

# Cloud Q Quick Start

## Deploying in a VPC on AWS with no Internet Access

Dack Busch/Gokul Kuppuraj, Jan 14th, 2021

### Overview

The Quick Start templates expect a NAT Gateway in the existing VPC chosen. However, it is possible to use the existing VPC with the advanced template to deploy without internet access.

To support deployments without public internet connectivity the VPC must be configured with:

- VPC Interface Endpoints to support AWS services
- A security group applied to each VPC Interface Endpoint
- A Gateway VPC Endpoint for S3 access
- The code for the Quick Start must be downloaded from GitHub and be placed in your own bucket
- If software upgrades are to be performed by the template then Qumulo Core software images must be placed in the /upgrade folder within the bucket in the Qumulo Trends file naming convention.

### VPC Interface Endpoints

It is recommended to leave the policy for each endpoint as Full Access. The following VPC Interface Endpoints must be configured when deploying without internet Access:

Endpoint Interface Service	Required for Production	Deployment/Stack Update
cloudformation		✓
ec2	✓	✓
events	✓	✓
kms	✓	✓
lambda	✓	✓
logs	✓	✓
monitoring	✓	✓
profile	✓	✓
S3 (gateway endpoint)	✓	✓
secretsmanager		✓
Sns (if using notifications)	✓	✓
ssm		✓
sts	✓	✓



## VPC Interface Endpoints Security Group rules

To allow traffic from the provisioning node and the Qumulo cluster the security group applied to the VPC interface endpoints must have the following Security Groups added as Inbound Rule Sources:

- [stack name]-PROVISIONINGSTACK-[aws 12 digit code]-**ProvisionerSG**-[aws 12 digit code]
- [stack name]-QSTACK-[aws 12 digit code]-**QumuloSecurityGroup**-[aws 12 digit code]

## Automated Qumulo Core upgrades during deployment

If you enter a newer software version than the Qumulo Core AMI was released with, the provisioning instance will expect to find the code via the internet, or in this case from the S3 bucket. Since the provisioning instance will not be able to reach the public internet, it will look for code in the template's S3 bucket at the following prefix: [your prefix]/upgrade/. Typically this is quickstart-qumulo-cloud-q-main/upgrade/. All quarterly released images between the AMI ID release version to, and including, the requested version must be present in the bucket. For example, if the AMI was released with 4.0.6 and the desired version is 4.2.3, then 4.1.0.1, 4.2.0, and 4.2.3 versions must be in the bucket. If the software images are not present in the S3 bucket the Provisioning instance will not shutdown, nor will it progress with provisioning activities. To see the quarterly release cadence just cat the file [your prefix]/cfn-init/upgrade-order.txt. Place the image(s) in the bucket and restart the provisioning instance if this occurs. The image(s) must be in the Qumulo Trends format: **qumulo\_upgrade\_cloud\_x.y.z.qimg**. If you have downloaded Qumulo .img files from Box.com just rename them to the Qumulo Trends format and place them in your S3 bucket.

