# **MQ SERVER INSTALLATION**

#### **Required Libraries and Packages**

Install the following essential libraries and tools:

#### **Update the package index first:**

\$sudo yum update -y

#### *Install required dependencies:*

\$sudo yum install gcc gcc-c++ libstdc++ glibc compat-libstdc++ libgcc libaio

These packages ensure the proper functioning of IBM MQ on CentOS.

If you plan to use Java-based features (e.g., JMS or web console), install a supported Java *Runtime Environment (JRE):* 

\$sudo yum install java-1.8.0-openjdk

#### Firewall:

Stop the Firewall Service Immediately

\$ sudo systemctl stop firewalld

Disable the Firewall Service at Boot

\$ sudo systemctl disable firewalld

Mask the Firewall Service (Optional) Masking prevents the service from being started manually or by other services:

\$ sudo systemctl mask firewalld

Verify the Firewall is Disabled

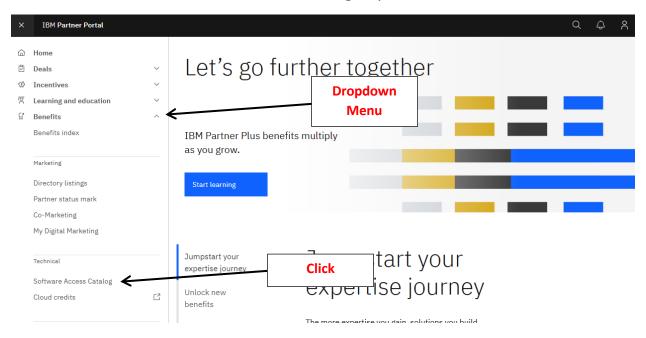
Check the status:

\$ sudo systemctl status firewalld

Ensure it is not active or enabled at boot.

# Step 1: Access the IBM Partner Plus Software Catalog

- 1. Navigate to the **IBM Partner Plus** website.
- 2. Log in to your account using your credentials.
- 3. After logging in, locate and click on the Benefits tab.
- 4. Under the Benefits section, select Technical.
- 5. Click on Software Access Catalog to proceed.

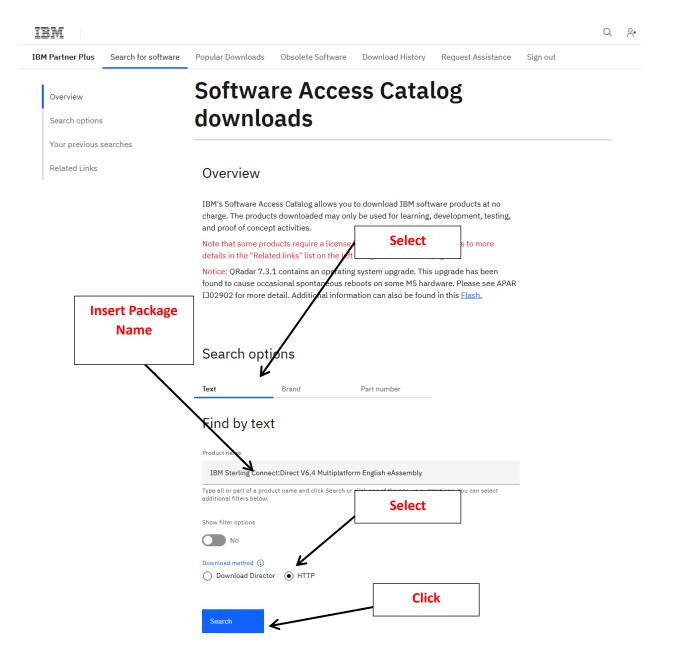


# **Step 2: Search for and Download the Software Package**

After proceeding to the Software Access Catalog, you have two options to find the desired package:

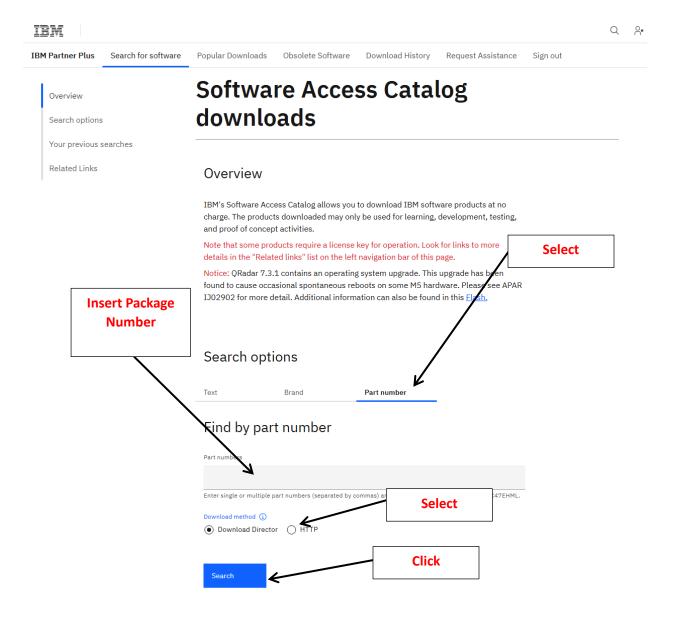
# 1. By Package Name:

- 1. Enter the package name in the text box provided.
- 2. Select the HTTP option.
- 3. Click on Search to locate the package.



# 2. By Part Number:

- 1. Enter the part number in the text box provided.
- 2. Select the HTTP option.
- 3. Click on Search to locate the package.



# 3. Once the package appears in the search results:

- 1. Select the package you want to install.
- 2. Scroll down and review the license agreement.
- 3. Select Agree and click on Download Now.

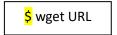
4. The download will begin immediately.

### Step 3: Download the File Using wget in CentOS

- 1. Once the file starts downloading, go to your browser's download history.
- 2. Locate the file and copy its download link by:
  - Left-click on the pin icon.

# Selecting Copy Link or a similar option depending on your browser

- 1. Open a terminal in CentOS and navigate to the desired directory where you want to download the file.
- Use the <u>wget</u> command with the copied <u>URL</u> to download the file. For example:



3. The file will be downloaded to your CentOS system.

```
[MO@work MD]$ wget https://ak-dsw-mul.dhe.ibm.com/sdfdl/v2/fulfill/M9987ML/Xa.2/Xb.ll8YenSwxvESvd6Ijjosxycj@aKqtis1CBabAJQ/Xc.N0987ML/IBM MD_9.2.0.7_UBUNTU_IBM_Z.tar.gz/Xd./
Xf.lPr.D1Wk/Xg.13159156/Xi./XY.sm/XZ.WDhwB7X6inV7im56zolyliw5CoClVkZN/IBM MD_9.2.0.7_UBUNTU_IBM_Z.tar.gz
z/Xd./Xf.lPr.D1Wk/Xg.13159156/Xi./XY.sm/XZ.WDhwB7X6inV7im56zolyliw5CoClVkZN/IBM MD_9.2.0.7_UBUNTU_IBM_Z.tar.gz
z/Xd./Xf.lPr.D1Wk/Xg.13159156/Xi./XY.sm/XZ.WDhwB7X6inV7im56zolyliw5CoClVkZN/IBM MD_9.2.0.7_UBUNTU_IBM_Z.tar.gz
Resolving ak-dsw-mul.dhe.ibm.com (ak-dsw-mul.dhe.ibm.com)....170.225.119.173
Connecting to ak-dsw-mul.dhe.ibm.com (ak-dsw-mul.dhe.ibm.com)|170.225.119.173|:443... connected.
HTTP request sent, awatting response... 260 0K
Length: 802948095 (766M) [application/octet-stream]
Saving to: 'IBM_MD_9.2.0.7_UBUNTU_IBM_Z.tar.gz'

IBM_MD_9.2.0.7_UBUNTU_IBM_Z.tar.gz

100%_crk_MD]$ Ls

IBM_MD_9.2.0.7_UBUNTU_IBM_Z.tar.gz

100%_ork_MD]$ Ls

IBM_MD_9.2.0.7_UBUNTU_IBM_Z.tar.gz
```

### **Step 4: Extract the Downloaded File**

1. Verify the file is present in your directory by using the ls command:



2. Extract the .tar file using the following command:

```
<mark>$</mark> tar-xvf <file name>
```

3. The contents of the file will be unpacked into the current directory. You can confirm the extraction by listing the files again:



4. You are now ready to proceed with the installation or setup of the extracted files.

```
[MQ@work MQ]$ ls
IBM_MQ_9.2.0.7_UBUNTU_IBM_Z.tar.gz
[MQ@work MQ]$ tar -xvf IBM_MQ_9.2.0.7_UBUNTU_IBM_Z.tar.gz
MQServer/
MQServer/mqlicense.sh
```

```
[root@work MQ]# ls
9.4.0.5-IBM-MQ-LinuxX64.tar.gz
                                MQServer
[root@work MQ]# cd MQServer/
[root@work MQServer]# ls
Advanced
                                      MQSeriesMsg es-9.4.0-5.x86 64.rpm
copyright
                                      MQSeriesMsg fr-9.4.0-5.x86 64.rpm
crtmapka
                                      MQSeriesMsg hu-9.4.0-5.x86 64.rpm
IBM-MQ.repo
                                      MQSeriesMsg it-9.4.0-5.x86 64.rpm
                                      MQSeriesMsg ja-9.4.0-5.x86 64.rpm
lap
licenses
                                      MQSeriesMsg ko-9.4.0-5.x86 64.rpm
mglicense.sh
                                      MQSeriesMsg pl-9.4.0-5.x86 64.rpm
MQSeriesAMQP-9.4.0-5.x86_64.rpm
                                      MQSeriesMsg_pt-9.4.0-5.x86_64.rpm
                                      MQSeriesMsg ru-9.4.0-5.x86 64.rpm
MQSeriesAMS-9.4.0-5.x86 64.rpm
                                      MQSeriesMsg Zh CN-9.4.0-5.x86 64.rpm
MQSeriesClient-9.4.0-5.x86 64.rpm
MQSeriesFTAgent-9.4.0-5.x86_64.rpm
                                      MQSeriesMsg Zh TW-9.4.0-5.x86 64.rpm
MQSeriesFTBase-9.4.0-5.x86 64.rpm
                                      MQSeriesRuntime-9.4.0-5.x86 64.rpm
MQSeriesFTLogger-9.4.0-5.x86 64.rpm
                                      MQSeriesSamples-9.4.0-5.x86 64.rpm
                                      MQSeriesSDK-9.4.0-5.x86 64.rpm
MQSeriesFTService-9.4.0-5.x86 64.rpm
MQSeriesFTTools-9.4.0-5.x86 64.rpm
                                      MQSeriesServer-9.4.0-5.x86 64.rpm
                                      MQSeriesWeb-9.4.0-5.x86 64.rpm
MQSeriesGSKit-9.4.0-5.x86 64.rpm
MQSeriesJava-9.4.0-5.x86 64.rpm
                                      MQSeriesXRService-9.4.0-5.x86 64.rpm
MQSeriesJRE-9.4.0-5.x86 64.rpm
                                      READMES
MQSeriesMan-9.4.0-5.x86 64.rpm
                                      repackage
MQSeriesMsg_cs-9.4.0-5.x86_64.rpm
                                      repodata
MQSeriesMsg de-9.4.0-5.x86 64.rpm
```

#### **Step 5: Install Additional Required Components**

Install the following RPMs in the given order to ensure proper functionality:

#### 2.1 Install IBM MQ GSKit (Global Security Kit):

\$sudo rpm -ivh MQSeriesGSKit-9.4.0-5.x86\_64.rpm

#### 2.2 Install IBM MQ SDK (Optional for Developers):

\$sudo rpm -ivh MQSeriesSDK-9.4.0-5.x86 64.rpm

#### 2.3 Install IBM MQ Java and JRE Support:

\$sudo rpm -ivh MQSeriesJava-9.4.0-5.x86\_64.rpm

\$sudo rpm -ivh MQSeriesJRE-9.4.0-5.x86\_64.rpm

#### 2.4 Install IBM MQ Server:

\$sudo rpm -ivh MQSeriesServer-9.4.0-5.x86\_64.rpm

#### **Step 6: Accept the License Agreement**

Before using IBM MQ, you must accept the license agreement.

- 1. Run the license script:
- 2. \$/opt/mgm/bin/mglicense -accept
- 3. Follow the prompts to accept the license agreement.

#### **Step 7: Verify Installation**

After installation, verify that all components are installed correctly.

- 1. Check the list of installed packages:
- 2. \$rpm -qa | grep MQSeries
- 3. Verify the installation log for warnings or errors:
- 4. \$cat /tmp/mqconfig.\*.log

#### Step 8: Configure IBM MQ

#### 5.1 Create the MQM User and Group (Automatically Created):

During installation, the mqm group and user are created. Confirm with:

id mgm

#### 5.2 Create a Queue Manager:

/opt/mqm/bin/crtmqm QM1

This creates a queue manager named QM1.

### **5.3 Start the Queue Manager:**

/opt/mqm/bin/strmqm QM1

### **5.4 Verify the Queue Manager:**

/opt/mqm/bin/dspmq

You should see the queue manager QM1 in a running state.

#### References

- IBM MQ Documentation
- IBM MQ Code Signatures

For additional support, consult the official IBM MQ documentation or contact IBM support.