

Extensible Messaging and Presence Protocol (XMPP, formerly named Jabber) is an open, XML-based protocol originally aimed at near-real-time, extensible instant messaging (IM) and presence information (e.g., buddy lists), but now expanded into the broader realm of message-oriented middleware. It was developed by the Jabber open-source community in 1999. Built to be extensible, the protocol has been extended with features such as Voice over Internet Protocol and file transfer signaling.

Unlike most instant messaging protocols, XMPP is an open standard. Like e-mail, it is an open system where anyone who has a domain name and a suitable Internet connection can run their own XMPP server and talk to users on other servers. The standard server implementations and many clients are also free and open source software.

Keywords:

- Decentralization: The architecture of the XMPP network is similar to email; anyone can run their own XMPP server and there is no central master server.
- Open standards, XEP-nnnn extensions
- Security
- Flexibility

Message delivery scenario

Suppose juliet@capulet.com wants to chat with romeo@montague.net. Juliet and Romeo each respectively have accounts on the capulet.com and montague.net servers. When Juliet types in and sends her message, a sequence of events is set in motion:

1. Juliet's client sends her message (as XML stream) to the capulet.com server
 - * If montague.net is blocked on capulet.com, the message is dropped.
2. The capulet.com server opens a connection to the montague.net server.
 - * If capulet.com is blocked on montague.net, the message is dropped.
 - * If Romeo is not currently connected, the message is stored for later delivery.
3. The montague.net server delivers the message to Romeo.

Clients:

PSI (Java, jabber only)
 Pandion (Win, jabber only)
 Pidgin (Linux, multi-IM)
 Adium (Mac OS X, multi-IM)
 Miranda IM (Win, multi-IM)
 Google Talk (proprietary, jabber)

Servers:

jabberd 1.4, 2.0
 ejabberd
 sun java system instant messaging
 iChat server
 (<http://xmpp.org/software/servers.shtml>)

Jabberd 1.4 under Debian

- init script: /etc/init.d/jabber
- configuration file: /etc/jabber/jabber.xml
- logfiles: /var/log/jabber/*.log
- data: /var/lib/jabber/

Basic configuration:

1. setup host name (ip address) in jabber.xml : <host>...</host>
2. restart service
3. monitor logs (tail -f /var/log/jabber/*.log)
4. create accounts via a jabber client (username@serverip)