

# Guacamole Server (Build Guide)

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Apache Guacamole is a RDP/SSH/VNC Terminal Server via HTML5. This entry explains how to build it from scratch and how to do a basic configuration to make it work.

## 1 General

This guide provides the basis on how to build the Guacamole Server from scratch. Afterwards the server is ready for use.

## 2 Pre-Requisites

The following packages are required prior to the server build:

Code

```
sudo apt install -y libpulse-dev libwebsockets-dev wsock32-dev libavformat-dev freerdp2-dev
```

For the client a working Apache Tomcat Server with TLS connector is required.

## 3 Server Installation

Get the latest Release via <https://guacamole.apache.org/releases/>

In this documentation the version 1.5.3 is used but the steps are the same for other versions.

Code

```
wget https://dlcdn.apache.org/guacamole/1.5.3/source/guacamole-server-1.5.3.tar.gz
tar xzf ~/guacamole-server-1.5.3.tar.gz
cd ~/guacamole-server-1.5.3
./configure --with-init-dir=/etc/init.d
make
sudo make install
sudo ldconfig
sudo systemctl daemon-reload
sudo systemctl start guacd
sudo systemctl enable guacd
```

Afterwards make sure to adapt the `guacamole.properties` to match your use-case. An example file utilizing OpenID as default authentication could look like this:

Code

```

guacd-hostname: 127.0.0.1
guacd-port: 4822

#MariaDB Settings
mysql-driver: mariadb
mysql-hostname: <database.example.com>
mysql-port: 3307
mysql-database: <database_name>
mysql-username: <username>
mysql-password: <password>
mysql-auto-create-accounts: true

mysql-disallow-simultaneous-connections: false
mysql-disallow-duplicate-connections: false

#OpenID Connect Settings
openid-authorization-uri: https://login.microsoftonline.com/<tenant-id>/oauth2/v2.0/authorize
openid-client-id: <client-id>

openid-jwks-endpoint: https://login.microsoftonline.com/<tenant-id>/discovery/v2.0/keys
openid-issuer: https://login.microsoftonline.com/<tenant-id>/v2.0
openid-redirect-uri: https://rmgw.example.com

# General Other Settings
extension-priority: openid
allowed-languages: en,da

```

Alles anzeigen

## 4 Client Installation

Get the latest Release via <https://guacamole.apache.org/releases/> including any extensions you need.

Put the extension JARs in `/etc/guacamole/extension` to have them loaded on start.

For the `guacamole.war` (the client) can be put directly under `/etc/guacamole/`. For this a symlink from the tomcat webapps folder will be created, e.g.:

Code

```
ln -s /etc/guacamole/guacamole.war /opt/tomcat/current/webapps/ROOT.war
```

## 5 Conclusion

Once both parties are installed and the `guacd` service and `tomcat` service are running, then `guacamole` should directly work.