



Red Hat AMQ 7.4

AMQ Clients 2.4 Release Notes

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Abstract

These release notes contain the latest information about new features, enhancements, fixes, and issues contained in the AMQ Clients 2.4 release.

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CHAPTER 1. FEATURES

- AMQ Clients 2.4 adds support for RHEL 8 and OpenJDK 11.
- AMQ JMS can now expand environment variables and Java system properties in JNDI configuration properties.
- For improved SSL/TLS performance, AMQ Clients 2.4 now includes an optional library for using native OpenSSL-based SSL/TLS with AMQ JMS.

CHAPTER 2. RESOLVED ISSUES

2.1. AMQ .NET

- [ENTMQCL-794](#) - Transactions do not work with .NET Core

In earlier releases of the product, rolling back transactions when using AMQ .NET on .NET Core did not work as expected.

In this release, transactions on .NET Core function correctly.

2.2. AMQ PYTHON

- [ENTMQCL-483](#) - Selectors fail with non-Unicode strings

In earlier releases of the product, using a non-Unicode string for the **Selector** option on **Container.create_receiver()** could result in a corrupt selector value.

In this release, the library internally converts non-Unicode strings to Unicode.

- [ENTMQCL-498](#) - Unsigned types can hold negative values

In earlier releases of the product, the client allowed setting some unsigned numeric types to negative values, resulting in illegal AMQP data on the wire.

In this release, the unsigned type constructors throw an error if they are given an illegal value.

CHAPTER 3. KNOWN ISSUES

- [ENTMQCL-546](#) - Transactions introduce unexpected link events

Starting a transaction internally opens a sending link for controlling the transaction. This special link can trigger extra application events.

Workaround: Code using transactions should ensure link handler functions are processing the link they expect.

CHAPTER 4. IMPORTANT NOTES

4.1. AMQ C++

- **Unsettled interfaces**

The AMQ C++ messaging API includes classes and methods that are not yet proven and can change in future releases. Be aware that use of these interfaces might require changes to your application code in the future.

These interfaces are marked **Unsettled API** in the API reference. They include the interfaces in the **proton::codec** and **proton::io** namespaces and the following interfaces in the **proton** namespace.

- **listen_handler**
- The **on_sender_drain_start** and **on_sender_drain_finish** methods on **messaging_handler**
- The **draining** and **return_credit** methods on **sender**
- The **draining** and **drain** methods on **receiver**

API elements present in header files but not yet documented are considered unsettled and are subject to change.

- **Deprecated interfaces**

Interfaces marked **Deprecated** in the API reference are scheduled for removal in a future release.

This release deprecates the following interfaces in the **proton** namespace.

- **void_function0** - Use the **work** class or C++11 lambdas instead.
- **default_container** - Use the **container** class instead.
- **url** and **url_error** - Use a third-party URL library instead.

4.2. PREFERRED CLIENTS

In general, AMQ clients that support the AMQP 1.0 standard are preferred for new application development. However, the following exceptions apply:

- If your implementation requires distributed transactions, use the AMQ Core Protocol JMS client.
- If you require MQTT or STOMP in your domain (for IoT applications, for instance), use community-supported MQTT or STOMP clients.

The considerations above do not necessarily apply if you are already using:

- The AMQ OpenWire JMS client (the JMS implementation previously provided in A-MQ 6)
- The AMQ Core Protocol JMS client (the JMS implementation previously provided with HornetQ)

4.3. LEGACY CLIENTS

- **Deprecation of the CMS and NMS APIs**

The ActiveMQ CMS and NMS messaging APIs are deprecated in AMQ 7. It is recommended that users of the CMS API migrate to AMQ C++, and users of the NMS API migrate to AMQ .NET. The CMS and NMS APIs might have reduced functionality in AMQ 7.

- **Deprecation of the legacy AMQ C++ client**

The legacy AMQ C++ client (the C++ client previously provided in MRG Messaging) is deprecated in AMQ 7. It is recommended that users of this API migrate to AMQ C++.

- **The Core API is unsupported**

The Artemis Core API client is not supported. This client is distinct from the AMQ Core Protocol JMS client, which is supported.

4.4. UPSTREAM VERSIONS

- AMQ C++, AMQ Python, and AMQ Ruby are now based on [Qpid Proton 0.28.0](#)
- AMQ JavaScript is now based on [Rhea 1.0.7](#)
- AMQ JMS is now based on [Qpid JMS 0.42.0](#)
- AMQ .NET is now based on [AMQP.Net Lite 2.1.7](#)

CHAPTER 5. IMPORTANT LINKS

- [Red Hat AMQ Supported Configurations](#)
- [Red Hat AMQ 7 Component Details](#)
- [AMQ Clients 2.3 Release Notes](#)
- [AMQ Clients 2.2 Release Notes](#)
- [AMQ Clients 2.1 Release Notes](#)
- [AMQ Clients 2.0 Release Notes](#)
- [AMQ Clients 1.2 Release Notes](#)
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