

Instant Messaging for the Campus

Network & Academic Computing Services
University of California, Irvine

“Instant Messaging (IM) is a form of real-time communication between two or more people based on typed text. The text is conveyed via computers connected over a network such as the Internet.”

Wikipedia

(Similar to the UNIX 'talk'.)

Modern Services

- AOL Instant Messaging (AIM)
- Google Talk
- ICQ (AOL)
- IRC
- Windows Live (MSN)
- Yahoo!

Additional Features

- File exchange
- Audio / VOIP
- Video

Attractive

- Convenient
- Accessible
- Low barrier to entry
- Familiar
- Not dissimilar to TXTing

Popular

- Students use it.
- Parents use it.
- IT folks in the datacenter use it.

(Apologies to Cole Porter)

IM is used to conduct
university business.

Concerns

- Foreign namespace.
- Traffic goes off-campus
- SPIM
- Encryption
 - “Is it safe?”

(Apologies to William Goldman)

“Is there anything to be gained from a campus IM server?”

- Identity Verification
 - Campus network ID
- Encryption via SSL
- Keep the traffic on-campus

Irvine's UCInetID

- MIT Kerberos V
- Web apps authenticate via WebAuth
- Servers auth via PAM (or similar)

Central Computing Services

- Mailbox Services
 - Faculty, Staff, Students
- Oracle Calendar
- Xythos WebFiles
- Backups (EMC Networker)
- RHEL (mostly)

Extensible Messaging and Presence Protocol

- XMPP (aka Jabber)
 - <http://www.jabber.org/>
- RFC 3920, 3921, 3922, 3923, 4622
- MUC (chat rooms)

XMPP Servers

- http://en.wikipedia.org/wiki/List_of_Jabber_server_software
- jabberd14
- jabberd2
- OpenFire
- Mac OS X Server
 - iChat Server

Experimental Pilot

- December 2005
- jabberd2

Experimental Pilot, II

- February 2006
- OpenFire (née WildFire)

OpenFire

- <http://www.jivesoftware.com/>
- <http://www.igniterealtime.org/>
- Open source
- Java
- Binaries for Linux, Windows, Mac OS X (Darwin)
- Build from Source

OpenFire (cont.)

- Active development
- Hooks for native auth
- LDAP integration
 - VCard mapping
- MySQL / Oracle / MS SQL
- Commercial plugins(*)

Soft Launch “Beta”

- August 2006
- iChat, GAIM (Pidgin), AdiumX, Exodus
- Announced to computing community.

IM at UC Irvine

- JabberID:
 - UCINETID@uci.edu
- chat.nacs.uci.edu
- DNS SRV records resolve @uci.edu to chat.nacs.uci.edu .
- SSL/TLS required

UC Irvine (cont.)

- WildFire on RHEL
- S2S is disabled
- LDAP/VCard mapping for canonical names.
- MUC enabled
 - Nicknames in spec

July 2008

... still in “soft launch”

- Unadvertised
- 335 accounts
- Deployed in at least two academic schools.
- ~100 peak concurrent sessions.

“Life is what happens
while you’re busy
making other plans.”

John Lennon

Still to do

- SSL certificate for UCI.EDU
- Double-check SRV records
 - “conference”
 - “pubsub”
- New, modern hardware
- Version upgrade to OpenFire 3.5.1
- VM?

Full Deployment

- Fall 2008
- Really!

Resources

- <http://www.nacs.uci.edu/computing/im>
- Andrew Laurence
atlauren@uci.edu

