A Comprehensive guide for upgrading to mule 4.6 and java 17:

<https://help.salesforce.com/s/articleView?id=002139151&type=1>

For Java Update (30-45 mins)

**JDK**:

* Check for the installed packages

sudo yum list installed “java\*”

* If java 17 is installed, then switch to it.

sudo alternatives --config java

* Check for java 17 available with the package lib

sudo yum list available "java\*"

* If it exists. Then update using

*sudo yum update j*ava-17-openjdk

* Check both java and javac version

If you want to install using archive, then follow below link:

<https://docs.redhat.com/en/documentation/red_hat_build_of_openjdk/17/html-single/installing_and_using_red_hat_build_of_openjdk_17_on_rhel/index#installing-jdk11-on-rhel-using-archive_openjdk>

For changes to be made for the mule follow the article:

<https://help.salesforce.com/s/articleView?id=001114832&type=1>

**Note**: if your API has apps, connectors running custom Java code require additional work to certify those components. Before you upgrade your integration apps or Mule Gateway policies and proxies to Java 17, you must update all extensions, modules, and connectors used within those apps and policies to Java 17. **Go through the first link (Comprehensive guide)**

**For Mule Runtime Update (60-75 mins)/server**

To upgrade the Mule Runtime Version in a Runtime Manager Server Group, designed for someone new to the process:

### **Step 1: Access Anypoint Runtime Manager**

1. Open your web browser and navigate to [Anypoint Platform](https://anypoint.mulesoft.com).
2. Log in with your credentials.
3. Once logged in, from the Anypoint Platform homepage, click on the "Runtime Manager" tile.

### **Step 2: Switch to the Correct Environment**

1. At the top of the Runtime Manager interface, you'll see a dropdown menu labeled "Environment."
2. Click this dropdown and select the environment where the server group you wish to update is located (e.g., Development, QA, Production).

### **Step 3: Navigate to Servers**

1. On the left-hand side, you’ll see a navigation menu. Click on "Servers" to view the list of servers and server groups.
2. In the list of servers, locate and select the server group that you want to update.

### **Step 4: Access the Server Group Dashboard**

1. After selecting the server group, the server group’s dashboard will appear.
2. In this dashboard, click on the "Servers" tab to display all the servers that belong to this group.

### **Step 5: Shutdown Each Server**

1. Select the first server you wish to upgrade by clicking on it.
2. A detailed view of the server will open. Look for the "Actions" dropdown menu.
3. Click on "Actions," and select "Shutdown."
4. Wait for the server to completely shut down.
5. Repeat this process for each server in the server group. Ensure all servers are fully shut down before proceeding.

### **Step 6: Upgrade the Runtime Manager Agent (If Necessary)**

1. Open a terminal on the machine hosting your Mule instance.
2. Check the current Runtime Manager agent version. If it’s earlier than version 2.2.0, you must upgrade it.
3. To upgrade, navigate to the current Mule Home directory using the terminal:

cd ${MULE-4.1.5\_HOME}/bin

1. Download the latest agent setup file from the MuleSoft website and copy it to the current directory:  
     
   cp ~/Downloads/agent-setup-2.4.20.zip .
2. Unzip the downloaded file:  
     
   unzip agent-setup-2.4.20.zip
3. Run the upgrade command:  
     
   ./amc\_setup -U

### **Step 7: Install the New Mule Runtime Version**

1. Navigate to the directory where you want to install the new Mule runtime version:  
     
   cd ${MULE-4.3.0\_DIRECTORY}
2. Copy the new Mule runtime zip file to the target directory:  
     
   cp ~/Downloads/mule-ee-distribution-standalone-4.3.0.zip .
3. Unzip the Mule runtime file:  
     
   unzip mule-ee-distribution-standalone-4.3.0.zip

### **Step 8: Install the Latest Agent Version**

1. Navigate to the bin directory of the new Mule runtime:  
     
   cd mule-enterprise-standalone-4.3.0/bin
2. Copy the agent setup zip file to this directory:

cp ~/Downloads/agent-setup-2.4.20.zip .

1. Unzip the file:

unzip agent-setup-2.4.20.zip

1. Install the agent:  
     
   ./amc\_setup -I
2. Remove the old mule-agent.yml file to avoid conflicts:

rm ../conf/mule-agent.yml

### **Step 9: Copy Configuration Files**

1. Navigate to the /conf directory in the old Mule runtime installation.
2. Copy all YAML files (\*.yml) and keystore files (\*.jks) to the /conf directory in the new Mule runtime installation.  
   Example commands:  
   cp ${MULE-4.1.5\_HOME}/conf/\*.yml ${MULE-4.3.0\_HOME}/conf/

cp ${MULE-4.1.5\_HOME}/conf/\*.jks ${MULE-4.3.0\_HOME}/conf/

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### **Step 10: Verify DNS Configuration in mule-agent.yml**

1. Open the mule-agent.yml file located in the /conf directory of the new Mule runtime installation.
2. Ensure that the DNS values are configured as follows:

websocket.transport:

consoleUri: wss://runtime-manager.anypoint.mulesoft.com:443/mule

authenticationProxy:

endpoint: https://data-authenticator.anypoint.mulesoft.com

1. If any values are missing or incorrect, edit the file to match the required configuration.

### **Step 11: Copy Domain Files (If Applicable)**

1. If you have domains installed in the old Mule instance, copy them to the new Mule instance:  
     
   cp -R ${MULE-4.1.5\_HOME}/domains ${MULE-4.3.0\_HOME}/domains

### **Step 12: Start the New Mule Instance**

1. Navigate to the bin directory of the new Mule runtime:

cd ${MULE-4.3.0\_HOME}/bin

1. Start the Mule instance:  
     
   ./mule start

### **Step 13: Confirm Deployment in Runtime Manager**

1. Go back to Anypoint Runtime Manager.
2. Check the "Servers" tab to confirm that all servers in the server group are up and running.
3. Ensure that all your Mule applications are deployed and displayed as "Running."