

# Jabber , XMPP , OpenFire



علی قاسم پور  
[www.j-22.ir](http://www.j-22.ir)

- ***History***
  - Jabber , XMPP
  - OpenFire
- ***How It Works ?***
- ***OpenFire Service***
  - *Installation*
  - *Demo*

# Jabber , XMPP

**1999** : Jeremie Meller Introduce open source technology of Instant Message by the name of **Jabber** . Technology was using client-server IM using XML .

**2000** : Jabber supports IETF standards and Introduce IMPP . Meller made 1st Jabber server ( Jabberd ) .

**2001** : Jabber Software Foundation was made ( JSF ) to developing and documenting XMPP .

**2002** : First meeting with XMPP .

**2004** : IETF published **RFC 3920** and **RFC 3921** for XMPP .

**2005** : **Google** Talk used XMPP for IM .

# OpenFire

- **Jive Software** was founded on 2001 to provide communication and collaboration solutions .
- **Jive** provide Web Based support tool as Jive Messenger.
- **Jive Messenger** changed named to WildFire then **OpenFire** .
- **Open Fire** run under Ignite Real Time project .

# XMPP

XMPP = Extensible Messaging Presence Protocol

According to [RFC 3920](#) XMPP Has some key factor to communicate :

```
jid          = [ node "@" ] domain [ "/" resource ]
domain       = fqdn / address-literal
fqdn         = (sub-domain 1*("." sub-domain))
sub-domain   = (internationalized domain label)
address-literal = IPv4address / IPv6address
```

\*Fqdn = fully qualified domain name

# XMPP

- XMPP will use **XML stream**.
- XML stream is like envelope for **XML** using in a session .

	initiating to receiving	receiving to initiating
to	hostname of receiver	silently ignored
from	silently ignored	hostname of receiver
id	silently ignored	session key
xml:lang	default language	default language
version	signals XMPP 1.0 support	signals XMPP 1.0 support

```

-----
| <stream>
|-----
| <presence>
|   <show/>
| </presence>
|-----
| <message to='foo'>
|   <body/>
| </message>
|-----
| <iq to='bar'>
|   <query/>
| </iq>
|-----
| ...
|-----
| </stream>
|-----

```

Open fire is **open source** XMPP server , written in **Java** and contains many modules that gives wide range features :

- Web-based administration panel
- Plugin interface
- Customizable
- SSL/TLS support
- User-friendly web interface and guided installation
- Database connectivity (i.e. embedded HSQLDB or other DBMS with JDBC 3 driver) for storing messages and user details
- LDAP connectivity
- Platform independent, pure Java
- Full integration with Spark ( XMPP Client )
- Can support more than 50,000 concurrent users

## Installing Open Fire

Open Fire is cross platform service and can be downloaded from below link :

<https://www.igniterealtime.org/downloads/index.jsp>

**Choose your platform:**

 **Windows**     **Linux**     **Mac**

 <a href="#">openfire-4.1.1-1.noarch.rpm</a> and variants	RPM (no JRE bundled) for Red Hat Linux	December 31, 2016	23.93 MB
 <a href="#">openfire-4.1.1-1.i686.rpm</a> and variants	RPM (32bit JRE bundled) for Red Hat Linux	December 31, 2016	96.20 MB
 <a href="#">openfire-4.1.1-1.x86_64.rpm</a> and variants	RPM (64bit JRE bundled) for Red Hat Linux	December 31, 2016	93.68 MB
 <a href="#">openfire_4.1.1_all.deb</a>	Debian package, no Java JRE	December 31, 2016	20.90 MB
 <a href="#">openfire_4_1_1.tar.gz</a>	Works on most Unix variants, no Java JRE	December 31, 2016	23.40 MB



***DEMO***

Thank You  
For your attention

## References :

- <https://xmpp.org>
- <https://www.igniterealtime.org>
- <https://datatracker.ietf.org/doc/rfc3920>

Ali Ghasempour

Web Site : [www.j-22.ir](http://www.j-22.ir)

Email : [ali.ghasempour@gmail.com](mailto:ali.ghasempour@gmail.com)