



Telepathy

Unifying IM, Voice & Video
Communications

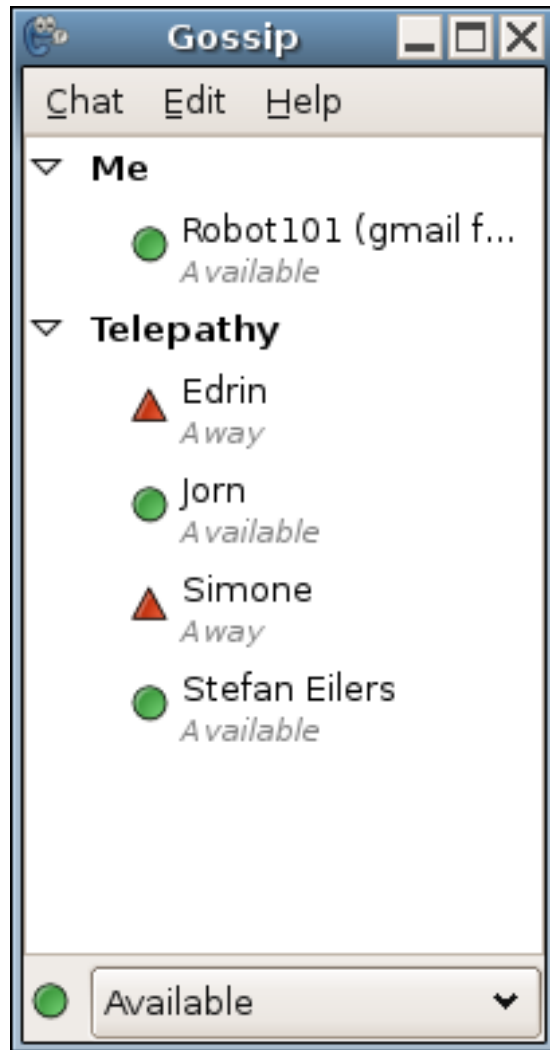


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Rationale

- A new approach to IM & VOIP
- A brief look at the existing clients...

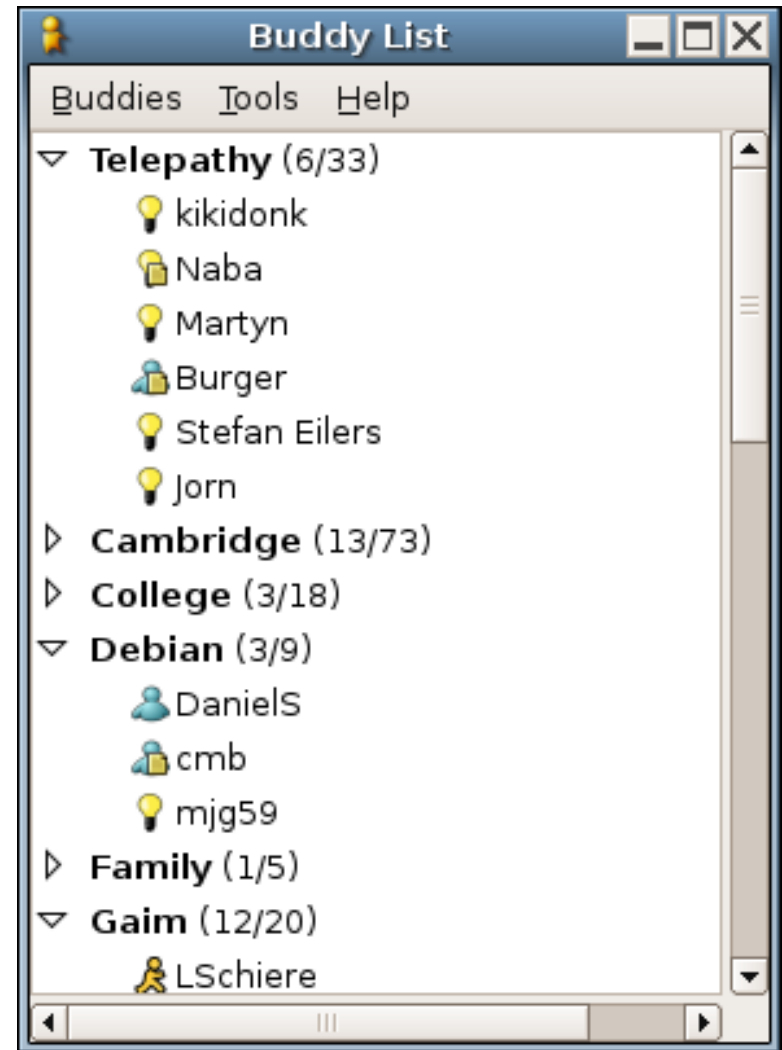
Gossip



- ✓ Clean UI
- ✓ GNOME friendly
- x XMPP only
- x Basic functionality

Gaim

- ✓ Multiple protocols
- ✓ More features...
- x ...but not everything that people want
- x Poor GNOME integration



Ekiga



- ✓ Voice & video client
- ✓ SIP & H.323
- x Growing its own address book, messaging, other protocols...

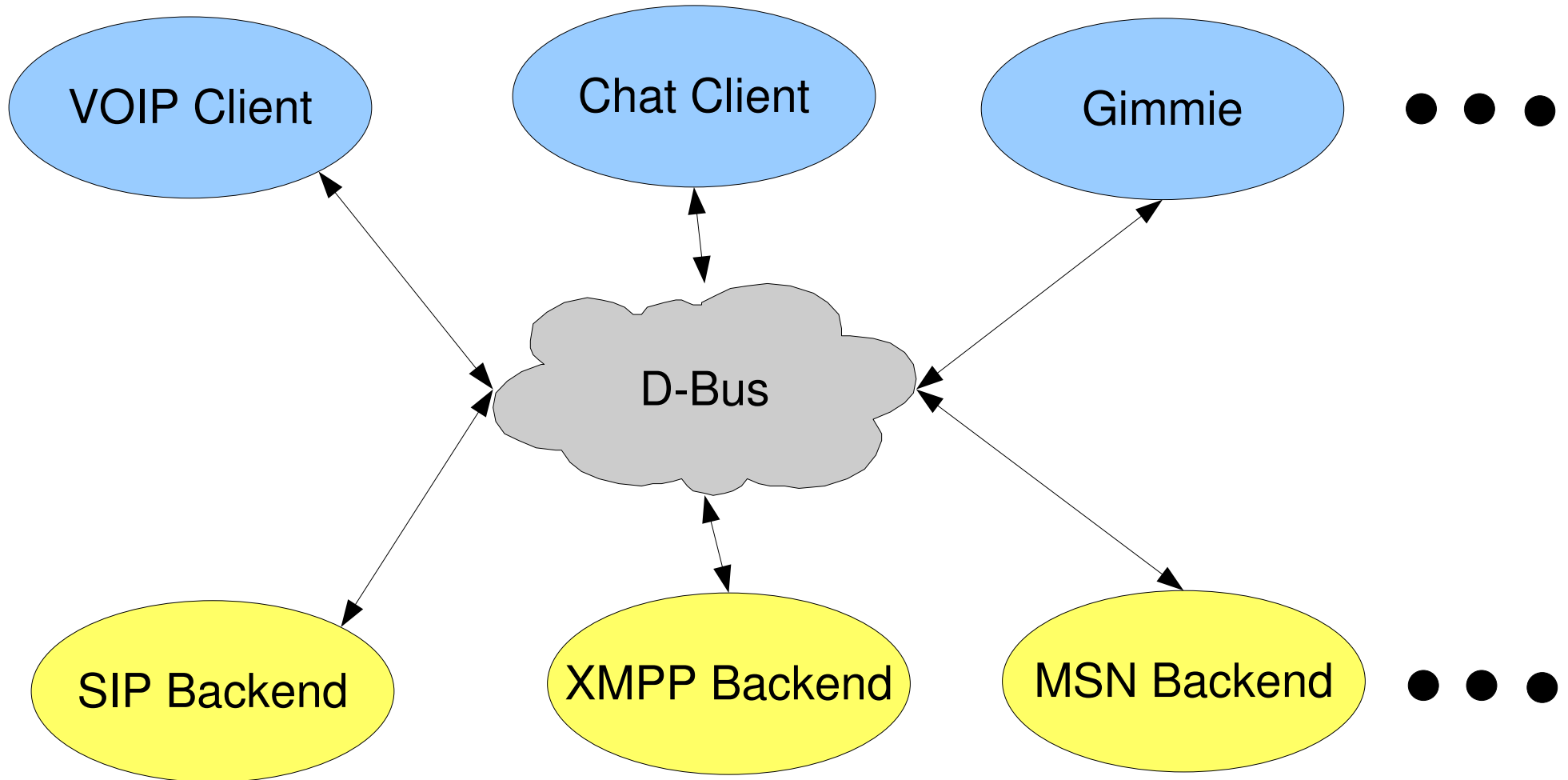
Problems

- Massive duplication of effort
- Each client has its own D-Bus interface
- Things like Gimmie, Deskbar, Evolution & Nautilus have to choose one to support
- Integration of IM & VOIP into the desktop is poor as a consequence

The Big Idea

- Move away from the monolithic client
- Create a standard set of D-Bus interfaces
- Abstract common messaging, presence & multimedia services
- Separate the protocol code backends from the UI programs that use them

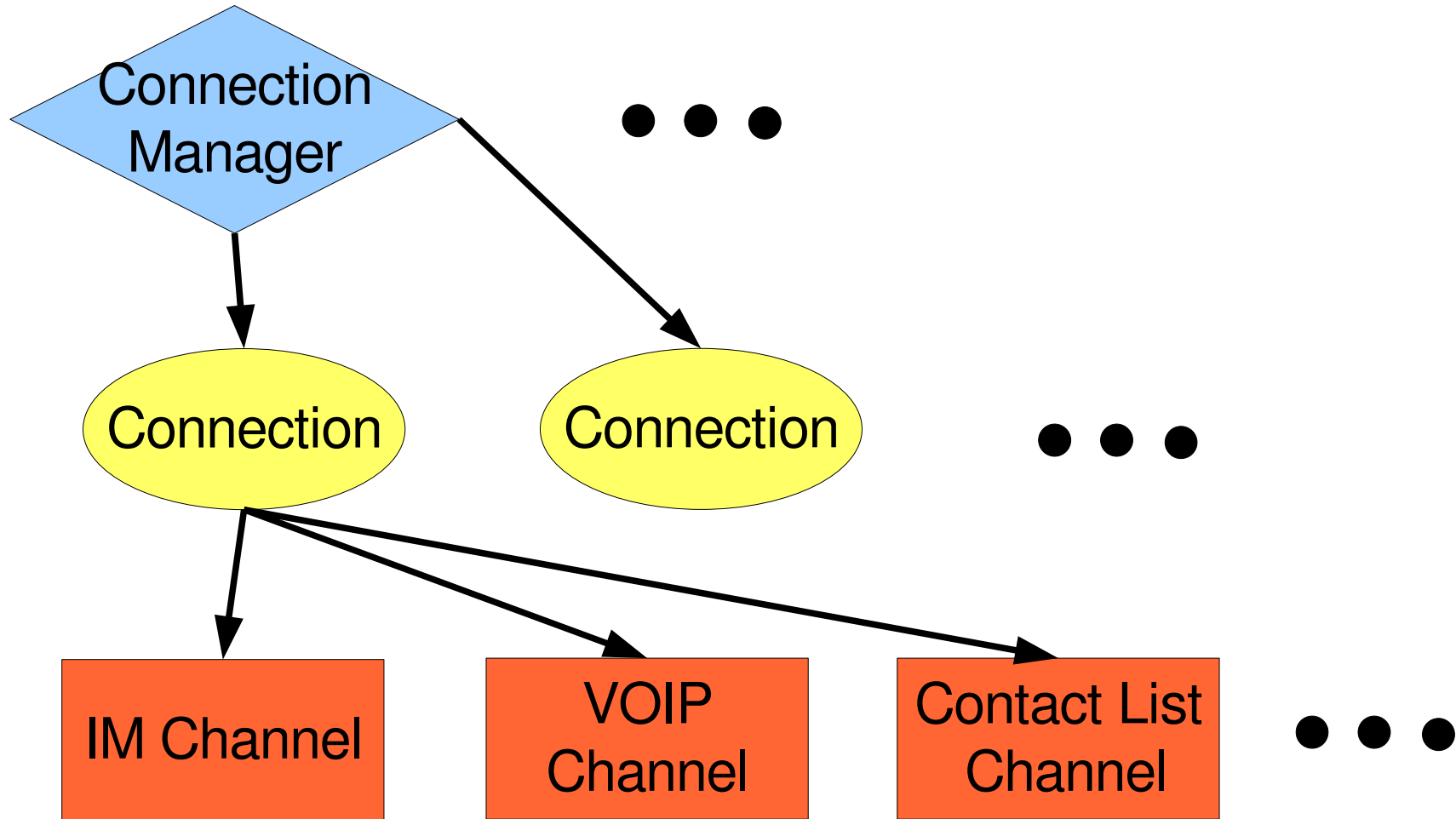
The Big Idea (2)



Benefits

- ✓ Do one thing and do it well
- ✓ Re-usable components
- ✓ Interchangeable user interfaces
- ✓ Share connections between UI programs
- ✓ Language (and license) independence

Specification



Specification (2)

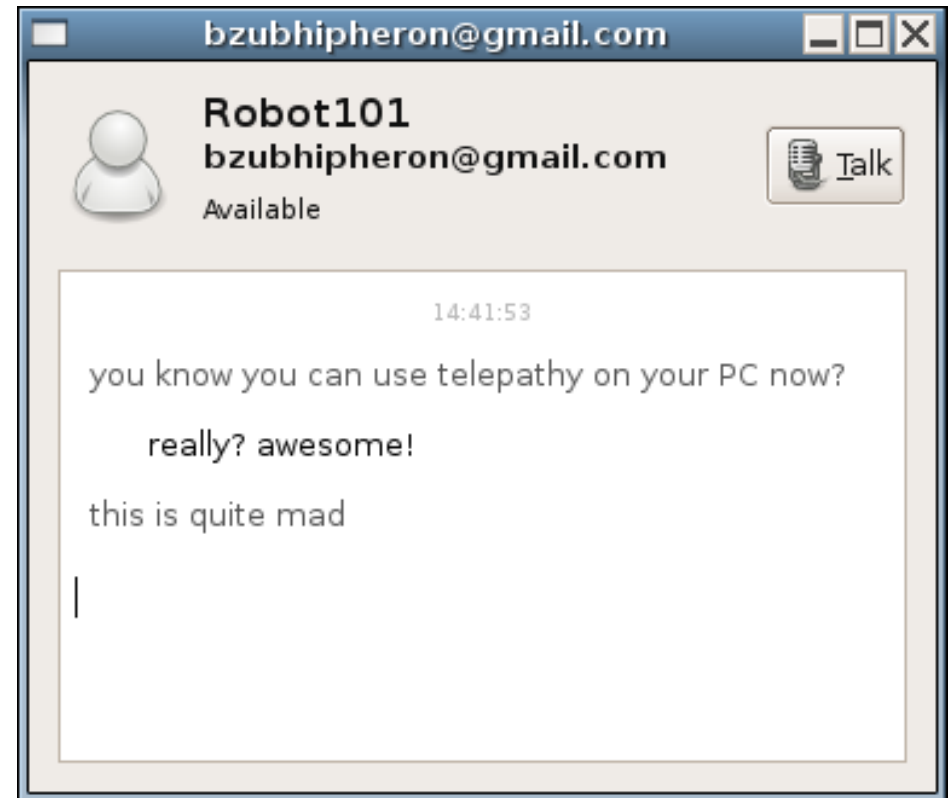
- Connection manager objects give you connection objects
- Connections have interfaces: presence, aliases, avatars...
- Connections give you channel objects
- Channels have a type: IM, VOIP/video, contact list...
- Channels have interfaces: properties, groups...

Backend Implementation: Gabble

- Jabber/XMPP backend by Collabora
- Based on libloudmouth and the D-Bus glib bindings
- Provides IM, multi-user chat and roster channels
- Implements Google Talk (soon to be Jingle) signalling
- Has interfaces for presence, aliases, avatars...

Frontend Implementation: Cohoba

- Prototype GNOME client by Raphaël Slinckx (kikidonk)
- Written in Python using GTK and D-Bus bindings
- A bit mad... :)



VOIP Engine

- Seperate daemon to handle voice/video/etc streams - reusable whatever UI you use
- Protocol-independent streaming media channels exchange connection and codec candidates with your contacts
- Uses Google's libjingle for the ICE implementation
- Uses Farsight & GStreamer 0.10 for the RTP streams and codecs

Galago

- Presence framework by Christian Hammond (ChipX86)
- IM clients feed presence for your contacts into person objects (based off your address book)
- Nokia implemented a feed for presence information from Telepathy
- Fixes the separation of contacts across your different accounts - provides 1st class person objects

Nokia 770



- IM and VOIP on the Nokia 770 based on Telepathy
- Uses Gabble, VOIP Engine and Galago with Nokia UI for Chat, Call & Contacts

Other Protocols

- More connection managers are under development by the Telepathy community
- AOL/ICQ/iChat based on Joscar library
- MSN backend in Python
- SIP backend using Nokia's Sofia-SIP
- Based on the “best of breed” protocol implementations

Application Data Channels

- Mads Chr. Olesen (shiyee) working on a channel type for peer to peer application data
- Share music, collaborative editing, Tomboy...
- Will work over any extensible protocol: Jabber, MSN, Oscar...
- Summer of Code project - thanks Google!

Mission (Missing) Control

- Store your account settings and put your connections on-line
- Set the presence on all of your accounts at once
- Provide a unified interface for requesting channels with people
- Launch the right UI when channels arrive
- Respond to eg Network Manager state changes

Telepathy + Gossip = Win

- Eitan Isaacson working on making Gossip into a Telepathy client
- Gossip gains unlimited new protocol support
- Google Talk & Jingle support using VOIP Engine

What else?

- More backends...
- More channel types: Video calls, file transfers, whiteboards...
- Better client-side bindings (Tapioca guys from INdT are on the case :D)
- Adding Telepathy support wherever it makes sense: Gimmie, Deskbar, Evolution, Nautilus...
- World domination! :)

Big up the Telepathy massive!

- Wiki: <http://telepathy.freedesktop.org/>
- IRC channel: irc.freenode.net #telepathy
- Mailing list: telepathy@lists.freedesktop.org