java Enterprise System 2005Q1.
November 8, 2004	Initial release of <i>Sun Java System Message Queue Release Notes</i> .

About Message Queue 3 2005Q4 (3.6 SP3)

Message Queue 3 2005Q4 (3.6 SP3) is a bugfix update of Message Queue 3 2005Q1 (3.6). It contains all fixes that were in 3.6 SP2 and 3.6 SP1, as well as new updates to documentation.

Message Queue 3 2005Q1 (3.6)

Sun Java System Message Queue is a full-featured message service that provides reliable, asynchronous messaging that conforms to the Java Messaging Specification (JMS) 1.1. In addition, Message Queue provides a host of features that go beyond the JMS specification to provide for the needs of large-scale enterprise deployments.

This section includes:

- [“What’s New in This Release” on page 3](#)
- [“Hardware and Software Requirements” on page 5](#)

What’s New in This Release

New features in Message Queue 3 2005Q1 (3.6) include:

- [“Dead Message Queue”](#)
- [“No Acknowledge Mode”](#)
- [“Client Message Body Compression”](#)
- [“Connection Failure Detection \(Client Runtime Ping\)”](#)
- [“Certificate Management: C-API NSS Tools”](#)
- [“Support for C-API Basic Authentication”](#)
- [“64-bit C-API Support”](#)

These are described in the following sub-sections.

Dead Message Queue

Message Queue automatically creates a specialized destination at broker startup that is used to store dead messages for diagnostic purposes. A *dead message* is one that is removed from the system for a reason other than normal processing or explicit administrator action. A message might be considered dead because it has expired, because it has been removed from a destination due to memory limit overruns, or because of failed delivery attempts.

An administrator can configure destinations to either discard dead messages or place them in the dead message queue. When placed in the dead message queue, additional property information is written into the message, providing an administrator with information about the cause of death. A client developer can also set a property value when creating a message that determines whether the message should be placed in the dead message queue were it to die.

For more information, see the *Message Queue Administration Guide*.

No Acknowledge Mode

The `NO_ACKNOWLEDGE` acknowledgement mode is an extension to the JMS API. Normally, the broker waits for a client acknowledgement. That acknowledgement must be made programmatically if the client has specified `CLIENT_ACKNOWLEDGE` or it can be made automatically, by the session, if the client has specified `AUTO_ACKNOWLEDGE` or `DUPS_OK`. If a consuming client specifies the `NO_ACKNOWLEDGE` mode, the broker discards the message as soon as it has sent it to the consuming client. This feature is intended for use by non-durable subscribers consuming non-persistent messages, but it can be used by any consumer.

Using this feature improves performance by reducing protocol traffic and broker work involved in acknowledging a message. This feature can also improve performance for brokers dealing with misbehaving clients who do not acknowledge messages and therefore tie down broker memory resources unnecessarily. Using this mode has no effect on producers.

There is no support for the `NO_ACKNOWLEDGE` mode in C clients. For more information, see the *Message Queue Developer's Guide for Java Clients*.

Client Message Body Compression

The developer can specify that the body of a message can be compressed. Message compression and decompression is handled entirely by the client runtime and does not affect the broker. Therefore, applications can use this feature with a previous version of the broker, but they must use version 3 2005Q1 (3.6) of the Message Queue client runtime library.

Advantages and Limitations of Compression Although message compression has been added to improve performance, such benefit is not guaranteed. Benefits vary with the size and format of messages, the number of consumers, network bandwidth, and CPU performance. For example, the cost of compression and decompression might be higher than the time saved in sending and receiving a compressed message. This is especially true when sending small messages in a high-speed network. On the other hand, applications that publish large messages to many consumers or who publish in a slow network environment, might improve system performance by compressing messages.

Message consumers deployed with client runtime libraries that precede version 3 2005Q1 (3.6) cannot handle compressed messages. Clients configured to send compressed messages must make sure that consumers are compatible. C clients cannot currently consume compressed messages.

For more information, see the *Message Queue Developer's Guide for Java Clients*.

Connection Failure Detection (Client Runtime Ping)

Message Queue 3 2005Q1 introduces a new `ConnectionFactory` attribute named `imgPingInterval`. The `imgPingInterval` attribute specifies the frequency of a ping operation from the client runtime to the broker. By periodically testing the connection, the client runtime can preemptively detect a failed connection. If the ping operation fails, the client runtime throws an exception to the client application's exception listener object. If the application does not have an exception listener, the application's next attempt to use the connection fails.

For more information, see the *Message Queue Administration Guide*.

Certificate Management: C-API NSS Tools

The C-API uses NSS (Network Security Services) libraries to support SSL. These libraries provide APIs and utilities for developing secure applications. These utilities include tools to manage keys and certificate databases. In Message Queue 3.5, we asked developers to use Mozilla to manage NSS keys and certificates. In Message Queue 3 2005Q1, administrators can use the NSS `certutil` tool to generate the needed keys and certificates.

For more information, see the *Message Queue Developer's Guide for C Clients*.

Support for C-API Basic Authentication

Message Queue 3 2005Q1 C-API supports the `basic` authentication type. Previous releases of Message Queue did not support the `basic` authentication type.

64-bit C-API Support

Message Queue now contains 64-bit C-API support on the Solaris/SPARC platform. For more information about enabling 64-bit C-API support, see the *Message Queue Developer's Guide for C Clients*.

Hardware and Software Requirements

This section specifies or describes the hardware and software required for this release of Message Queue. [Table 2](#) lists hardware and software requirements for Solaris SPARC operating systems.

Table 2 Solaris SPARC Hardware and Software Requirements

Component	Platform Requirement
Operating System	Solaris 8, Update 7 Solaris 9, Update 7 Solaris 10, Update 1 (Includes 32 and 64 bit support for Solaris 8, Solaris 9, and Solaris 10)

Table 2 Solaris SPARC Hardware and Software Requirements (*Continued*)

Component	Platform Requirement
CPU	Sun UltraSPARC™ Note: To ensure proper operation of Message Queue, you should install all required Solaris Patches for Java 2 Platform, Standard Edition 5.0. For the latest information about the patches and to download the recommended and required patches, see: http://java.sun.com/j2se/1.5.0/download.jsp
RAM	256 Mbytes
Disk space	Platform Edition: The compressed installation file is approximately 33 Mbytes. The temporary working directory used for extracting the installation files requires an additional 33 Mbytes. The installed product requires approximately 33 Mbytes of hard drive space. Message Queue, however, may need more space if the broker stores persistent messages locally. Enterprise Edition: The compressed installation file is approximately 152 Mbytes. The temporary working directory used for extracting the installation files requires an additional 152 Mbytes. The installed product requires approximately 33 Mbytes of hard drive space. Message Queue, however, may need more space if the broker stores persistent messages locally.

Table 3 lists hardware and software requirements for Solaris x86 operating systems.

Table 3 Solaris x86 Hardware and Software Requirements

Component	Platform Requirement
Operating System	Solaris 9, Update 7 Solaris 10, Update 1 (Includes 32 and 64 bit support for Solaris 9 and Solaris 10)
CPU	Intel Pentium 2 (or compatible) Note: To ensure proper operation of Message Queue, you should install all required Solaris Patches for Java 2 Platform, Standard Edition 5.0. For the latest information about the patches and to download the recommended and required patches, see: http://java.sun.com/j2se/1.5.0/download.jsp
RAM	256 Mbytes

Table 3 Solaris x86 Hardware and Software Requirements (*Continued*)

Component	Platform Requirement
Disk space	<p>Platform Edition:</p> <p>The compressed installation file is approximately 22 Mbytes.</p> <p>The temporary working directory used for extracting the installation files requires an additional 22 Mbytes.</p> <p>The installed product requires approximately 22 Mbytes of hard drive space. Message Queue, however, may need more space if the broker stores persistent messages locally.</p> <p>Enterprise Edition:</p> <p>The compressed installation file is approximately 115 Mbytes.</p> <p>The temporary working directory used for extracting the installation files requires an additional 115 Mbytes.</p> <p>The installed product requires approximately 22 Mbytes of hard drive space. Message Queue, however, may need more space if the broker stores persistent messages locally.</p>

[Table 4](#) lists hardware and software requirements for Linux operating systems.

Table 4 Linux Hardware and Software Requirements

Component	Platform Requirement
Operating System	<p>Red Hat Advanced Server 2.1, Update 6</p> <p>RedHat Advanced Server 3.0, Update 4</p> <p>Note: The Message Queue software distribution includes the required JRE version at the time of release.</p>
CPU	Intel Pentium 2 (or compatible)
RAM	256 Mbytes

Table 4 Linux Hardware and Software Requirements (*Continued*)

Component	Platform Requirement
Disk Space	<p>Platform Edition:</p> <p>The zip file containing the product is approximately 17 Mbytes.</p> <p>The installed product requires approximately 17 Mbytes of hard drive space. Message Queue, however, may need more space if the broker stores persistent messages locally.</p> <p>Enterprise Edition:</p> <p>The zip file containing the product is approximately 104 Mbytes.</p> <p>The temporary working directory used for extracting the installation files requires an additional 104 Mbytes.</p> <p>The installed product requires approximately 17 Mbytes of hard drive space. Message Queue, however, may need more space if the broker stores persistent messages locally.</p>

Message Queue 3 2005Q1 also depends upon other technologies, as indicated in [Table 5](#). Other versions or vendor implementations can also be used but they are untested by Sun Microsystems and therefore not supported.

[Table 5](#) lists and describes the basic components that you must install in order to be able to develop and run Message Queue clients.

Table 5 Message Queue 3 2005Q1 Basic Product Support Matrix

Platform/Product	Used For	Supported Platform/Product Version
Java Runtime Environment (JRE) (Sun Microsystems versions only)	Message Queue broker (message server) and Message Queue administration tools	Java Runtime Environment 1.4.2_05 Java 2 Platform, Standard Edition, 5.0 (1.5.0_02): <ul style="list-style-type: none"> Solaris 8 (SPARC), Solaris 9 (SPARC and X86), and Solaris 10 (SPARC and X86). Linux Red Hat Advanced Server 2.1, Update 6, and Linux Red Hat Advanced Server 3.0, Update 4. Windows XP Professional SP2, 2000 all editions SP4, Windows Server 2003 Enterprise Edition.
Java Software Development Kit (JDK), Standard Edition (Sun Microsystems production versions only)	Java client development and deployment (Java SOAP/JAXM clients are supported only on JDK 1.4.2 and 1.5)	JDK 1.4.2_05 Java 2 Platform, Standard Edition, 5.0 (1.5.0_02): <ul style="list-style-type: none"> Solaris (same platforms as JRE) Linux (same platforms as JRE) Windows (same platforms as JRE)

Table 6 lists and describes the components that you can install to provide additional support for a Message Queue client. You might just need some of the components listed. For example, if you are not writing a C client to Message Queue, you will not need any of the components required for C client support.

Table 6 Message Queue 3 2005Q1 Optional Product Support Matrix

Product	Used For	Supported Product Version
LDAP Directory Server	Message Queue user repository and administered object support	Sun Java System Directory Server Version 5.2 SP 3
Web Server	HTTP and HTTPS support	Sun Java System Web Server, Enterprise Edition Version 6.1 SP 4
Application Server	HTTP and HTTPS support	Sun Java System Application Server, Enterprise Edition 8.1
Database	Plugged-in persistence support	PointBase, Version 4.8 Oracle 9i, Version 9.2
JNDI (Java Naming and Directory Interface)	administered object support	<ul style="list-style-type: none"> • JNDI Version 1.2.1 • LDAP Service Provider Version 1.2.2 • File System Service Provider Version 1.2 Beta 3 (supported for development and testing, but not for deployment in a production environment.)
C Compiler and compatible C++ runtime library	Message Queue C client support	<ul style="list-style-type: none"> • Solaris: Sun WorkShop 6, Update 2 or later C++ compiler with <code>-compat=5</code>, Sun WorkShop C compiler • Linux: gcc/g++ 2.96 • Windows: Microsoft Windows Visual C++ 6.0, SP3
NSPR (Netscape Portable Runtime)	Message Queue C client support	Version bundled with Java Enterprise System 2005Q1. For the Platform Edition, this is installed as a shared package.
NSS (Network Security Service)	Message Queue C client support	Version bundled with Java Enterprise System 2005Q1. For the Platform Edition, this is installed as a shared package.

Bugs Fixed in This Release

[Table 7](#) describes the bugs fixed in Message Queue 3 2005Q1 (3.6):

Table 7 Fixed Bugs in Message Queue 3 2005Q1 (3.6)

Bug Number	Description
2091749	Broker gets Null Pointer Exception on shared thread pool under load.
2092975	Persistent store should continue to load if deserialization fails on one destination.
2092976	Periodic error processing message to topic when a consumer with a selector was being closed as the message was being routed through the system.
4888259	<code>vmargs</code> are getting overridden if we pass more than one to <code>imqbroker</code> on Windows.
4934433	Packet code should defend against large packets.
4941127	Destination will not completely load if a message exceeds individual msg size limit
4949398	<code>imqcmd query dst</code> reports wrong numbers while a destination is being loaded
4953659	Message Queue client never calls <code>ExceptionListener.onException</code> on half open connection.
4962906	Broker should detect stale database connection and reconnect.
4969880	<code>Receive(timeout)</code> returns null before timeout expires with frequently closing connections.
4970719	Messages with acks in prepared transaction may be resent to consumers.
4983525	Error creating producer on autocreated destination in linux 3.0 system.
4987799	Message Queue Resource Adapter and broker needs to support shared subscriptions for Application Server 8.1 Enterprise Edition Clusters.
4989708	<code>imqbrokerd</code> always behaves as if <code>imq.transaction.autorollback</code> is true.
4992645	Message Queue Resource Adapter: JMS Resource Adapter needs to support connection pooling.
4996776	Broker throws <code>ConcurrentModificationExceptions</code> with high client load plus metrics.
5004868	Deleted transactions are not removed from JDBC database.
5014570	QBrowser example does not work with Platform Edition.
5024685	Access Control Lists: <code>queue.create.deny.user=*</code> and <code>imq.autocreate.queue=true</code> interact poorly.
5025241	Durable subscriber with <code>noLocal=true</code> receives self-published messages.
5037962	Mismatch between master broker's state and log causes deadlocks at startup.
5042763	File store code should use <code>FileChannel.force(false)</code> to improve synchronous IO performance.

Table 7 Fixed Bugs in Message Queue 3 2005Q1 (3.6) (Continued)

Bug Number	Description
5046995	Message Queue Java client protocol negotiation implementation does not work reliably.
5053565	Message Queue 3.5 SP1: Broker spins and burns CPU in a cluster with a master.
5063625	Queue receiver stops receiving messages with remote messages intended for it in two-broker cluster.
6021000	Deadlock in broker when adding and removing consumers under heavy load.
6057402	Master broker deadlock on restart if it had removed destination with durables.
6057450	<code>imqcmd</code> : Cannot set <code>maxNumBackupConsumers</code> to 0 for queues.
6155087	Broker with bad broker name and durable subscriber in cluster hangs on shutdown.
6155091	JDBC: " <code>--reset store</code> " takes a long time with large messages and Oracle
6157943	<code>imqbrokerd</code> service does not shutdown cleanly on Windows 2000 reboot.
6165743	Message Queue Resource Adapter: Repeated use of <code>connection.open/close</code> under stress could cause <code>IllegalStateException</code> .
6165984	<code>imqSSLIsHostTrusted</code> is ignored when <code>imqAddressList</code> is used to specify client to make SSL connection.
6170578	Message Queue Resource Adapter: <code>ManagedConnectionFactory</code> should inherit the properties that are set in the Resource Adapter java bean.
6170831	Message Queue Resource Adapter:MDB undeployment timing problem could cause Null Pointer Exception if messages are still being received.
6174532	JMS brokers redeliver messages that have already been consumed by MDBs.
6178549	Reload <code>cls</code> loses configured broker list if <code>-D imq.cluster.url</code> is used on command line
6189214	<code>MQ_MESSAGE_ID_HEADER_PROPERTY</code> (C) in received message differs from <code>JMSMessageID</code> in sent msg (Java).

[Table 8](#) describes the bugs fixed in Message Queue 3 2005Q1 (3.6 SP1):

Table 8 Fixed Bugs in Message Queue 3 2005Q1 (3.6 SP1)

Bug Number	Description
6198481	Message Queue Reconnect Attempts should use Application Server reconnect-attempts/interval config and make reconnects interruptible for MDBs.
6205463	RichAccess, after failure injection messages build up on destination, out of memory error seen in 3 hours.
6208728	Message Queue Reconnect Attempts:Endpoint UnavailableException in Application Server log for richAccess bigApp after MQ broker shutdown/restart.
6221802	Upgrade NSPR/NSS to SECURITY_3_9_5_RTM.

[Table 9](#) describes the bugs fixed in Message Queue 3 2005Q4 (3.6 SP2):

Table 9 Fixed Bugs in Message Queue 3 2005Q4 (3.6 SP2)

Bug Number	Description
4737166	Add uncaught exception handling for ALL broker threads
4959114	imqBrokerServiceName with bad service name gives unhelpful exception
4960331	The exception java.lang.NullPointerException thrown when loading from a corrupted db
4961780	The imqcmd metrics dst command can show 0 msgs/sec even though there is (small) message traffic
5017152	The same resource key is used for both menu item label and dialog box title.
5029191	The same string keys are used in Menu and pop-up menu
5055667	Unknown Destination:temporary_destination sometimes seen at shutdown
6172663	Internal flag isTopicConnection set wrong when created a unified connection.
6172794	New remote consumer does not receive messages on autocreated destination (cluster/rare)
6173336	Producer flow control may hang when producers constantly added to full destination
6175764	Cluster issue: quickly closing and re-opening durable may cause internal error
6176411	Broker does not catch uncaught exceptions in accept threads for services
6186193	Messages are sent to System.out/System.err in the broker in some cases
6186329	Messages during cluster initialization confusing w/o -tty
6186615	Some gui fields in the imqadmin tool appear to have zero size so you cannot see their contents

Table 9 Fixed Bugs in Message Queue 3 2005Q4 (3.6 SP2) (Continued)

Bug Number	Description
6189645	Client runtime reconnect will deadlock if broker connection fails during <code>connection.start()</code> .
6191835	Message Queue Resource Adapter/client to fix how daemon threads specified to avoid current <code>AccessControlException</code> .
6193884	Message Queue outputs garbage message to syslog in non-C locale.
6195048	3.6 broker throws exception when loading 3.5 store with PREPARED transaction
6196233	Message selection using <code>JMSMessageID</code> does not work
6198465	Asynchronous message listener behavior change in app-client from Application Server 8.0 to 8.1
6205641	The jaxm demo has wrong application server locations
6206595	Sparc versions of <code>SUNWiqcrt</code> and <code>SUNWiqcdv</code> should not depend on 64-bit <code>SUNWprx</code> , <code>SUNWtlx</code> .
6206611	Need to add 64-bit libs to Message Queue x86 pkgs to support amd64
6208740	Reset store with Master Broker tries to destroy Dead Message Queue (DMQ).
6213561	<code>web.xml</code> in the <code>imq/jaxm/README</code> should be updated to the latest.
6215079	Message Queue Resource Adapter <code>ActivationSpec</code> does not have a configurable username and password
6216762	Support Solaris amd64
6226548	Reconnect interval is ignored while iterating through the address list during failover
6226550	Endless Message Queue failover retry attempts when all hosts in <code>mq-address</code> list are unavailable
6229572	Local/internal consumers forwarded after broker restart-local dsts become nonlocal on restarted bkr
6237112	<code>imq.jar</code> is missing <code>com/sun/messaging/jmq/Version.class</code> .
6240237	<code>WeakValueHashMap</code> does not release memory causing memory leak w/ queue receivers using selectors.
6240568	Broker is leaking memory when new messages on full destination are rejected.
6250207	temp producer and consumer generate exceptions in a cluster.
6252146	Password prompting is broken in <code>imqcmd</code> , <code>imqusermgr</code> .
6252184	producer hang w/unexpected internal error in broker in cluster w/temp destinations & master broker.

[Table 10](#) describes the bugs fixed in Message Queue 3 2005Q4 (3.6 SP3):

Table 10 Fixed Bugs in Message Queue 3 2005Q4 (3.6 SP3)

Bug Number	Description
6256771	imq* scripts print syntax error when used in a file-based installation.
6257306	Application Server does not start after Message Queue upgrade on Linux.
6269126	imqadmin won't start if JavaHelp is not installed.
6271773	Remove installation of shared components from mqinstall/mqupgrade.
6284769	QueueBrowser leaks memory even when a new Browser is created and closed for each enumeration.

Important Information

This section contains the latest information that is not contained in the core product documentation. This section covers the following topics:

- [Installation Notes](#)
- [Compatibility Issues](#)
- [Documentation Updates for Message Queue](#)

Installation Notes

Refer to the *Message Queue Installation Guide* for information about pre-installation instructions, upgrade procedures, and all other information relevant to installing Message Queue, Platform Edition on the Solaris, Linux, and Windows platforms.

Refer to the *Sun Java Enterprise System Installation Guide* for information about pre-installation instructions and all other information relevant to installing Message Queue, Enterprise Edition on the Solaris and Linux platforms.

Refer to the *Sun Java Enterprise System Upgrade and Migration Guide* for information about upgrade and migration instructions relevant to upgrading to Message Queue 3 2005Q1 (3.6) on the Solaris and Linux platforms.

Installing Missing Solaris Packages (Message Queue 3 2005Q1 Enterprise Edition only distribution (subset distribution) with Java Enterprise System Installer)

The Message Queue 3 2005Q1 Enterprise Edition Distribution for Solaris does not include the packages `SUNWt1su` (Network Security Services Utilities) and `SUNWt1sux` (Network Security Services Utilities 64-bit SPARC only).

These packages are necessary only to support SSL C clients. A previous version of these packages may already be installed on your system, but you should update those packages to the version that is included in Java Enterprise System 2005Q1.

Workaround

You can get the version of `SUNWt1su` and `SUNWt1sux` that is included with Java Enterprise System 2005Q1 from the Message Queue 3 2005Q1 Platform Edition bundles at the Sun Java System website. After you download the Message Queue files, follow the instructions in the section “Installing Message Queue” in Chapter 2, “Solaris Installation” of the *Message Queue Installation Guide*. In Step 8, answer n (no) and proceed to Step 9 to install just the `SUNWt1su` and `SUNWt1sux` packages on your system.

Compatibility Issues

This section covers compatibility issues in Message Queue 3 2005Q1 (3.6).

Issues in Message Queue 3 2005Q1 (3.6)

The following sections describe issues that affect: all platforms, Solaris and Linux platforms, and Linux platforms only.

All Platforms

Interface Stability Sun Java System Message Queue uses many interfaces that can help administrators automate tasks. Appendix B in the *Message Queue Administration Guide* classifies the interfaces according to their stability. The more stable an interface is, the less likely it is to change in subsequent versions of the product.

Deprecation of Password Options The following options have been deprecated for security reasons:

- `-p`
- `-password`
- `-dbpassword`
- `-ldappassword`

If a password is specified as a part of a command such as the following:

```
imqcmd query bkr -u admin -p adminpassword
```

a user could see the administrator password while listing or querying a machine's processes (e.g. using `ps` on Solaris).

Use the `-passfile` option instead. The passfile option is explained in the chapter on security in the *Message Queue Administration Guide*.

Solaris and Linux Platforms

JDK 1.3 Client Support The following packages contain jar files used to support JNDI and JSSE for client development and deployment on JDK 1.3. These packages are shipped with Message Queue, Platform Edition only. These packages will not be delivered in a future release. These packages are not installed by default:

- SUNWiqsup--Solaris platform
- sun-mq-sup--Linux platform

For more information on installing packages separately, see the *Message Queue Installation Guide*.

Linux Platforms

This section describes the changes that affect the packages and installed locations on the Linux platform.

New Linux Install Locations The location of Message Queue installation directories has changed for Linux.

NOTE There have been no changes to the location of installation directories between Message Queue 3 2005Q1 (3.6) and Message Queue 3 2005Q4 (3.6 SP3).

[Table 11](#) shows the default installation directories for Message Queue RPMs on Linux

Table 11 Default install locations of Message Queue 3 2005Q1 RPMs

RPM Package Name	Default Install Location
sun-mq-config	/etc/opt/sun
sun-mq-var	/var/opt/sun
all other RPMs	/opt/sun

For more information, see Appendix A, “Operating System-Specific Locations of Message Queue Data,” in the *Message Queue Administration Guide*.

Changed Linux RPM Package Names The names of Message Queue Linux RPM package files have changed.

NOTE There have been no changes in the names of Message Queue Linux RPM package names between the release of Message Queue 3 2005Q1 and Message Queue 3 2005Q4.

[Table 12](#) shows the new names of Message Queue 3 2005Q1 Linux RPM packages.

Table 12 RPM Packages in Linux Bundle

RPM	Description	Notes
sun-mq-config	/etc files	
sun-mq-var	/var files	
sun-mq	/opt files	Depends on sun-javahelp, sun-mq-jmsclient, sun-mq-config, and sun-mq-var
sun-mq-ent	Enterprise Edition license file.	This RPM is only shipped with Message Queue, Enterprise Edition, available with Java Enterprise System.
sun-mq-jaxm	Message Queue Java API for XML Messaging (JAXM): API	Depends on sun-saa-j
sun-mq-jmsclient	JMS: API and runtime	No dependencies
sun-mq-xmlclient	XML Client	Depends on sun-jmsclient and sun-saa-j
sun-mq-capi	C-API	Depends on sun-nspr, sun-nss
sun-mq-compatible	Symlinks to 3.5 locations.	Depends on sun-mq This RPM is not installed by default. Note: This package is only needed if your existing clients depend on Message Queue 3.5 file locations.
sun-mq-sup	Needed to support JDK 1.3.	Depends on sun-mq This RPM is not installed by default. Note: This package is only shipped with Message Queue, Platform Edition.
sun-mq-[locale]	L10N files	

Table 12 RPM Packages in Linux Bundle (*Continued*)

RPM	Description	Notes
sun-javahelp ¹	JavaHelp: API and runtime	Supports JavaHelp viewer for Admin Console help
sun-nss ¹	Network Security Services (NSS) libraries.	Needed to support C language clients
sun-nspr ¹	Netscape Portable Runtime (NSPR) libraries	Needed to support C clients
sun-saaaj ¹	SOAP with Attachments API for Java: API and runtime	Required to support Java clients using SOAP/JAXM API
sun-jaxp ¹	Message Queue Java API for XML Processing (JAXP): API and runtime	Required to support Java clients using SOAP/JAXM API
sun-javamail ¹	JavaMail: API and runtime	Required to support Java clients using SOAP/JAXM API
sun-jaf ¹	JavaBeans Activation Framework: API and runtime	Required to support Java clients using SOAP/JAXM API

1. This RPM package is shared by a number of Sun Java System products. It is supplied with Message Queue, Platform Edition in the distribution, but not supplied with Message Queue, Enterprise Edition.

Symlinks Package for 3.5 Clients The locations of individual files installed as part of Message Queue on Linux have changed. This can break applications that depend on the former location of certain Message Queue files. For instance, if your clients use scripts to locate jar files that were installed with Message Queue 3.5, these clients will no longer locate these files.

To remedy this situation, the Linux package `sun-mq-compat` is included with this release. This package installs symlinks from Message Queue 3.5 file locations to the installed Message Queue 3 2005Q1 (3.6) file locations. This package may not be delivered in future releases. You should fix any scripts that point to former Message Queue file locations.

The `sun-mq-compat` package is in the following locations.

- Message Queue, Platform Edition distribution:
When you unzip the distribution, an `rpms` directory is created.
- Message Queue, Enterprise Edition (delivered with the Java Enterprise System distribution):
`Linux_x86/Product/message_queue/Packages`

► **To install the `sun-mq-compat` package**

1. Become Root.
2. From the rpm package directory, use the following command:

```
rpm -ivh --nodeps sun-mq-compat-3.6-<ReleaseNo>.i386.rpm
```

Issues Related to the Next Major Release of Message Queue

The next major release of Message Queue may introduce changes that make your clients incompatible with that release. This information is provided now to allow you to prepare for these changes.

- This is the last feature release of Sun Java System Message Queue that will be backwards compatible with Sun One Message Queue 3.0.1. In particular, future releases of Sun Java System Message Queue will not support the following:
 - Connection of 3.0.1 clients to brokers of the latest version
 - Upgrading a 3.0.1 persistent store to the latest version
 - Clustering of 3.0.1 brokers with brokers of the latest version
 - Use of 3.0.1 property files, user stores, access control lists, etc. with brokers of the latest version.
- This is the last release of Sun Java System Message Queue that will support being integrated as the “System JMS Messaging Provider” for Sun Java System Application Server 7.X. Future releases of Sun Java System Message Queue will only support Sun Java System Application Server 8.0 and above.
- This is the last release of Sun Java System Message Queue that will include the SOAP runtime and support the Message Queue SOAP Administered Objects.
- Future releases will only support SOAP in conjunction with a Java 2 Standard Edition Platform version that supports SOAP.
- Sun Java System Message Queue client support for all releases of Java 2 Standard Edition 1.3 will be dropped. Java 2 Standard Edition 1.4 will continue to be supported.
- The locations of individual files installed as part of Sun Java System Message Queue might change. This could break existing applications that depend on the current location of certain Message Queue files.
- Sun Java System Message Queue clients that use a version of Message Queue older than the next major version might not have access to the new features offered in that version of the product.

Documentation Updates for Message Queue

The following sections describe the documentation updates for Message Queue 3 2005Q1 (3.6) and Message Queue 3 2005Q4 (3.6 SP3).

- [Documentation Updates for Message Queue 3 2005Q1 \(3.6\)](#)
- [Documentation Updates for Message Queue 3 2005Q4 \(3.6 SP3\)](#)

Documentation Updates for Message Queue 3 2005Q1 (3.6)

The following Message Queue documents were updated from Version 3.5 of the product:

Installation Guide

The *Message Queue Installation Guide* was updated to reflect branding changes and platform-specific information. This document now contains installation information relevant to Message Queue, Platform Edition.

Message Queue, Enterprise Edition installation information moved to the *Sun Java System Installation Guide*.

For information on upgrade and migration to Message Queue 3 2005Q1 (3.6), Enterprise Edition, see the *Sun Java System Upgrade and Migration Guide*.

Technical Overview

The *Message Queue Technical Overview* is a new document that was introduced with the Message Queue 3 2005Q1 (3.6) release. It has been rewritten for the Message Queue 3 2005Q4 (3.6 SP3) release. It describes the Message Queue product, its features, architecture, technology, and terminology. This new book contains overview information previously contained in other books and is meant to be used by Message Queue users--both administrators and developers--and prospective users, as well.

Administration Guide

The *Message Queue Administration Guide* has been updated to reflect branding changes and new features. This document has also been reorganized for better usability by Message Queue administrators. Overview information previously contained in this document has been moved to the *Message Queue Technical Overview*.

Message Queue Developer's Guide for Java Clients

The *Java Client Developer's Guide* has been updated to reflect branding changes and new features. The document has also been renamed to *Message Queue Developer's Guide for Java Clients*.

The *Message Queue Developer's Guide for Java Clients* has been reorganized for better usability by Message Queue Java Client Developers. Overview information previously contained in this document has been moved to the *Message Queue Technical Overview*.

C Client Developer's Guide

The *C Client Developer's Guide* was updated to reflect branding changes and new features. The document has also been renamed to *Message Queue Developer's Guide for C Clients*.

The *Message Queue Developer's Guide for C Clients* has been reorganized for better usability by Message Queue C Client Developers. Overview information previously contained in this document has been moved to the *Message Queue Technical Overview*.

Documentation Updates for Message Queue 3 2005Q4 (3.6 SP3)

The following Message Queue documents were updated from Version 3 2005Q1 (3.6) of the product:

Installation Guide

The *Message Queue Installation Guide* has been updated to reflect changes in the installation of the product introduced since the release of Message Queue 3 2005Q1 (3.6).

Technical Overview

The *Message Queue Technical Overview* is a new document that was introduced with the Message Queue 3 2005Q1 (3.6) release. It has been rewritten for the Message Queue 3 2005Q4 (3.6 SP3) release. It describes the Message Queue product, its features, architecture, technology, and terminology. This new book contains overview information previously contained in other books and is meant to be used by Message Queue users--both administrators and developers--and prospective users, as well.

Administration Guide

The *Message Queue Administration Guide* has been reorganized for better usability by Message Queue administrators. Overview information previously contained in this document has been moved to the *Message Queue Technical Overview*.

Message Queue Developer's Guide for Java Clients

The *Message Queue Developer's Guide for Java Clients* includes a new chapter, "Using the Java API".

Known Issues and Limitations

This section contains a list of the known issues with Message Queue 3 2005Q1 (3.6). The following product areas are covered:

- [General Issues](#)
- [Administration/Configuration Issues](#)
- [Broker Issues](#)

For a list of current bugs, their status, and workarounds, Java Developer Connection™ members should see the Bug Parade page on the Java Developer Connection web site. Please check that page before you report a new bug. Although all Message Queue bugs are not listed, the page is a good starting place if you want to know whether a problem has been reported.

The relevant page is:

<http://developer.java.sun.com/developer/bugParade>

NOTE Java Developer Connection membership is free but requires registration. Details on how to become a Java Developer Connection member are provided on Sun's "For Developers" web page.

To report a new bug or submit a feature request, send mail to imq-feedback@sun.com.

General Issues

This section covers general issues in Message Queue 3 2005Q1 (3.6). Some of these were introduced with previous Message Queue versions. This section groups issues according to whether they apply to both Enterprise and Platform Editions of Message Queue or to the Enterprise Edition only.

Both Enterprise and Platform Editions

- In Message Queue 3 2005Q1, the example broker configuration for using an ldap server as a user repository is provided in the comment area in the `config.properties` file, and the ldap user repository example in the `default.properties` file has been commented out.

If you previously relied on any property value in the example ldap user repository properties setup in the `default.properties` file, your JMS application client will receive a security exception when attempting to create a JMS connection. This will happen after you upgrade to Message Queue 3 2005Q1.

When your JMS client tries to make a connection to the Message Queue 3 2005Q1 broker, you will get a error in the broker log and your JMS client will receive the following exception:

```
SecurityException.
```

```
20/Aug/2004:11:16:41 PDT] ERROR [B4064]: Ldap repository ldap property .uidattr not
defined for authentication type basic:com.sun.messaging.jmq.auth.LoginException:
[B4064]: Ldap repository ldap property .uidattr not defined for authentication type
basic
```

Workaround

Set the broker property `imq.user_repository.ldap.uidattr` following the instructions in the *Message Queue Administration Guide*.

- A bug in RedHat Linux 2.1 (NSS bug number 5078380) can cause the Message Queue C-API `MQCreateConnection` (Message Queue 3 2005Q1 C-API library) or `MQInitializeSSL` (Message Queue 3 2005Q1 or 3.5 C-API library) methods to hang if there is any thread created in the Message Queue C-API application before these two methods get called.

Workaround

When using the Message Queue 3 2005Q1 C-API library, there are four options for avoiding this issue:

- Upgrade to RedHat Linux 3.0
- Set the `MQ_NSS_5078380_WORKAROUND` environment variable before running your Message Queue C client application and set the Message Queue broker property to `imq.authentication.type=basic`
- Call `MQInistializeSSL(<cert-db-path>)` before launching any thread in your Message Queue C client application. You can use the `certutil` utility to create the certificate db files
- Create a connection to the Message Queue broker by calling `MQCreateConnection` before launching any threads You cannot edit a broker's instance configuration file without having started the broker instance at least once. This is because the `config.properties` file does not exist until the broker instance is first started. To configure a broker to use pluggable persistence or to set other configuration properties, run the broker once (with the instance name that should be used to create the broker) to create the `config.properties` file:

Platform	Location
Solaris	/var/imq/instances/ <i>instanceName</i> /props/config.properties
Linux	/var/opt/sun/mq/instances/ <i>instanceName</i> /props/config.properties
Windows	IMQ_VARHOME\instances\ <i>instanceName</i> \props\config.properties

Once the `config.properties` file has been created, edit the file to add any configuration property values and then restart the broker.

Enterprise Edition Only

- Only fully-connected broker clusters are supported in this release. This means that every broker in a cluster must communicate directly with every other broker in the cluster. If you are connecting brokers using the `imqbrokerd -cluster` command line argument, be careful to ensure that all brokers in the cluster are included.
- A client connected to a broker that is part of a cluster cannot currently use `QueueBrowser` to browse queues that are located on remote brokers in that cluster. The client can only browse the contents of queues that are located on the broker to which it is directly connected. The client may still send messages to any queue or consume messages from any queue on any broker in the cluster; the limitation only affects browsing.
- If a Master Broker is not used in a broker cluster, persistent information stored by a broker being added to the cluster is not propagated to other brokers in the cluster.
- A connection service using SSL is currently limited to supporting only self-signed server certificates, that is, host-trusted mode.
- When a JMS client using the HTTP transport terminates abruptly (for example, using `Ctrl-C`) the broker takes approximately one minute before the client connection and all the associated resources are released.

If another instance of the client is started within the one minute period and if it tries to use the same `ClientID`, durable subscription, or queue, it might receive a “Client ID is already in use” exception. This is not a real problem; it is just the side effect of the termination process described above. If the client is started after a delay of approximately one minute, everything should work fine.

Administration/Configuration Issues

The imqadmin and imqobjmgr utilities throw an error when the CLASSPATH contains double quotes on Windows machines (Bug ID 5060769)

Workaround

You can ignore this error message; the broker correctly handles notifying consumers of any error. This error does not affect the reliability of the system.

The -javahome option in all solaris/win scripts does not work if the value has a space (Bug ID 4683029)

The -javahome option is used by the Message Queue commands and utilities to specify an alternate Java 2 compatible runtime to use. However, the path to the alternate Java runtime must be located at a path that does not contain spaces.

Examples of paths that have spaces are:

Windows:

C:\jdk 1.4

Solaris:

/work/java 1.4

Workaround

Install the Java runtime at a location or path that does not contain spaces.

Message Queue output garbage message to syslog in non-C locale (Bug ID 6193884)

Message Queue will send garbage output to the system log when the broker is run in a non-C locale.

Workaround

Run broker in C locale.

Broker Issues

In a broker cluster, a broker will queue messages to a remote connection which may not be started (Bug ID 4951010)

Workaround

The messages will be received by the consumer once the connection is started. The messages will be redelivered to another consumer if the consumer's connection is closed.

HTTPS createQueueConnection occasionally throws exception on Windows 2000. (Bug ID 4953348)

Workaround

Retry the connection.

When using Ctrl-C to shut down broker, transactions may be cleaned up after store is closed (Bug ID 4934446)

The broker may show errors with the following reason "Store method accessed after the store is closed." if the broker is shutdown while messages or transactions are processed.

Workaround

You can ignore this error message; the broker correctly handles notifying consumers of any error. This error does not affect the reliability of the system.

Broker becomes inaccessible when persistent store opens too many destinations. (Bug ID 4953354)

Workaround

This condition is caused by the broker reaching the system open-file descriptor limit. On Solaris and Linux use the ulimit command to increase the file descriptor limit.

Consumers are orphaned when a destination is destroyed (Bug ID 5060787)

Active consumers are orphaned when a destination is destroyed. Once the consumers have been orphaned, they will no longer receive messages (even if the destination is recreated).

Workaround

There is no workaround for this problem.

Message selection using JMSMessageID doesn't work (Bug ID 6196233)

Message selection using the selector "JMSMessageID = '<message_id>'" does not work.

1. Send a message to a Queue
2. Read the JMSMessageID of the sent message - <message_id>
3. Create a consumer on the Queue using the selector set to "JMSMessageID = '<message_id>'"

Message will not be received.

Workaround

Change the selector from:

```
JMSMessageID = "ID:message-id-string"
```

to:

```
JMSMessageID IN ('ID:message-id-string', 'message-id-string')
```

Message Queue QueueBrowser shows uncommitted messages too (Bug ID 6264003)

When browsing the contents of a queue, messages that were produced in a transaction but are not yet committed may appear in the QueueBrowser enumeration.

Workaround

There is no workaround for this problem.

Redistributable Files

Sun Java System Message Queue 3 2005Q1 (3.6) contains the following set of files which you may use and freely distribute in binary form:

- `jms.jar`
- `imq.jar`
- `imqxm.jar`
- `fscontext.jar`
- `providerutil.jar`
- `jndi.jar`
- `ldap.jar`
- `ldapbpjar`
- `jaas.jar`
- `jsse.jar`
- `jnet.jar`
- `jcert.jar`
- In addition, you can also redistribute the `LICENSE` and `COPYRIGHT` files.

Accessibility Features for People With Disabilities

To obtain accessibility features that have been released since the publishing of this media, consult Section 508 product assessments available from Sun upon request to determine which versions are best suited for deploying accessible solutions. Updated versions of applications can be found at: <http://sun.com/software/javaenterprisesystem/get.html>.

For information on Sun's commitment to accessibility, visit <http://sun.com/access>.

How to Report Problems and Provide Feedback

If you have problems with Sun Java System Message Queue, contact Sun customer support using one of the following mechanisms:

- Sun Software Support services online at <http://www.sun.com/service/sunone/software>

This site has links to the Knowledge Base, Online Support Center, and ProductTracker, as well as to maintenance programs and support contact numbers.

- The telephone dispatch number associated with your maintenance contract

So that we can best assist you in resolving problems, please have the following information available when you contact support:

- Description of the problem, including the situation where the problem occurs and its impact on your operation
- Machine type, operating system version, and product version, including any patches and other software that might be affecting the problem
- Detailed steps on the methods you have used to reproduce the problem
- Any error logs or core dumps

Sun Java System Software Forum

There is a Sun Java System Message Queue forum available at the following location:

<http://swforum.sun.com/jive/forum.jspa?forumID=24>

We welcome your participation.

Java Technology Forum

There is a JMS forum in the Java Technology Forums that might be of interest.

<http://forum.java.sun.com>

Sun Welcomes Your Comments

Sun is interested in improving its documentation and welcomes your comments and suggestions.

To share your comments, go to <http://docs.sun.com> and click Send Comments. In the online form, provide the document title and part number. The part number is a seven-digit or nine-digit number that can be found on the title page of the book or at the top of the document. For example, the title of this book is *Sun Java System Message Queue 3 2005Q4 Release Notes*, and the part number is 819-2569-10.

Additional Sun Resources

Useful Sun Java System information can be found at the following Internet locations:

- **Documentation for Message Queue**
<http://docs.sun.com/coll/1307.1>
- **Sun Java System Documentation**
<http://docs.sun.com/prod/java.sys>
- **Sun Java System Professional Services**
<http://www.sun.com/service/sunps/sunone>
- **Sun Java System Software Products and Service**
<http://www.sun.com/software>
- **Sun Java System Software Support Services**
<http://www.sun.com/service/sunone/software>
- **Sun Java System Support and Knowledge Base**
<http://www.sun.com/service/support/software>
- **Sun Support and Training Services**
<http://training.sun.com>
- **Sun Java System Consulting and Professional Services**
<http://www.sun.com/service/sunps/sunone>
- **Sun Java System Developer Information**
<http://developers.sun.com>
- **Sun Developer Support Services**
<http://www.sun.com/developers/support>
- **Sun Java System Software Training**
<http://www.sun.com/software/training>
- **Sun Software Data Sheets**
<http://www.sun.com/software>

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