STANFORD
UNIVERSITY

INFORMATION TECHNOLOGY SERVICES

Stanford IM
(Instant Messaging)

Tech Briefing

September 11, 2009 – Turing Auditorium

www.stanford.edu/services/instantmessaging

What is Stanford IM?

- Text-based Communication Tool
  - Requested by stakeholders from across campus (and off-site) as part of the Work Anywhere initiative to allow University staff to conduct University business with their co-workers at Stanford
  - Uses SUNet ID
  - Uses SSL Encryption
- Two supported open source instant messaging clients
  - Adium (for Mac)
  - Pidgin (for Windows)

Benefits of Using Stanford IM

- Faster way of sharing encrypted business information
  - Clients across campus and Med School stay connected
  - Business offices that are off-campus can quickly share data
- Quick answers delivered to students
- Archive/Log your chat sessions (locally, on your computer)
  - You must install SWDE if archiving/logging chat sessions containing restricted or confidential data.
- Create Ad-Hoc Groups for multiple user conversation chats
- Centrally-funded service provided free-of-charge to the Stanford community

Encryption
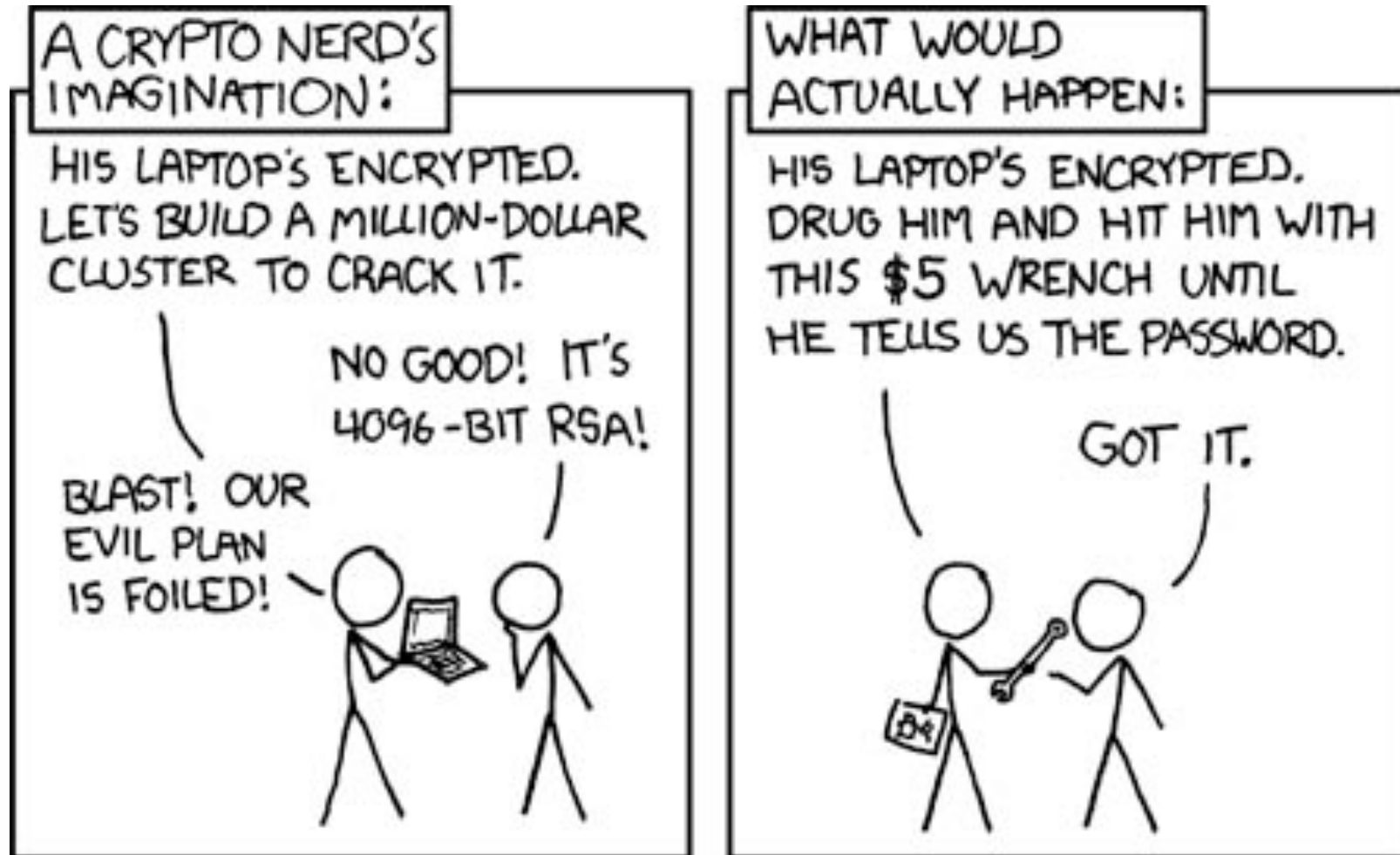
Encryption

- ## What WILL be encrypted by the IM service:
  - the network connection between the desktop clients and the IM server

- ## What MAY be encrypted by the IM service:
  - the full conversation between the desktop clients (including on the server)

- ## What will NOT be encrypted by the IM service:
  - the logs of the conversations in the desktop clients (this is where you would need to consider SWDE)

How it works

Jabber Server

encrypted

encrypted

Adium/Pidgin configured with Stanford Account

Adium/Pidgin configured with Stanford Account

Unencrypted Session

Internet

Text transmits in the clear

Yahoo IM

Yahoo IM

What is OTR?

- Off The Record (OTR)
  - Encrypts the data on the server as well as in the "pipeline" to get to the server
  - You do not need OTR for Stanford to Stanford chats.
    - There is no logging of chat sessions on the Stanford server
    - The connection to the Stanford server is encrypted
  - The two clients involved in the chat are the only two who have a record of the content of the chat
- Stanford guarantees conversation between computer and server
- OTR guarantees conversation between the clients
- Do not use other services (e.g., Yahoo!, Gtalk, AIM) to chat about prohibited, restricted, or confidential data.

Allowable Types of Data

Data Classifications

Types of Data	Prohibited (Not Allowed)	Restricted (Under Review)	Confidential (Allowed)
	• **Social Security Numbers**	• **Student Records**	• **Fac/staff empl apps, personnel files, benefits info, salary, bdates, and contact information**
	• **Credit Card Numbers**	• **Protected Health Information (PHI)**	• **Admission apps**
	• **Financial Account Numbers, such as checking or investment account numbers**	• **Passport and visa numbers**	• **Donor info and gift amounts**
		• **Research and other information covered by non-disclosure agreements**	• **Privileged attorney-client communications**
	• **Driver's License Numbers**		• **Policies**
			• **Memos, email, reports, budgets, plans, & fin info**
	• **Health Insurance Policy ID Numbers**		• **Non-public contracts**
			• **Univ. & Empl ID**
			• **Info subject to Export Control License**

For more info: www.stanford.edu/group/security/securecomputing/dataclass_chart.html

Information Security Office (ISO)

- According to the ISO, at this time, the Stanford IM service is:
  - in the process of being reviewed for its security around handling restricted data.
  - only available for use with Confidential (and non-classified) data.
- Ongoing ISO requirements for a secure instant messaging service include:
  - that it not to be used to transmit prohibited data.
  - that it is limited to campus-only IP addresses (VPN in if off campus).
  - that it is limited for use with the approved clients (Adium and Pidgin).
  - that it is configured to require users to approve new buddies.

Logging of Chat Sessions

- No logging of chat sessions on the server
- Logging of chat sessions on your computer
  - Check your client's Preferences
    - Adium–Adium Menu>Preferences>General
    - Pidgin–Buddy List>Tools>Preferences>Logging
- If your chat sessions are logged on your computer and contain non-public data:
  1. The log file must be encrypted. See the Data Encryption at Stanford web site to learn more http://www.stanford.edu/services/encryption/ ; **and**
  2. make sure that your computer is protected with a login password.

Download IM Clients

- Download the recommended IM clients from their sites:
  - Adium – adium.im
  - Pidgin – pidgin.im

- These are the recommended clients because
  - They allow for Kerberos authentication
  - They allow for the SSL encryption
  - iChat does not meet these requirements

- You must have an account on the service to chat with others on the same service. (i.e., Stanford, Yahoo)
  - For Example, Stanford SUNetID to SUNetID.
  - You can not chat from your Stanford SUNetID to Yahoo IM account.

Adium–Mac Client

- Adium is a free instant messaging application for Mac OS X.

- Configure the client
  - Once downloaded follow the instructions to configure the client
    - im.stanford.edu
  - Most importantly, just remember:
    - Jabber ID = SUNetID@stanford.edu
    - No Password Required at installation
    - Security: **Require SSL/TLS: checked**

- You <u>must</u> authenticate to Kerberos.
  - Use Stanford Desktop Tools
    - ess.stanford.edu

Configure Adium

- Adium Menu>Preferences
- Click **Accounts** to display the Accounts window. If you are configuring Adium for the first time, select your user name and then click **Edit**.

- If you are configuring an existing Adium client, click the in the lower-left corner and select **Jabber**.
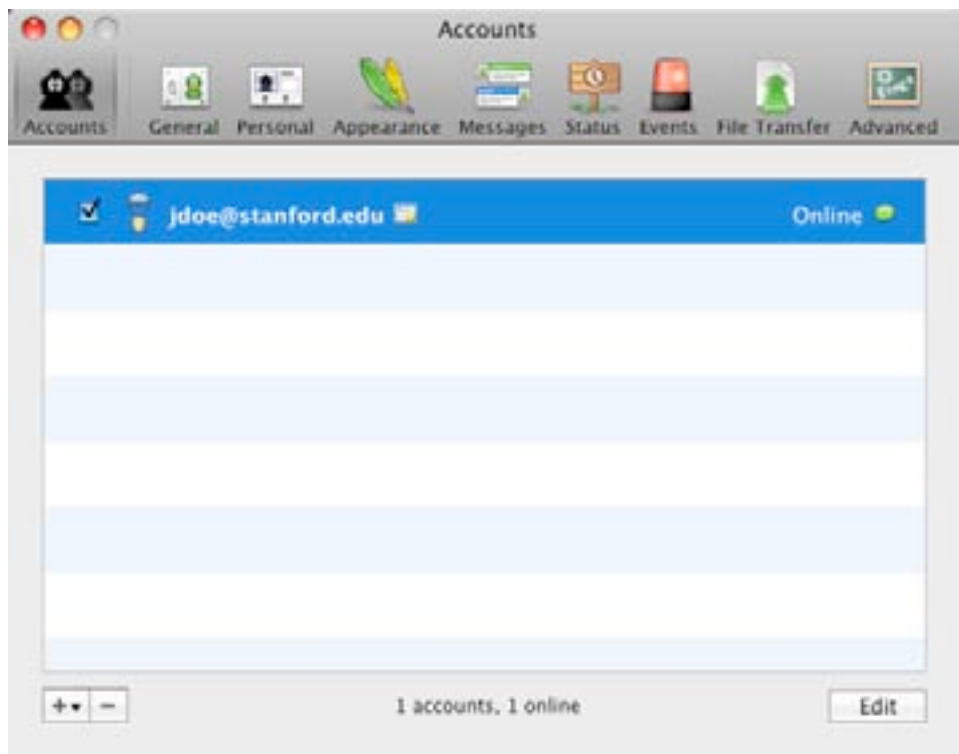
Configure Adium

- Do **not** enter a password

- Do **not** click on Register New Account

- Click **Options**

Configure Adium

- Leave **Connect Server** blank
- Resource defaults to your computer's name. Change if you prefer.
- Leave Port set to **5222**
- **Require SSL/TLS**
- Click **OK**

- If you are prompted to install Growl, it is a notification service that will inform you when people come on line or go off line.
- Adium developers recommend it.
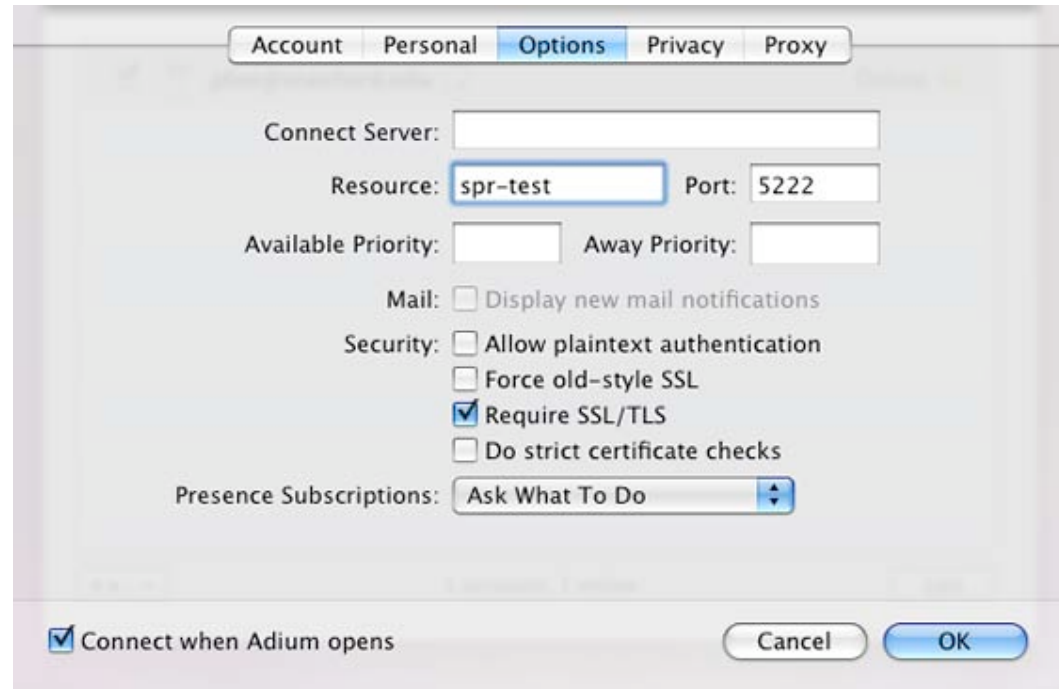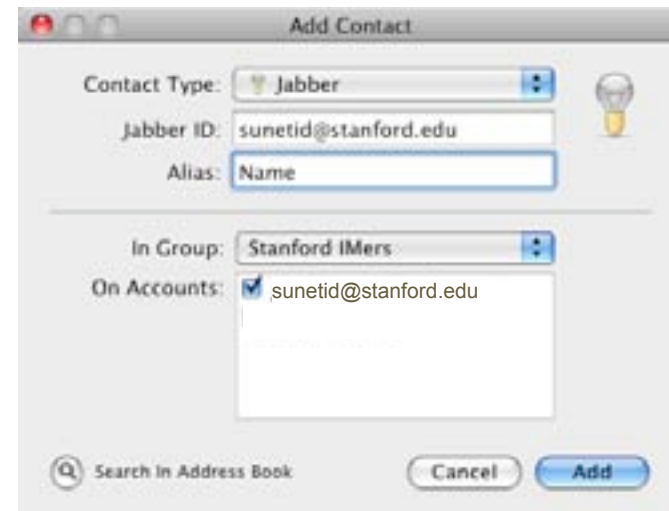
Adium – Add a Group, Add a Contact

- ## Add a Group
  - From the **Contact Menu**, select **Add Group**, enter group name and click **Add**.

- ## Add a Contact (Business Contact) and place them into a group
  - From the **Contact Menu**, select **Add Contact**.
  - Jabber ID = **SUNetID@stanford.edu**
  - Give your Contact an Alias
  - Put that Contact in a Group, and click **Add**.

Adium – Group Chats

- Ad-hoc Group Chat
- Sessions are not logged on the server.
  - From the File Menu, select **Join Group Chat**.
  - Spaces are not allowed in the Chat Room Name
  - Server: **conference.stanford.edu**
  - List invitees as SUNetID@stanford.edu
  - Click **Join**.
  - Click **Accept Defaults**.
  - You may invite additional contacts after chat room is created.
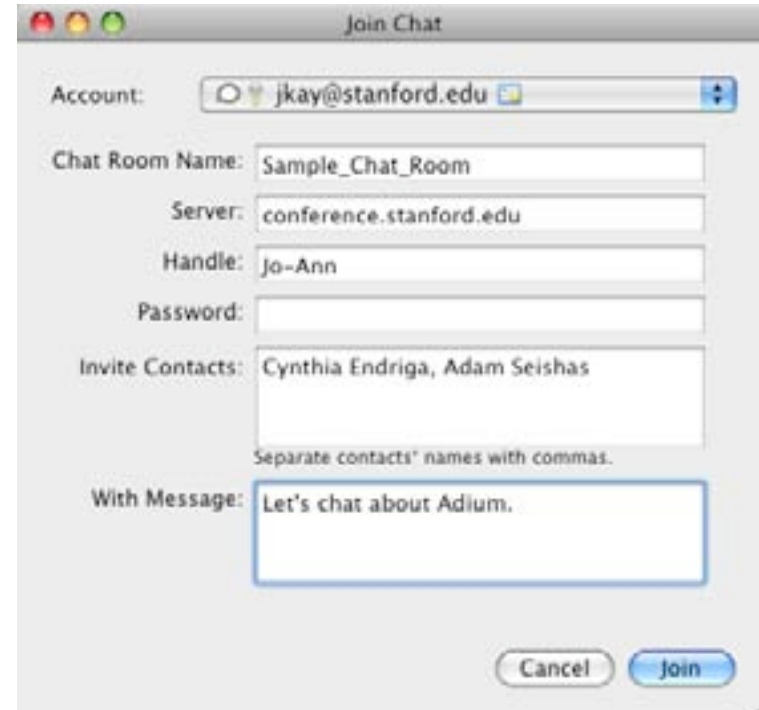
Pidgin–Windows client

- Pidgin is a free instant messaging application for Windows users.

- You must obtain a Kerberos ticket to successfully log in to Stanford IM www.stanford.edu/services/ess/pc/kfw.html

- Installation of Pidgin is simple.
  - Download the client from www.pidgin.im
  - At the Welcome to Pidgin screen, click **Add**. In the Accounts window, click **Add** again.
    - if already installed, go to Accounts>Manage Accounts>**Add**

Configure Pidgin

- In the **Protocol** field, select **XMPP**
- In the Username field, enter your SUNetID
- Domain: **stanford.edu**
- Resource: leave blank or enter **Stanford IM**
- Leave Password field blank.
- Enter the user options of your choice
- Click **Advanced**

Add Account

Basic | Advanced | Proxy

Login Options

Protocol: XMPP

Username: jdoe

Domain: stanford.edu

Resource:

Password:

☐ Remember password

User Options

Local alias:

☐ New mail notifications

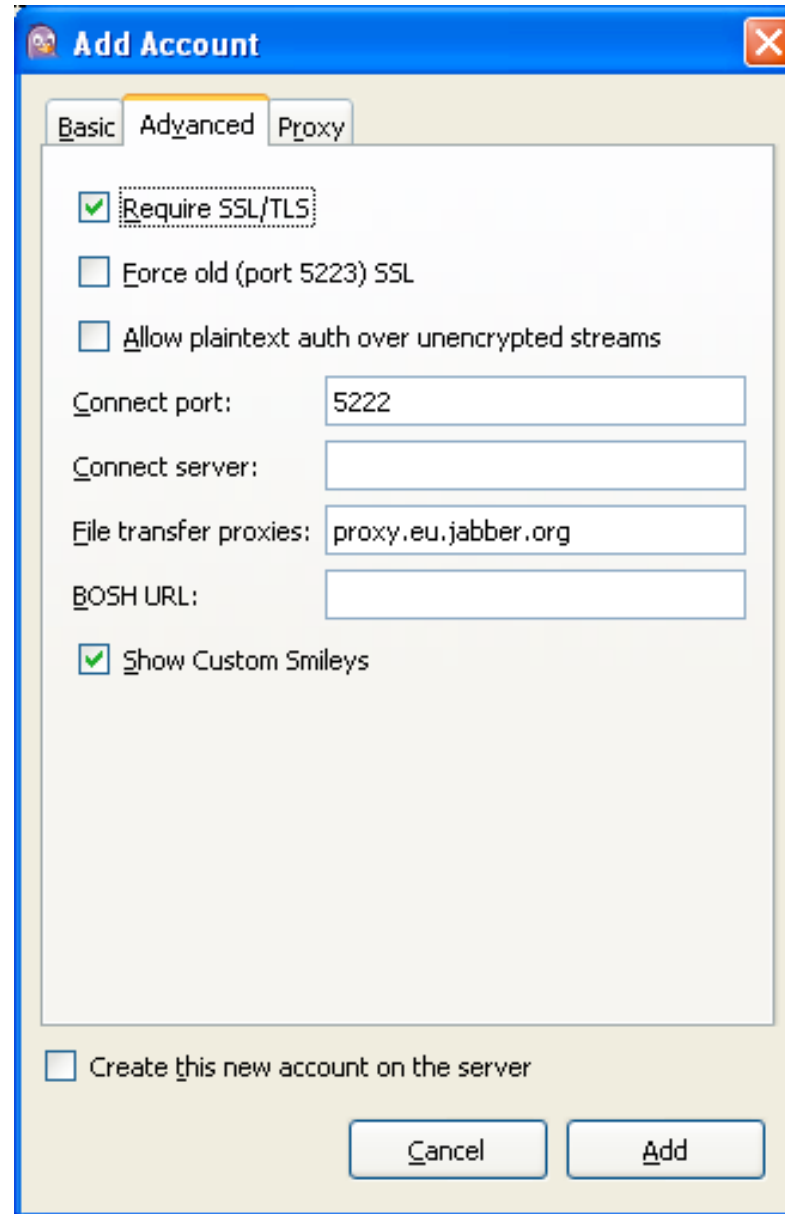☑ Use this buddy icon for this account:

Remove

☐ Create this new account on the server

Cancel   Add

Configure Pidgin

- **Require SSL/TLS**
- Connect port: **5222**
- Connect server: leave blank.
- File transfer proxies: although not supported, leave as is.
- BOSH URL: leave blank
- Show Custom Smileys (optional)
- Do not check "Create this new account on the server."
- Click **Proxy**

Add Account

Basic | Advanced | Proxy

☑ Require SSL/TLS

☐ Force old (port 5223) SSL

☐ Allow plaintext auth over unencrypted streams

Connect port: 5222

Connect server:

File transfer proxies: proxy.eu.jabber.org

BOSH URL:

☑ Show Custom Smileys

☐ Create this new account on the server

Cancel   Add

Configure Pidgin

- Proxy type: **Use Global Proxy Settings**
- Click **Add.**

Pidgin–Add a Group

- ## Add a Group
  - From the **Buddies Menu**, select **Add Group**, enter group name and click **Add**.

- ## Add a Buddy (Business Contact) and place them into a group
  - From the **Buddies Menu**, select **Add a Buddy**.
  - Buddy's username = **SUNetID@stanford.edu**
  - Give your Contact an Alias
  - Put that Contact in a Group, and click **Add**.

**STANFORD UNIVERSITY ● INFORMATION TECHNOLOGY SERVICES**
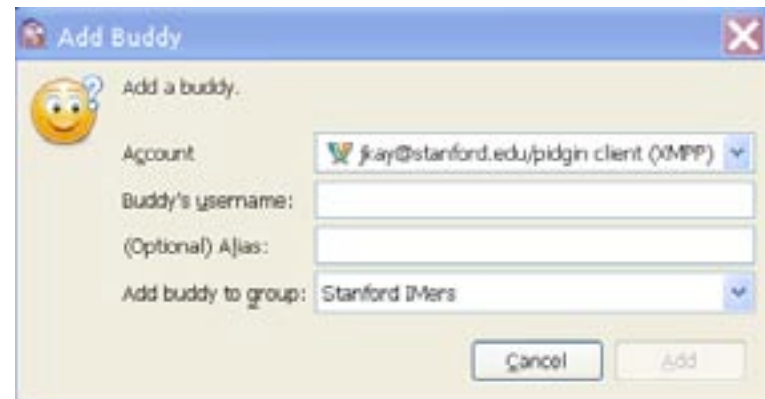
Known Issues

Known Issue	Workaround
Duplicate IM buddies may appear in the Pidgin Buddy List window. Deleting one entry may delete your own availability on that person's Buddy List window.	No workaround at this time. We have contacted the Pidgin developers about the problem.
Certificate warnings may appear as you sign in.	Accept the certificate.
Problems creating and joining permanent group chats.	Accept Group Chat preferences defaults.
iChat is not a supported IM client.	We are contacting the vendor.
On Windows, you will get an additional password prompt if you only have a WIN.STANFORD.EDU Kerberos ticket.	Install Stanford Desktop Tools.
If you do not have a Kerberos ticket, you will get a "500 internal server error".	Obtain a Kerberos ticket by logging in to Stanford Desktop Tools or Network Identity Manager.

IM Etiquette

- Set your away status.
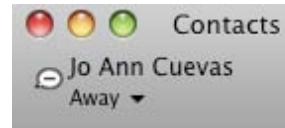
- Just because the other user didn't set their presence (available/away) doesn't mean they are available.
- If you don't need an immediate response, use email.
- Always be polite.
- Keep it business related.

Keep in Mind

- Stanford IM is available to full-service SUNet IDs only

- No storage limitations

- File transfer using Stanford IM is **not supported (or encrypted).**

    - Use secure email for documents with classified data. www.stanford.edu/services/secureemail/

- Newly activated SUNet IDs may have a lag time of 1 hour before they are active and therefore Stanford IM will not connect until the full service SUNet ID is active.

IM Tips

- To see if you are chatting with another Stanford IM user, hover over their name in the Contact/Buddy List. You should see their "@stanford.edu" address.

- When adding/requesting a contact, they will not appear active on your contact list until they accept your request.

- It is your responsibility to ensure that you are using the Stanford account when conducting business over a secure chat session.

Future Directions

- Integration with Workgroup Manager
- Web-based service
- Integration with Stanford Email and Calendar

Help and Support

- Stanford Instant Messaging Service Page
  - im.stanford.edu
- Need help with installation and/or configuration?
  - HelpSU: helpsu.stanford.edu
    - Request Category:
    - Request Type:
- Frequently Asked Questions
  - Stanford Answers: answers.stanford.edu