

Communication as a Service

Telepathy and the KDE Software Compilation

George Goldberg

Akademy 2010

Tampere, Finland



Introduction

1. Introduction to Telepathy

2. Telepathy and KDE

The plan, the present and the future

3. The Flying Car Future

Plasma, Nepomuk and beyond...

What's Not Covered?

This talk will **not** cover:

- The rationale behind the design of the Telepathy Framework
- Low-level detail of the workings of the Telepathy Framework

What's Not Covered?

There have been plenty of excellent talks on these topics before. If you are interested, slides are available from:

<http://telepathy.freedesktop.org/wiki/Presentations>

1. Introduction to Telepathy

What is Telepathy?

“Telepathy is a flexible, modular communications framework that enables real-time communication via pluggable protocol backends.”

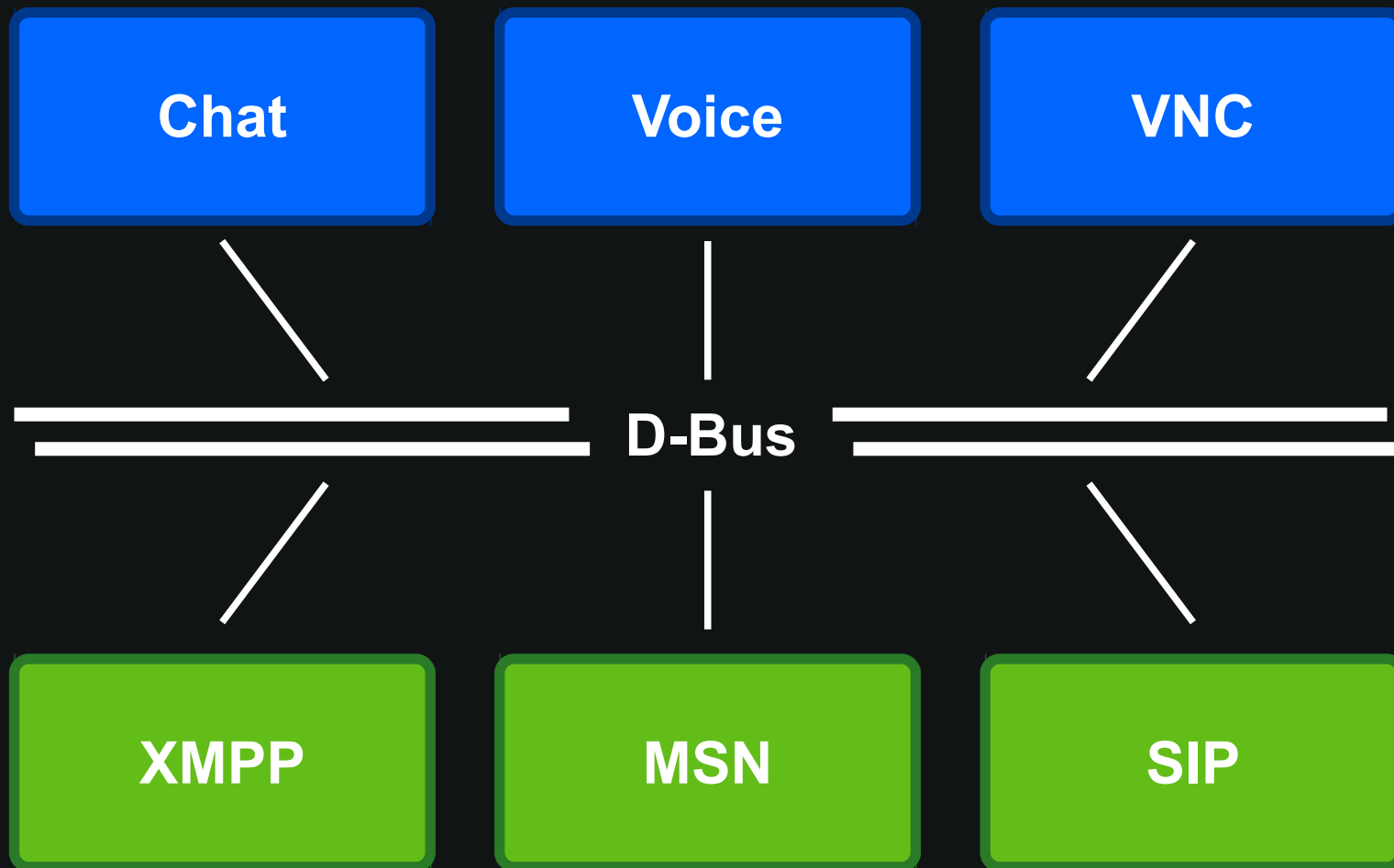
“Telepathy creates the idea of communication as a desktop service. It uses D-Bus to separate components running in separate processes. Telepathy clients use this D-Bus API (usually via a convenience library — e.g. telepathy-glib) to share connections between multiple clients (e.g. an instant messaging program, presence in email application, collaboration in word processor).”

source: <http://telepathy.freedesktop.org>

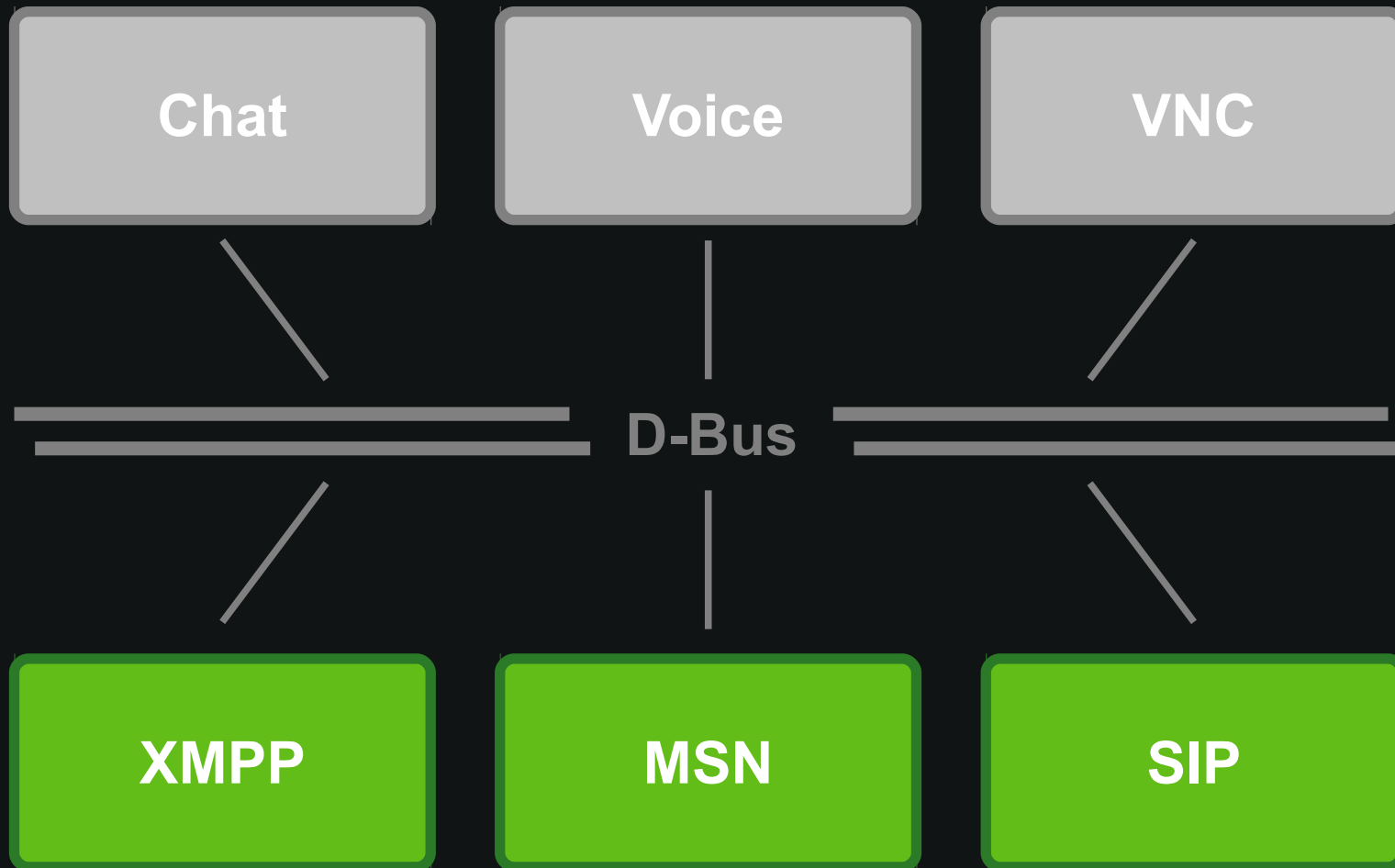
What is Telepathy?

- A Real-time Communication Framework
- A set of Standardised DBus Interfaces
- A set of components implementing those DBus Interfaces

Architecture



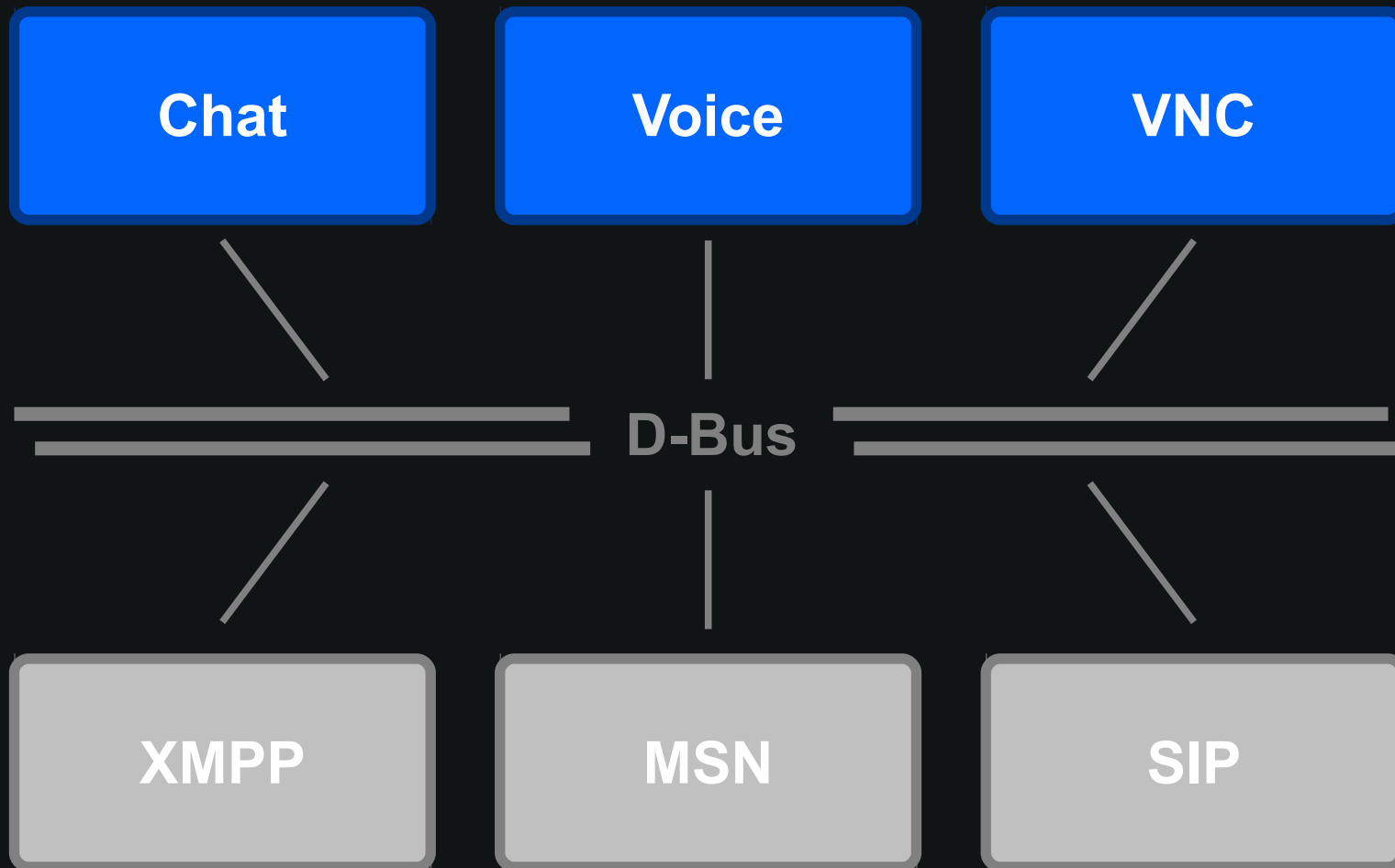
Connection Managers



Connection Managers

- Connect to the IM network
- Make connections available over DBus
- Only one connection to each IM account

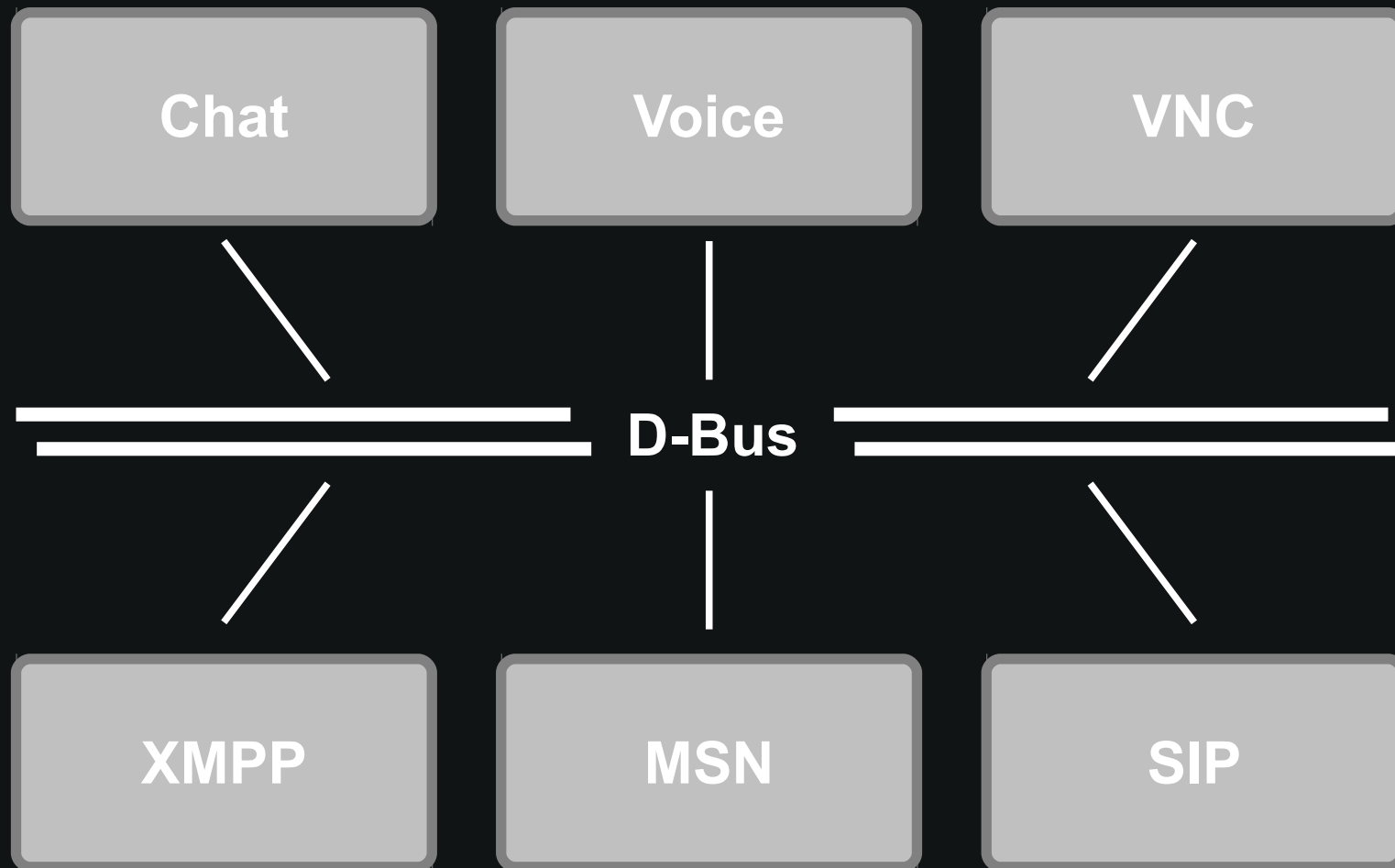
Clients



Clients

- Do stuff!
 - Text Chat
 - Voice/Video
 - File Transfer
 - VNC
 - ...

Account Manager and Channel Dispatcher



Account Manager

- Service to store account information
- Centralised storage of user names, passwords etc.
- Storage to Freedesktop.org shared secrets compatible store (KWallet etc)

Channel Dispatcher

- Service between CMs and Clients
- Request a communication channel to a contact
- Pass an incoming communication channel to the appropriate client

What Can Telepathy Do?

- Text Chat
- Voice and Video Chat
- File Transfers
- Tubes
- ...

Tubes

- Two types of tube:
 - **Stream Tubes** (TCP Socket over IM)
 - **DBus Tubes** (DBus over IM)

2. Telepathy and KDE

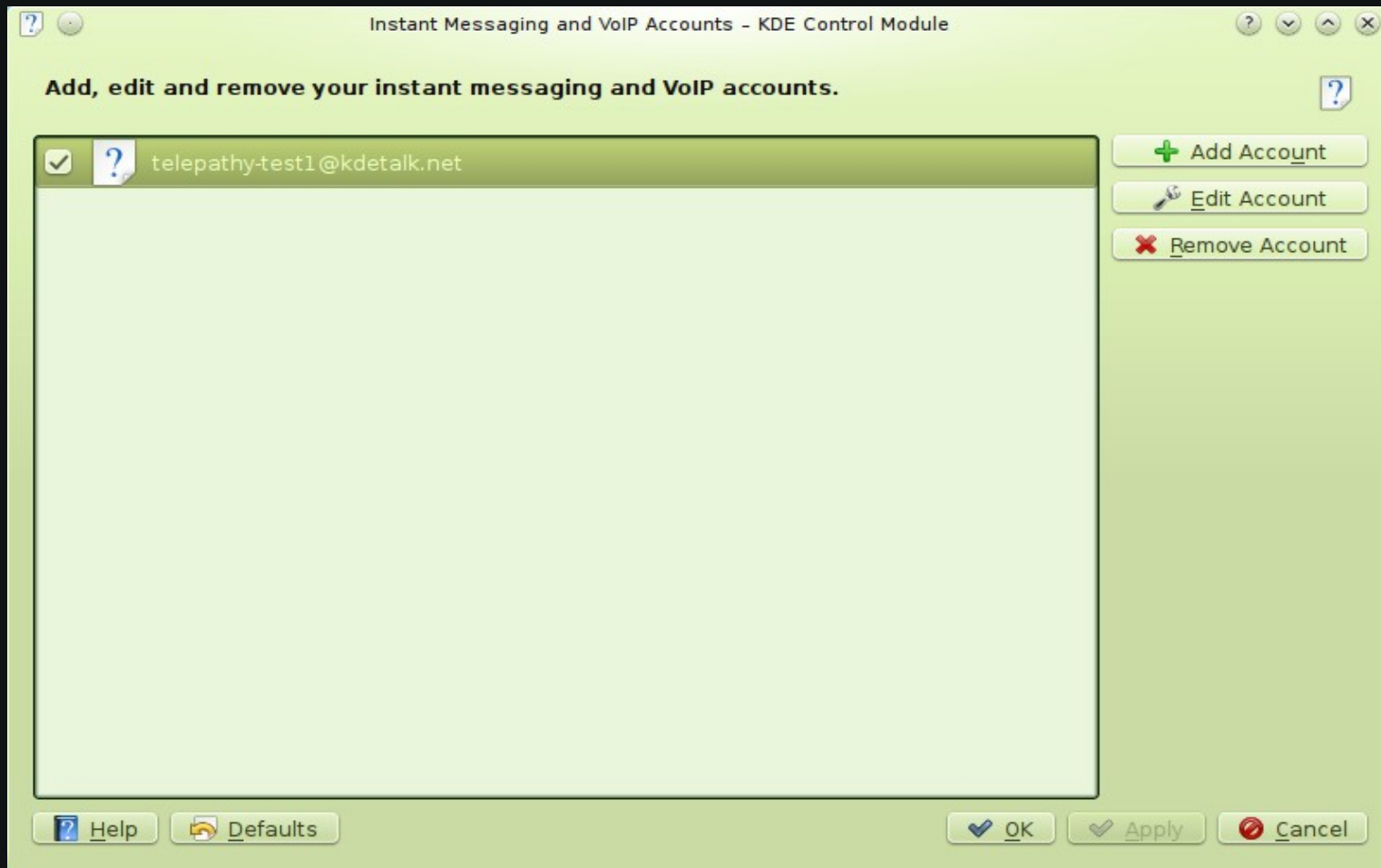
It's been a long time in coming...

The Plan

- Focus on unique features
- Reuse existing Telepathy components
- Provide convenience API and reusable widgets
- Deep integration

First, the basics...

Accounts UI



Accounts UI

KDE Control Module

Step 2: Fill in the required Parameters.

Basic setup | Account preferences | Connection settings < >

Jabber ID:

KDE Control Module

Step 2: Fill in the required Parameters.

Basic setup | Account preferences | Connection settings < >

Server Settings

Server Address:

Server Port:

Connection Settings

Keep Alive Interval:

Use Low Bandwidth Mode.

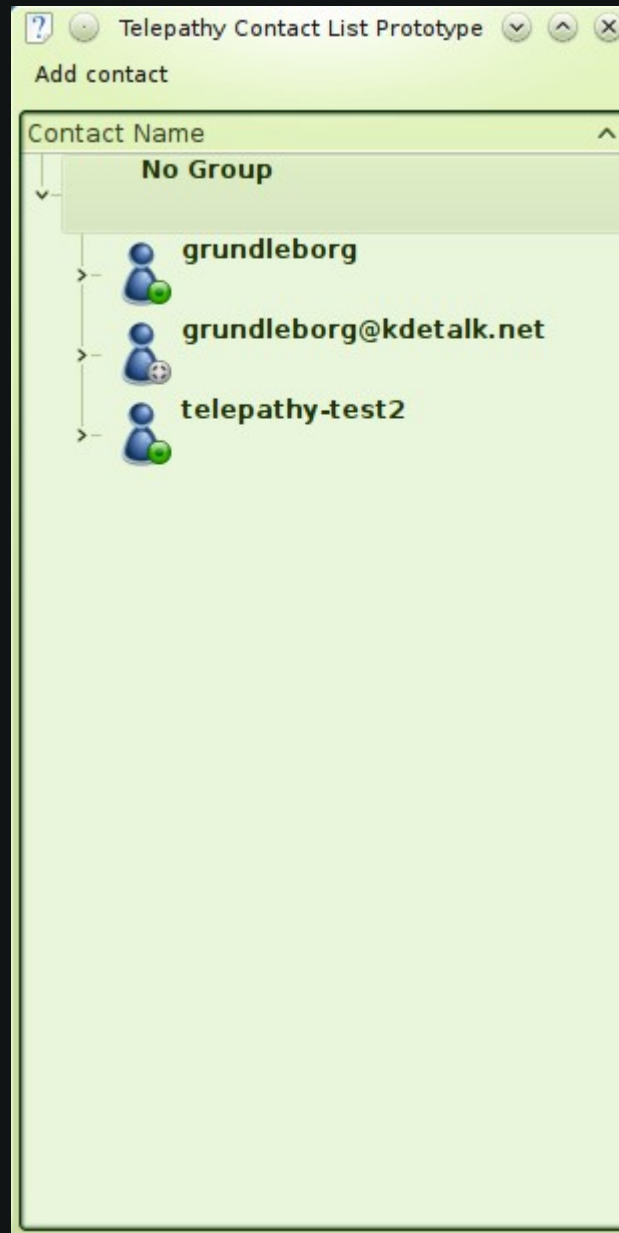
Security Settings

Require Encrypted Connection.

Ignore SSL Errors.

Use Old-Style SSL.

Contact List

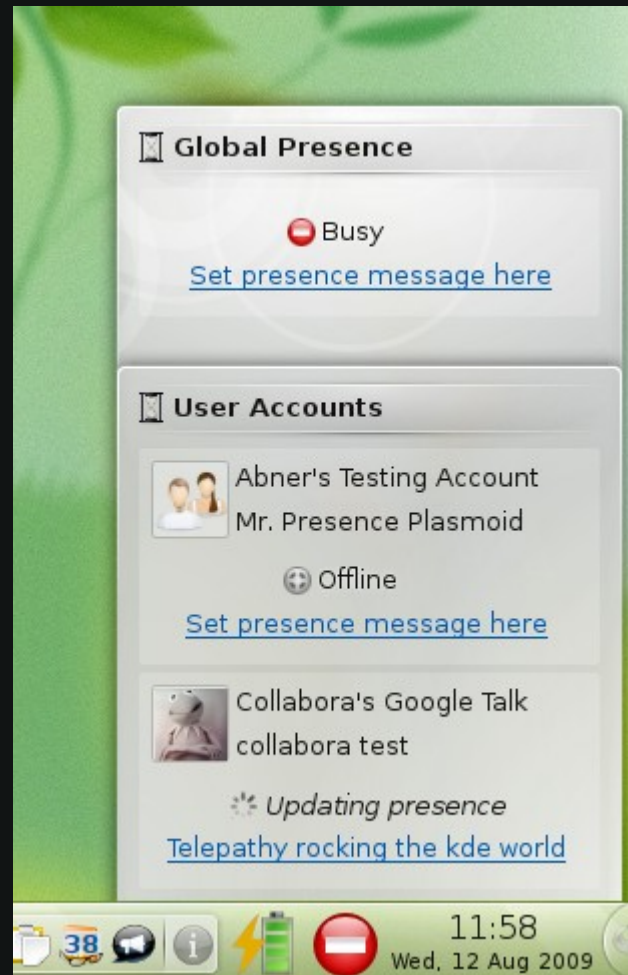


Text Chat UI

Sorry, still under construction...

But, in the meantime you can use Kopete with the
Telepathy Protocol Plugin.

Presence Plasmoid



UI Designers, we (obviously)
need your help!

Nepomuk for Contact Storage

Nepomuk is a key component of our Telepathy integration.

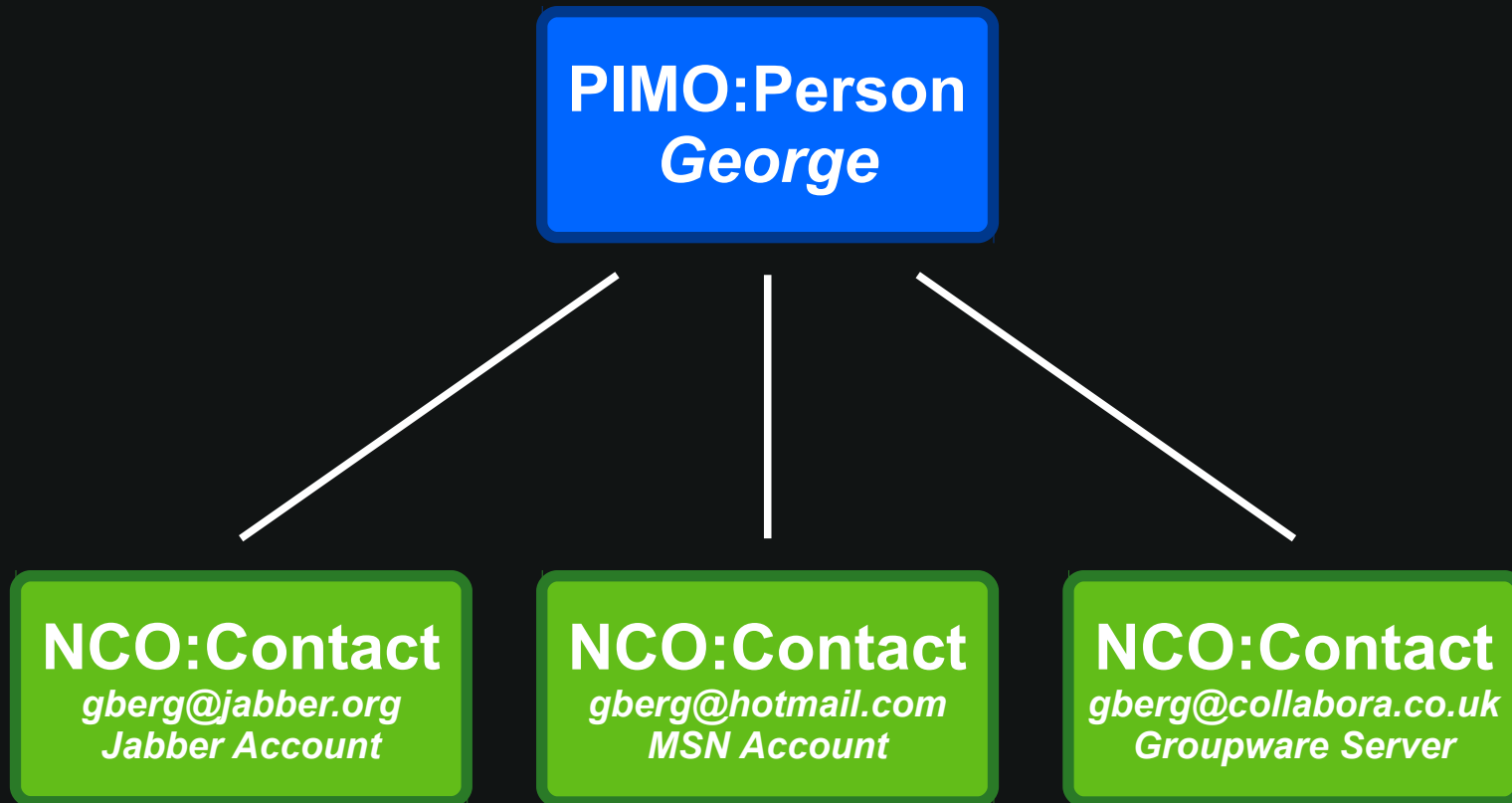
“Meta-Contacts” should not be limited to instant messaging applications. They should be replaced by the desktop-wide concept of “People”.

Nepomuk makes this possible.

Nepomuk for Contact Storage

- We make use of two ontologies:
 - PIMO – to represent a real person
 - NCO – to represent a contact, ie. a single address book/buddy list entry for a person
- One person can have multiple contacts

Nepomuk for Contact Storage



The Future

- Deeper integration with applications:
 - Plasma?
 - Kontact?
 - KOffice?
 - KDE Games?
 - ...

The Future

- More advanced features:
 - Collaboration
 - Voice/Video
 - Conferencing

3. Flying Car Future

Nepomuk

- Sharing of meta-data is a logical next step for Nepomuk
- XMPP based protocol for meta-data interchange
- Nepomuk service acting as a Telepathy client to handle Meta-Data channels.

Nepomuk

Related Google Summer of Code project by
Vishesh Handa

Plasma People

- Why not have a Person as a Plasmoid?
- You can:
 - See their picture
 - Easily contact them in many ways, or interact with them, or play games with them...
 - Look up your chat history, shared documents, game stats...

Conclusion

- We have:
 - Basic IM components
 - Lots of CMs, an AM and a CD
 - An API and Widgets for use in applications
 - Lots of cool ideas

Conclusion

- We need:
 - Advanced communication and collaboration features
 - Better user interfaces
 - Deeper integration and adoption in other applications

The Workshop

Wednesday

14:00 -> 18:00+

Area 3

Questions?

And finally, **free T-Shirts!!!**