

FICHE DE PROCEDURE

Installation de Apache Guacamole



Installation manuelle sous Debian 12, avec une DB MariaDB/MySQL

Prérequis

- Une distribution Linux relativement récente, cependant celle-ci doit-être compatible avec Tomcat VERSION 9, Guacamole dans sa version stable n'étant pas encore compatible avec la version 10.
- Un serveur de base de données (dans ce cas MariaDB/MySQL: `mariadb-server`)
- Java (`openjdk-17-jdk`)
- Les paquets de développement (Debian): `libcairo2-dev`, `libjpeg62-turbo-dev`, `libpng-dev`, `libtool-bin`, `uuid-dev`, `libssh2-1-dev`, `libavcodec-dev`, `libavformat-dev`, `libavutil-dev`, `libswscale-dev`, `freerdp2-dev`, `libpango1.0-dev`, `libssh2-1-dev`, `libtelnet-dev`, `libvncserver-dev`, `libwebsockets-dev`, `libpulse-dev`, `libssl-dev`, `libvorbis-dev`, `libwebp-dev`, `make`

Installation des dépendances

```
apt update
```

```
apt install mariadb-server openjdk-17-jdk libcairo2-dev libjpeg62-turbo-dev libpng-dev libtool-bin  
uuid-dev libssh2-1-dev libavcodec-dev libavformat-dev libavutil-dev libswscale-dev freerdp2-dev  
libpango1.0-dev libssh2-1-dev libtelnet-dev libvncserver-dev libwebsockets-dev libpulse-dev  
libssl-dev libvorbis-dev libwebp-dev make
```

Installer le serveur Guacamole

Téléchargement et extraction des sources

Avec `wget`:

```
wget https://downloads.apache.org/guacamole/1.5.4/source/guacamole-server-1.5.4.tar.gz
```

Extraire le fichier et se déplacer dans le répertoire créé:

```
tar xzf guacamole-server-1.5.4.tar.gz
```

```
cd guacamole-server-1.5.4
```

Exporter la variable d'environnement qui permet d'ignorer les erreurs dues à la compilation de `guacenc` (le fichier compilé reste fonctionnel):

```
export CFLAGS="-Wno-error"
```



Compilation

Configurer la chaîne de compilation:

```
./configure --with-systemd-dir=/etc/systemd/system
```

Compiler:

```
make
```

Installation

Installer le binaire produit:

```
make install
```

Mettre à jour les liens des bibliothèques:

```
ldconfig
```

```
systemctl daemon-reload
```

```
useradd -M -d /var/lib/guacd/ -r -s /sbin/nologin -c "Guacd User" guacd
```

```
mkdir /var/lib/guacd
```

```
chown -R guacd: /var/lib/guacd
```

```
sed -i 's/daemon/gua
```

```
cd' /etc/systemd/system/guacd.service
```

Activer, démarrer le service et vérifier son statut:

```
systemctl enable --now guacd
```

```
systemctl status guacd
```

Installation de Tomcat

```
useradd -r -d /opt/tomcat9 -s /bin/bash tomcat
```

```
mkdir /opt/tomcat9
```

```
wget https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.85/bin/apache-tomcat-9.0.95.tar.gz
```

```
tar xzf apache-tomcat-9.0.85.tar.gz -C /opt/tomcat9 --strip-components=1
```

```
ls -l /opt/tomcat9
```

```
chown -R tomcat: /opt/tomcat9/{logs,temp,webapps,work}
```

```
chown -R :tomcat /opt/tomcat9/
```

```
chmod -R g+r /opt/tomcat9.conf
```



```
chmod g+x /opt/tomcat9/conf
```

```
echo 'export CATALINA_HOME="/opt/tomcat9"' > /etc/profile.d/tomcat9.sh
```

```
echo 'export JAVA_HOME="/usr/lib/jvm/java-1.17.0-opensdk-amd64"' >>  
/etc/profile.d/tomcat9.sh
```

```
source /etc/profile.d/tomcat9.sh
```

```
/opt/tomcat9/bin/startup.sh
```

Installation du client

Etant donné que le client Guacamole est un applet Java, il sera également installé sur le serveur :

```
wget https://apache.org/dyn/closer.lua/guacamole/1.5.4/binary/guacamole-  
1.5.4.war?action=download
```

```
mv guacamole-1.5.4.war?action=download guacamole.war
```

```
cp guacamole.war /var/lib/tomcat/webapps
```

```
systemctl enable --now tomcat9
```

```
systemctl restart guacd
```

Installation des modules

Installation du connecteur JDBC

```
wget https://apache.org/dyn/closer.lua/guacamole/1.5.4/binary/guacamole-auth-jdbc-  
1.5.4.tar.gz?action=download
```

```
mv guacamole-auth-jdbc-1.5.4.tar.gz?action=download guacamole-auth-jdbc-1.5.4.tar.gz
```

```
tar xzf guacamole-auth-jdbc-1.5.4.tar.gz
```

```
cp guacamole-auth-jdbc-1.5.4/mysql/guacamole-auth-jdbc-mysql-1.5.4.jar  
/etc/guacamole/extensions/
```

```
mysql -u root -p
```

```
cd guacamole-auth-jdbc-1.5.4/mysql/
```

```
cat schema/*.sql | mysql -u root -p guacamole_db
```

```
mysql -u root -p
```

```
wget https://dlm.mariadb.com/3478926/Connectors/java/connector-java-2.7.11/mariadb-java-  
client-2.7.11.jar
```

```
cp mariadb-java-client-2.7.11.jar /etc/guacamole/lib/
```



```
nano /etc/guacamole/guacamole.properties
mkdir /etc/guacamole
wget https://downloads.apache.org/guacamole/1.5.4/binary/guacamole-1.5.4.war -O
/etc/guacamole/guacamole.war
ln -s /etc/guacamole/guacamole.war /opt/tomcat9/webapps/
/opt/tomcat9/bin/shutdown.sh && /opt/tomcat9/bin/startup.sh
mkdir /etc/guacamole/{extensions,lib}
echo "GUACAMOLE_HOME=/etc/guacamole" >> /etc/profile.d/tomcat9.sh
nano /etc/guacamole/guacamole.properties
ln -s /etc/guacamole /opt/tomcat9/.guacamole
systemctl restart guacd
```

Installation du module d'enregistrement des sessions

```
wget https://apache.org/dyn/closer.lua/guacamole/1.5.4/binary/guacamole-history-recording-
storage-1.5.4.tar.gz?action=download
mv guacamole-history-recording-storage-1.5.4.tar.gz\?action\=download guacamole-history-
recording-storage-1.5.4.tar.gz
tar xvf guacamole-history-recording-storage-1.5.4.tar.gz
cd guacamole-history-recording-storage-1.5.4/
cp guacamole-history-recording-storage-1.5.4.jar /etc/guacamole/extensions/
mkdir -p /var/lib/guacamole/recordings
guacd:tomcat /var/lib/guacamole/recordings
chmod 2750 /var/lib/guacamole/recordings
```

