

# Introducing XMPP

XMPP is an Internet standard for distributed real-time chat.

Like mail servers, anyone can host an XMPP server and offer user@yourdomain addresses.

Also like mail servers, XMPP servers connect to each other to deliver messages. This creates a global, distributed network of federated servers.

Similar to mailing list servers, many XMPP servers also support hosting other services like chat rooms. Any XMPP user can use these regardless to what server they use.

While there are many chat solutions with nice features, none offer the freedom and broad support as XMPP.

Walled Garden  
Chat Systems  
are Oppressive

Federation  
is Liberation



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# XMPP Server Setup Guide

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# Install Software

The first step is to choose which XMPP server package to install. Here are a few popular choices:

- ▶ **ejabberd** (Erlang, GPL)
- ▶ **MongooseIM** (Erlang, GPL)
- ▶ **Prosody** (Lua, MIT)
- ▶ **Tigase** (Java, AGPLv3)

You can install these with your Linux distro's package manager. Documentation for initial setup can be found on the project's website.

You will also need to provide TLS key and cert files for the domain.



Let's Encrypt is a great solution for this, just follow the directions for hosting HTTPS for the same domain and use the key/cert files.

# DNS SRV Records

You may be familiar with DNS MX records, which are used by mail servers to determine which server handles mail for a given domain.

XMPP uses DNS SRV records in a similar way. You will need to add records for both client and server connections to your domain:

```
_xmpp-client._tcp.example.net. 86400 IN SRV 5 0 5222 example.net.  
_xmpp-server._tcp.example.net. 86400 IN SRV 5 0 5269 example.net.
```

Like MX records, multiple servers may be responsible for the same domain. You can set the priority and weight on each entry for load balancing.

Unlike MX records, the ports (5222 and 5269) are also provided. This allows you to host different XMPP services on the same IP address. All XMPP servers default to the above ports so you should only need to replace example.net with your domain at this point.

# Testing Your Server

Once you've completed these steps you should be able to connect a client to your own server. You can join the room **xsf@muc.xmpp.org** to test federation and let us know this guide was useful.

You are also encouraged to test your new server with this testing tool:

**<https://xmpp.net/>**