



## **Red Hat AMQ 7.2**

# **AMQ Interconnect 1.4 Release Notes**

Release Notes for AMQ Interconnect



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## Abstract

These release notes contain the latest information about new features, enhancements, fixes, and issues contained in the AMQ Interconnect 1.4 release.

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## CHAPTER 1. FEATURES

- **ENTMQIC-2149 - Management control for closing an endpoint connection**

AMQ Interconnect 1.4 has been enhanced to allow a remote management controller to close a router's connection to an endpoint. This enables a user to resolve slow or stuck consumer issues in which the consumer is processing too slowly or has stopped processing messages without settling their deliveries.

To close a connection to an endpoint, set the connection's **adminStatus** to **deleted**. For example:

```
$ qdmanage update --type=connection --id=1 adminStatus=deleted
```

In addition, the **allowAdminStatusUpdate** vhost policy user group setting has been added. You can set this attribute to **false** to prevent users from closing connections.

## CHAPTER 2. ENHANCEMENTS

- **ENTMQIC-2146 - Enhanced INFO logging in the router**

Logging at the **INFO** level has been enhanced. You can now track the lifecycle of each router's connections and links.

When a connection is opened, a log entry is created providing you with the following information:

- Unique ID of the connection
- Direction of establishment (in or out)
- Host and port of the remote end of the connection
- Virtual host in use (if the connection is multi-tenant)
- Type of encryption being used
- Type of authentication mechanism being used
- User name for the connection
- Container ID of the peer AMQP container
- Any connection properties supplied by the peer

In addition, you can now trace links by using **INFO** logs. When a link is attached (that is, created), a log entry is created providing you with the following information:

- Unique ID of the link
- Direction of message flow - **in** for messages flowing into the router (from a sender on the endpoint) and **out** for messages flowing out of the router (to a receiver on the endpoint)
- The link's terminus addresses (source and target)

When a link is detached, a log entry is created providing you with the link's terminal statistics, and any error conditions related to the termination of the link.

- **ENTMQIC-2147 - Enhanced metrics available from the router**

AMQ Interconnect now provides several new AMQP link statistics that help you to identify delayed message deliveries and troubleshoot slow consumers.

For each link, the router now reports the following new statistics:

- Global number of delayed settlements
- Rate of delivery settlement
- Indication of "slow status" (a link is identified as "slow" if it has a backlog of undelivered or unsettled deliveries and a low rate of settlement)

You can view these new per-link router statistics by using the **qdstat** tool, the web console, or viewing the router's logs.

- **ENTMQIC-2170 - Optionally enforce access policy on connections established by the router**



When the router opens a connection to an external AMQP container, you can now define policies that restrict the resources that the external container can access on the router. Previously, policies could only be applied to inbound connections. This meant that it was possible for external containers to open links to any address on the router (such as **\$management**, for example).

To define the resources that an external container can access over a connection, you must create a connector policy. For more information, see this [example of a connector policy](#).

## CHAPTER 3. FIXED ISSUES

- **ENTMQIC-2162 - Router crashes when detach from receiver and detach from broker arrive at the same time on a link route**

In previous versions of AMQ Interconnect, a router would crash if it received two opposing detaches on a link route. The crash was due to a race condition from one side detaching the link, and the other side attempting to forward the detach on the detached link. This issue has been fixed to prevent this type of crash from occurring. From now on, if a router receives a detach, it will prevent any other senders or receivers from attempting to forward the detach.

## CHAPTER 4. KNOWN ISSUES

- **ENTMQIC-61 - Memory pools are never returned to heap**

Several heavily used data objects (deliveries, messages, links, buffers, etc.) are managed by AMQ Interconnect in pools for efficient allocation. In AMQ Interconnect 1.1, objects in these pools are not returned to the heap at any time. This means that the memory used in large bursts of activity will not be freed, but will remain available for use thereafter.

This might be observed as an increase in memory usage that does not decrease after a burst of activity is completed. Subsequent bursts of activity will use the same memory that was used previously.

Methods of returning large amounts of pooled objects back to the heap are being developed.

- **ENTMQIC-1980 - Symbolic ports in HTTP listeners do not work**

When configuring a listener in the router with the `http` option enabled (for console or WebSocket access), the `port` attribute must be expressed numerically. Symbolic port names do not work with HTTP listeners.

If a listener is configured as:

```
listener {
  ...
  port: amqp
  http: yes
  ...
}
```

It should be changed to:

```
listener {
  ...
  port: 5672
  http: yes
  ...
}
```

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