

Sun Java™ System Message Queue Release Notes for Microsoft Windows

Version 3 2005Q1 (3.6)

Part Number 819-1584-10

These release notes contain important information available at the time of release of Sun Java™ System Message Queue 3 2005Q1 for Windows. 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/MessageQueue_05q1. 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:

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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
February, 2005	Initial release of Sun Java™ System Message Queue Release Notes for Microsoft Windows.
July, 2005	Release of RR version of Sun Java™ System Message Queue Release Notes for Microsoft Windows.

About 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.

What's New in Message Queue 3 2005Q1

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

- [Dead Message Queue](#)
- [No Acknowledge Mode](#)
- [Client Message Body Compression](#)
- [Connection Failure Detection \(Client Runtime Ping\)](#)
- [Support for C-API Basic Authentication](#)
- [Hardware and Software Requirements](#)

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 3.6 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 3.6 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 3.6 2005Q1 introduces a new `ConnectionFactory` attribute named `imqPingInterval`. The `imqPingInterval` 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 3.6 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 3.6 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.

The table below lists hardware and software requirements for Windows operating systems

Table 2 Windows Hardware and Software Requirements

Component	Platform Requirement
Operating System	Windows 2000 Advanced Server, SP4 or above Windows XP Professional Edition SP2
CPU	x86
RAM	256 Mbytes
Disk Space	100 Mbytes

Message Queue 3.6 also depends upon other technologies, as indicated in the table below. The table below lists and describes the basic components that you must install in order to be able to develop and run Message Queue clients.

Table 3 Message Queue 3.6 Basic Product Support Matrix

Platform/Product	Used For	Supported Platform/Product Version
Java Runtime Environment (JRE)	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)
Java Software Development Kit (JDK), Standard Edition	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)

The table below lists and describes the components that you can install to provide additional support for a Message Queue client. You might 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 4 Message Queue 3.6 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 (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"> • Windows: Microsoft Windows Visual C++ 6.0, SP3
NSPR (Netscape Portable Runtime)	Message Queue C client support	Version bundled with Sun Java Enterprise System 2005Q1.
NSS (Network Security Service)	Message Queue C client support	Version bundled with Sun Java Enterprise System 2005Q1

Bugs Fixed in This Release

None.

Important Information

This section covers the following topics:

- [Installation Notes](#)
- [Issues Related to the Next Major Release of Message Queue](#)
- [Compatibility Issues](#)
- [Documentation Updates for Message Queue 3.6 2005Q1 \(3.6\)](#)

Installation Notes

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 Windows platforms.

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 J2SE 1.3 will be dropped. J2SE 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.

Compatibility Issues

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

Issues in Message Queue 3 2005Q1 (3.6)

The following points describe issues that affect Windows platform.

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 sees the administrator password while listing or querying a machine's processes. Use the `-passfile` option instead. The passfile option is explained in the chapter on security in the *Message Queue Administration Guide*.

Documentation Updates for Message Queue 3.6 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 3.6 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 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*.

Java Client Developer's Guide

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*

Known Issues and Limitations

This section describes the known issues and limitations of Message Queue 3 2005Q1 for Windows.

For a list of the known issues and limitations in the component, refer to

<http://docs.sun.com/app/docs/doc/819-0064>

The following component areas are covered:

- [General Issues](#)
- [Installation Issues](#)
- [SSL](#)

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. This section groups issues related to Enterprise Editions of Message Queue.

- Windows platforms set limits to the number of connections to a broker that can be simultaneously started over TCP/IP, in accordance with the maximum value of the backlog size. Backlog is the buffer for connections in the TCP stack. The number of simultaneous TCP connection startups cannot exceed the backlog size. For example, Windows 2000 Professional limits the backlog to 5, and Windows 2000 Server limits the backlog to 200.

- 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
Windows	<code>IMQ_VARHOME\instances\<i>instanceName</i>\props\config.properties</code>

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

- 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 in 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 Client ID, 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.

Installation Issues

Add/Remove Programs control panel displays Sun Java Enterprise System

Add/Remove Programs control panel lists Sun Java Enterprise System instead of Message Queue.

Location of NSS and NSPR libraries has changed.

The location of the NSS and NSPR libraries has changed from previous releases, and the Message Queue "C Client Developer's Guide" may describe these locations incorrectly. These libraries are needed to build C clients and the new location of these libraries is in the 'share\lib' folder.

For example: 'C:\Sun\share\lib' (6271133)

The file Config_MQ.txt contains incorrect information

The file Config_MQ.txt contains incorrect information. The following items correct some of the errors:

- The Quick Config and Config Later options are not available with Message Queue, and there is no option to set the Administrator password at installation time.
- The Configure Automatically option will install and start the MQ Broker Windows service automatically.
- The Configure Manually option allows you to install the MQ Broker without configuring it as a Windows service.

Confusing error message when attempting to install on a disk without sufficient disk space.

When installing on a disk that does not have sufficient disk space, the installation may fail with a confusing error message. For example:

"Error: -1603 Fatal error during installation."

If you get this error message attempt the installation on a disk with sufficient space.

SSL

Message Queue C-API SSL and MQ_SSL_BROKER_IS_TRUSTED.

When using C-API SSL connection, if you set MQ_SSL_BROKER_IS_TRUSTED to MQ_FALSE, you must create the broker certificate with the CN to be the hostname with fully-qualified domain name of the running broker, and specify the MQ_BROKER_HOST_PROPERTY to be the same in your C-API application.

If you don't use fully-qualified domain name, your broker certificate would be rejected with error message SSL_ERROR_BAD_CERT_DOMAIN.

Workaround

None.

Redistributable Files

Sun Java™ System Message Queue 3.6 2005Q1 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`
- `ldapbp.jar`
- `jaas.jar`
- `jsse.jar`
- `jnet.jar`
- `jcrt.jar`
- In addition, you can also redistribute the `LICENSE` and `COPYRIGHT` files.

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

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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 2005Q1 Release Notes for Microsoft Windows, and the part number is 819-1584-10.

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/MessageQueue_05q1
- 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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