

IBM MQ and IBM MQ Appliance firmware V9.1.2 (continuous delivery) is available

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IBM MQ 9.1.2 is the next continuous delivery release of IBM MQ, delivering further incremental updates to MQ. To recap what your MQ and MQ Appliance options are at this point:

- IBM MQ and IBM MQ Appliance 9.1
 - **IBM MQ 9.1 Long Term Support.** Latest available fixpack is 9.1.0.1.
 - **IBM MQ 9.1.2 CD release.** i.e. this release.
 - **IBM MQ 9.1.1 CD release.**
- IBM MQ 9.0 (There is no MQ Appliance 9.0 LTS firmware level)
 - **IBM MQ 9.0 Long Term Support.** Latest available fixpack is 9.0.0.5.
- IBM MQ and IBM MQ Appliance 8.0
 - **IBM MQ 8.0 Long Term Support,** with **End of Support (inc. MQ Appliance firmware) announced for 30th April 2020,** so start thinking about moving to a newer release. Latest available fixpack is 8.0.0.11.

On the MQ Appliance you now have a choice of whether to follow the Long Term Support or Continuous Delivery path for updates. New MQ Appliance M2002 models will ship with the LTS firmware onboard by default, but you can move at any time to the CD firmware if there is function of interest.

Where can I get IBM MQ 9.1.2 from?

MQ 9.1.2 has been delivered concurrently on distributed, z/OS and appliance platforms, and the [IBM MQ on IBM Cloud managed service](#) will be updated in due course. MQ 9.1.2 can be obtained from:

- **Distributed platforms:** [PassportAdvantage](#) for AIX, Linux and Windows platforms (Search for part numbers CJ4TMML for Production use and CJ4SWML for Trial)
- **z/OS:** [shopZ](#) for z/OS. Each PID has a Long Term Support and Continuous Delivery orderable feature.

The MQ for z/OS 9.1.2 PTFs will be available soon. Search for [APAR PH07798](#) for IBM MQ for z/OS, [APAR PH07800](#) for MQ Managed File Transfer for z/OS and [APAR PH07799](#) for MQ Advanced for z/OS Value Unit Edition.

PIDs are:

- 5655-MQ9 – IBM MQ for z/OS
- 5655-VU9 – IBM MQ for z/OS Value Unit Edition
- 5655-AM9 – IBM MQ Advanced Message Security for z/OS

- 5655-MF9 – IBM MQ Managed File Transfer for z/OS
 - 5655-AV9 – IBM MQ Advanced for z/OS
 - This is a bundle of MQ Advanced Message Security and MQ Managed File Transfer (no MQ entitlement included)
 - 5655-AV1 – IBM MQ Advanced for z/OS Value Unit Edition
 - This is a bundle of MQ Advanced Message Security, MQ Managed File Transfer and MQ for z/OS Value Unit Edition
 - **MQ Appliance:** The IBM MQ Appliance firmware image can be obtained from [Fix Central](#) and applied to the M2002, M2001 and M2000 hardware models.
 - **IBM MQ on IBM Cloud:** [IBM MQ on IBM Cloud managed service](#), which has 3 pre-configured queue manager sizes, a Lite (Trial) plan and options for placing the queue manager in an IBM Cloud or AWS data center.
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What's new in MQ 9.1.2?

IBM MQ and MQ Appliance 9.1.2 announcement letters:

- [IBM MQ and MQ Appliance firmware](#)

For our Offering Management perspective head over to [Leif Davidsen's wordpress blog](#)

Updates in this release of IBM MQ include:

- **Uniform Cluster client re-balancing**
This is the first step in what will likely be an ongoing area of interest to enable MQ to scale up and scale down without the need for intervention from application developers or system administrators. The concept is called Uniform Cluster and MQ will ensure applications identified with the same application name are balanced across a set of clustered queue managers. As queue managers are added or removed from a cluster, applications will be re-balanced. This is also useful in maintenance scenarios when a queue manager may be temporarily shut down. Currently this capability is only available to applications built on the C client
- **Improved log throughput on z/OS using zHyperWrite**
Version 9.1.2 adds the ability to use zHyperWrite, when writing to active log data sets that have been configured for synchronous replication. zHyperWrite can speed up IBM MQ log writes by removing some of the time required for the synchronous replication of data.
- **REST messaging performance improvements**
To optimize the performance of the messaging REST API, connections to IBM MQ queue managers are pooled. That is, instead of each REST request creating, using, and destroying its own connection, each REST request uses a connection from a connection pool.
- **Improved scalability and availability with WebSphere® Liberty**
MQ V9.1.2 supports XA coordinated JMS applications running in WebSphere Liberty Profile to connect to one of a set of queue managers. Multiple transaction connections can be workload-balanced across multiple queue managers, removing the requirement for a single queue manager to always be available. This increases the applications ability to scale and to be more highly available while maintaining the global transaction integrity and assured delivery of MQ. WebSphere Liberty 18.0.0.2 or higher is required.
- **Enhanced integration with WebSphere® Liberty**
The MQ V9.1 LTS release allows message delivery to Message Driven Beans (MDB) that run in WebSphere Application Server to be paused in the event of a poisoned

message being detected. This CD release provides the same capability for WebSphere Liberty.

- **MQ Managed File Transfer updates for REST and system administration**
The ability to create a new file transfer is added to the MFT REST API.
The `fteCreateEnvironment` command introduces a new '-n' parameter to correct set up the environment when using the redistributable MQ Managed File Transfer Agent
- **Support for Microsoft .NET Core on Linux**
Version 9.1.1 delivered support for .NET Core for applications in Windows environments. From V9.1.2, IBM MQ supports .NET Core on Linux platforms in addition to Windows platforms.
- **Integration of MQ error logs with MQ Appliance log targets**
The MQ Appliance firmware integrates the MQ queue manager error logs with the system log targets to provide a consolidated logging mechanism for both MQ and system events on the platform. This integration enables MQ queue manager error log information to be streamed to external monitoring tools. The MQ Appliance firmware also includes support for MQ queue manager error logs to be output in JSON format, consistent with other deployment platforms.

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Can I get a copy of IBM MQ for development purposes?



- Yes, you can. A free download to use for development on Windows and Linux x86-64 is available from the [IBM MQ download page](#)
- An IBM MQ Advanced for Developers Docker image is also available on [Docker Store](#) or [Docker Hub](#)

New We have been busy improving the information available to developers, especially those new to IBM MQ. In this latest update we look at [common messaging patterns](#) of put/get, publish/subscribe and request/reply, and have [samples implemented in 5 programming languages](#) that you can mix up to see the patterns in action.

The [LearnMQ](#) site is regularly updated with a mix of tutorials and essential getting started information, and offers you the opportunity to earn an [IBM MQ Developer Essentials badge](#).
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Downloadable resources

A number of MQ components are made available on IBM Fix Central and elsewhere for ease of download. Below are the links to the available components. Where applicable, they will show the latest V9.1 Continuous Delivery (CD) and Long Term Support (LTS) updates for each component. Be sure to know which you require!

- [The IBM MQ Resource Adapter](#) for use with any JEE 7.0 compliant application server
- [IBM MQ redistributable Managed File Transfer Agents](#)
- [IBM MQ C clients](#)
- [IBM MQ Java / JMS client](#)
- [IBM MQ redistributable clients](#)
- [IBM MQ Service Provider for z/OS Connect](#)
- [IBM MQ Appliance firmware update](#)
- [IBM MQ Java client components on Maven](#)
- [IBM MQ on AWS Quick Start](#)
- [IBM MQ Advanced Cloud Paks for IBM Cloud Private \(inc. Red Hat OpenShift\)](#) (entitlement needed)
- ***New*** [IBM MQ Client for macOS \(Development usage only\)](#)

This is a relatively new option for those who want to develop MQ applications on macOS. The client is also used in our LearnMQ tutorials as described above.

Tip: Try opening the links in a private browsing tab if they don't correctly resolve.

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MQ System Requirements and documentation

The system requirements are documented at the links below. IBM MQ 9.1.1 is being made available on z/OS, Microsoft Windows, Linux on x86-64, Linux on IBM z Systems, Linux on Little Endian Power (RHEL, SLES and Ubuntu) and AIX.

- [IBM MQ and IBM MQ for z/OS](#)
- [IBM MQ Appliance](#)

Further information can be found in the [IBM MQ Knowledge Center](#) and the [IBM MQ Appliance Knowledge Center](#)

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