

Check the Service Unit File Apache Tomcat 8.5

The error message indicates that the Tomcat service failed to start due to an issue with the `startup.sh` script, which is resulting in an exit code of 203. The service is also trying to restart too quickly and failing repeatedly.

Here are the steps to troubleshoot and resolve this issue:

1. Check the Service Unit File

First, ensure that the `tomcat.service` file is correctly configured. The file is typically located at `/etc/systemd/system/tomcat.service`. It should look something like this:

```
ini
Copy code
[Unit]
Description=Apache Tomcat Web Application Container
After=network.target

[Service]
Type=forking

User=tomcat
Group=tomcat

Environment="JAVA_HOME=/usr/lib/jvm/java-8-openjdk-amd64"
Environment="CATALINA_PID=/opt/tomcat/temp/tomcat.pid"
Environment="CATALINA_HOME=/opt/tomcat"
Environment="CATALINA_BASE=/opt/tomcat"
Environment="CATALINA_OPTS=-Xms512M -Xmx1024M -server -XX:+UseParallelGC"
Environment="JAVA_OPTS=-Djava.awt.headless=true -Djava.security.egd=file:/dev/./urandom"

ExecStart=/opt/tomcat/bin/startup.sh
ExecStop=/opt/tomcat/bin/shutdown.sh

Restart=on-failure

[Install]
WantedBy=multi-user.target
```

2. Verify Permissions

Ensure that the `startup.sh` and `shutdown.sh` scripts have the correct permissions:

```
sh
Copy code
sudo chmod +x /opt/tomcat/bin/startup.sh
sudo chmod +x /opt/tomcat/bin/shutdown.sh
```

Also, ensure the `tomcat` user has the necessary permissions to the Tomcat installation directory:

```
sh
Copy code
```

```
sudo chown -R tomcat:tomcat /opt/tomcat
```

3. Check the Logs

Examine the Tomcat logs for more details on why it's failing to start. Logs are typically located in `/opt/tomcat/logs/`:

```
sh
Copy code
tail -n 100 /opt/tomcat/logs/catalina.out
```

4. Verify JAVA_HOME

Ensure that the `JAVA_HOME` environment variable is correctly set in the service unit file. Verify that Java is correctly installed and the path is correct:

```
sh
Copy code
echo $JAVA_HOME
/usr/lib/jvm/java-8-openjdk-amd64/bin/java -version
```

5. Reload and Start the Service

After making the necessary changes, reload the systemd configuration and start the Tomcat service:

```
sh
Copy code
sudo systemctl daemon-reload
sudo systemctl start tomcat.service
sudo systemctl status tomcat.service
```

Example of Step-by-Step Commands

Here is a series of commands to perform the steps outlined above:

```
sh
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# Check and edit the service file
sudo nano /etc/systemd/system/tomcat.service

# Ensure startup and shutdown scripts are executable
sudo chmod +x /opt/tomcat/bin/startup.sh
sudo chmod +x /opt/tomcat/bin/shutdown.sh

# Ensure the tomcat user has the necessary permissions
sudo chown -R tomcat:tomcat /opt/tomcat

# Check the Tomcat logs for errors
tail -n 100 /opt/tomcat/logs/catalina.out

# Verify JAVA_HOME and Java installation
echo $JAVA_HOME
/usr/lib/jvm/java-8-openjdk-amd64/bin/java -version
```

```
# Reload systemd and start the Tomcat service
sudo systemctl daemon-reload
sudo systemctl start tomcat.service
sudo systemctl status tomcat.service
```

If after these steps the issue persists, the logs should provide more specific information that can guide further troubleshooting.

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how to uninstall apache tomcat 8.5 and java with command and example ?
ChatGPT

To uninstall Apache Tomcat 8.5 and Java from a Linux system, you can follow these steps. The specific commands may vary depending on your Linux distribution, but I'll provide examples for both Debian-based (like Ubuntu) and Red Hat-based (like CentOS) systems.

Uninstalling Apache Tomcat 8.5

For Debian-based Systems (Ubuntu):

1. Stop the Tomcat Service:

```
sh
Copy code
sudo systemctl stop tomcat.service
```

2. Disable the Tomcat Service:

```
sh
Copy code
sudo systemctl disable tomcat.service
```

3. Remove the Tomcat Directory:

```
sh
Copy code
sudo rm -rf /opt/tomcat
```

4. Remove the Tomcat Service File:

```
sh
Copy code
sudo rm /etc/systemd/system/tomcat.service
```

5. Reload the Systemd Daemon:

```
sh
Copy code
sudo systemctl daemon-reload
```

For Red Hat-based Systems (CentOS):

The steps are similar:

1. Stop the Tomcat Service:

```
sh
Copy code
sudo systemctl stop tomcat.service
```

2. Disable the Tomcat Service:

```
sh
Copy code
sudo systemctl disable tomcat.service
```

3. Remove the Tomcat Directory:

```
sh
Copy code
sudo rm -rf /opt/tomcat
```

4. Remove the Tomcat Service File:

```
sh
Copy code
sudo rm /etc/systemd/system/tomcat.service
```

5. Reload the Systemd Daemon:

```
sh
Copy code
sudo systemctl daemon-reload
```

Uninstalling Java

For Debian-based Systems (Ubuntu):

1. List Installed Java Packages:

```
sh
Copy code
dpkg --get-architecture | grep -i jdk
```

2. Uninstall Java:

```
sh
Copy code
sudo apt-get remove --purge openjdk-8-jdk
sudo apt-get remove --purge openjdk-8-jre
```

3. Remove Unused Packages and Clean Up:

```
sh
Copy code
sudo apt-get autoremove
sudo apt-get clean
```

For Red Hat-based Systems (CentOS):

1. List Installed Java Packages:

```
sh
Copy code
rpm -qa | grep -i jdk
```

2. Uninstall Java:

```
sh
Copy code
sudo yum remove java-1.8.0-openjdk
sudo yum remove java-1.8.0-openjdk-devel
```

3. Remove Unused Packages and Clean Up:

```
sh
Copy code
sudo yum autoremove
sudo yum clean all
```

Example Commands for Ubuntu

Here's a consolidated example for Ubuntu:

```
sh
Copy code
# Stop and disable Tomcat service
sudo systemctl stop tomcat.service
sudo systemctl disable tomcat.service

# Remove Tomcat directory and service file
sudo rm -rf /opt/tomcat
sudo rm /etc/systemd/system/tomcat.service

# Reload systemd daemon
sudo systemctl daemon-reload

# List installed Java packages
dpkg --get-selections | grep -i jdk

# Uninstall Java
sudo apt-get remove --purge openjdk-8-jdk
sudo apt-get remove --purge openjdk-8-jre

# Remove unused packages and clean up
sudo apt-get autoremove
sudo apt-get clean
```

Example Commands for CentOS

Here's a consolidated example for CentOS:

```
sh
Copy code
```

```
# Stop and disable Tomcat service
sudo systemctl stop tomcat.service
sudo systemctl disable tomcat.service

# Remove Tomcat directory and service file
sudo rm -rf /opt/tomcat
sudo rm /etc/systemd/system/tomcat.service

# Reload systemd daemon
sudo systemctl daemon-reload

# List installed Java packages
rpm -qa | grep -i jdk

# Uninstall Java
sudo yum remove java-1.8.0-openjdk
sudo yum remove java-1.8.0-openjdk-devel

# Remove unused packages and clean up
sudo yum autoremove
sudo yum clean all
```

These steps should help you completely uninstall Apache Tomcat 8.5 and Java from your system.