

# AWS Quick Start for IBM MQ

[Jon Tilt](#)

Published on 31/08/2017

At the end of August, IBM and Amazon Web Services announced the first AWS Quick Start to feature an IBM solution.

The Quick Start delivers a simple way of creating a secure, highly available MQ environment, built on AWS services in less than 30 minutes.



What is an AWS Quick Start?

**[AWS Quick Starts](#) help you to deploy popular solutions on the AWS cloud. Each Quick Start is designed by AWS solutions architects or partners, and makes use of AWS best practices for security and high availability. You can use them to create test or production environments, and start using them immediately.**

**The Quick Starts include comprehensive deployment guides and [AWS CloudFormation](#) templates that you can launch with a single click.**



Why have an MQ Quick Start on AWS?

Businesses are now spreading their workloads across public, private and hybrid clouds. Each environment brings different value. Some applications running on premises, others should run in a public cloud. And all these applications should give you the freedom to easily change where they run based on your business needs.

MQ is the ideal solution for providing a highly secure and robust infrastructure in this heterogeneous environment. Allowing applications, systems and services to seamlessly communicate regardless of platform.

Eighteen months ago, we made our first steps onto AWS, producing two blogs to show how MQ could be set up.

- [Basic deployment of MQ on AWS](#)
- [MQ on AWS: PoC of high availability using EFS](#)

These blogs have been extremely popular, receiving nearly 25,000 visits in that time. This, backed up by what we are hearing from our customers, encouraged us to collaborate with AWS to produce our first Quick Start.

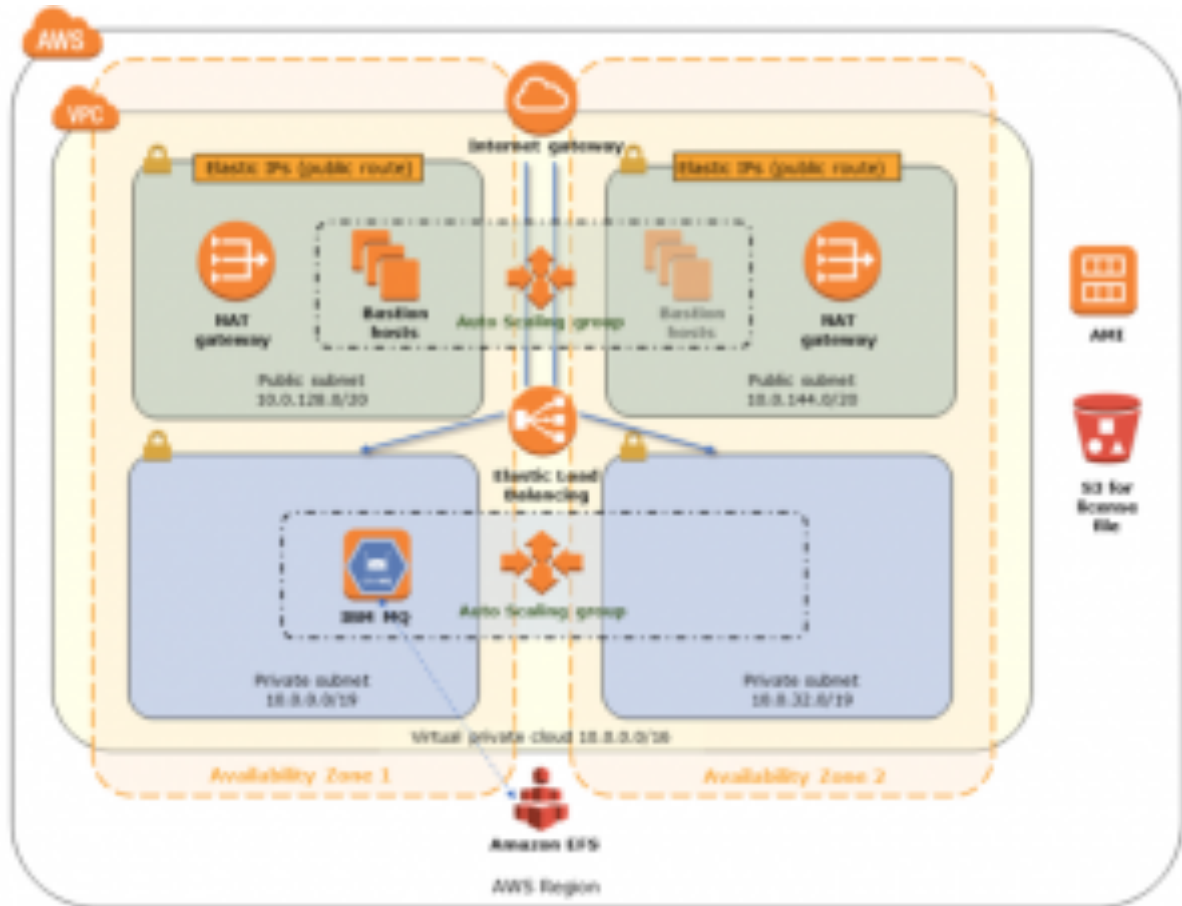
Who is the Quick Start for?

This Quick Start is for IT infrastructure decision makers and IBM MQ system administrators who require guidance on how to rapidly configure, deploy, and run an IBM MQ server on AWS.

Provided you already have an MQ license, then you can build a production environment in under 30 minutes and tailor it to your needs.

If you want to just experiment with MQ in an AWS cloud then IBM provide a 90-day trial license. With the web based MQ console there's nothing extra you'll need to get going.

What does the Quick Start give me?



With a single click, you can deploy a reference architecture of a highly available, secure IBM MQ version 9 queue manager in an existing or new VPC.

<="" h2="">

At its core, the topology provides an MQ v9 queue manager, running on Ubuntu. The server is built using a public AMI that will be upgraded each time the continuous delivery version of MQ is delivered or when critical fixes are required for MQ or the OS.

## Security

The MQ server is hosted within a private subnet, the only ways to access it are through two ports exposed by a public facing elastic load balancer (ELB) or, if you need to SSH to the host, via a Bastion server from the public subnet.

The two exposed ports are:

- 9443 for the web based MQ console
- 1414 for client/channel access

Both ports and the Bastion server can be restricted to allow only a certain IP range.

## Availability

High availability is achieved by using standard AWS services.

### Availability Zones (AZ)

Each AWS region provides a number of isolated locations known as Availability Zones, connected via low-latency links, so that workloads can be quickly moved in the event of outages. This Quick Start requires two AZs.

### Elastic File System (EFS)

Simple, scalable storage that can be shared across AZs. All the queue manager data is stored on EFS, so in the event of a server or AZ failure a new queue manager can attach to it, ensuring no message loss.

### Elastic Load Balancer

The load balancer provides the only access point to the queue manager via a single IP address. Even when the MQ server is moved, the ELB knows its new location ensuring minimal impact on the client.

### Auto Scaling Groups (ASG)

The ASG helps maintain application availability by adhering to a policy. In the Quick Start we tell the ASG that there must always be one MQ server running at all times. It constantly monitors the health of the queue manager and if it detects any problems it automatically spins up a new server. This typically takes about 3 to 5 minutes for the failover to complete, depending on the state of the queues at failure time.

## Verification

MQ v9 provides an ‘out of the box’ administration experience through the IBM MQ Console. The Quick Start allows you to define the console user and password and the URL is returned when the Quick Start stack is created.



Key	Value	Description
HealthUrl	<a href="https://aws.amazon.com/quickstart/ibmq/v9/mq/">https://aws.amazon.com/quickstart/ibmq/v9/mq/</a>	For more information and details visit
MQConsoleURL	<a href="https://1001-mq-quickstart-46-047-2007871834-us-east-1-46-46462-aws.com/34-02/console/console/">https://1001-mq-quickstart-46-047-2007871834-us-east-1-46-46462-aws.com/34-02/console/console/</a>	URL for Elastic Load Balancer to connect to MQ Console
MQQueueURL	<a href="https://1001-mq-quickstart-46-047-2007871834-us-east-1-46-46462-aws.com/34-02/queue/queue/">https://1001-mq-quickstart-46-047-2007871834-us-east-1-46-46462-aws.com/34-02/queue/queue/</a>	URL for Elastic Load Balancer to connect to REST API

Retrieve the MQ Console URL from the stack output

## IBM MQ Console - Login

Please enter your username and password

User Name:

Password:

Please note that after some time you will be signed out automatically and asked to sign in again

Licensed Materials - Property of IBM Corp. (c) Copyright IBM Corporation and its licensors 2014, 2017. The IBM logo is a registered trademark of International Business Machines Corporation in the United States, other countries, or both. Other company, product or services names may be trademarks or services of others.

Sign on to the console using the user and password you created

Name	Status
QM1	Running

Verify that the queue manager is running

With the queue manager running you can now verify the installation by creating objects and putting messages on the predefined queues.

What next?

Head over to the [AWS Quick Starts page](#) and create your own MQ environment. Remember you will be charged for the AWS resources you use.