History  “The Missing Link”

- Spare time project since 2006, full-time since 2009
- Initial focus SyncML, both over the air and directly over Bluetooth
- “Local Sync”: connects two backends
  - CalDAV/CardDAV
  - ActiveSync
- PIM storage backends: Evolution, plain files, QtContacts/KCal (Nokia N9), Akonadi (experimental), XMLRPC
- Different frontends: GTK UI, command line, Qt (experimental)
CalDAV/CardDAV + ActiveSync + PBAP + …

SyncML + vCard/iCalendar
via direct D-Bus connection

syncevo-dbus-server

libneon

WebDAV
vCard, iCalendar

CalDAV/CardDAV Server

SyncML + vCard/iCalendar
via direct D-Bus connection

syncevo-local-sync

EDS

activesyncd API + vCard/iCalendar/email
via D-Bus daemon

Local Machine (Desktop, Netbook, Phone)

Evolution

libcamel

ActiveSync
WBXML

Exchange

activesyncd

libsoup

Local Machine (Desktop, Netbook, Phone)
EDS Improvements

- Store and pass photos as files, managed by EDS
- Avoid redundant item parsing
- Global DB revision string (similar to CTag in DAV)
- Retrieve item meta data for change detection in sync
http://syncevolution.org

In development:
• Better local sync
• syncevo-dbus-server rewrite
• Automatic syncing
• PBAP backend (BMW CarIT)

Needs help:
• KDE
• Google Data API
• GTK UI

Getting Involved
PIM Sync Challenges:

It can eat your data?!
Synthesis

• Swiss company with >10y experience with SyncML, owned by the two main developers

• Synthesis SyncML Engine:
  • C++ implementation of client and server, data merging and conversion
  • LGPL 2.1+3.0
Over The Air Sync

SyncML – Freedom of Choice, No Vendor Lock-In

SyncML Server
Google, ScheduleWorld, Funambol, Memotoo, Mobical, Synthesis, ZYB ...

SyncML (OMA DS): protocol vCard/vCalendar/iCalendar: payload

SyncEvolution - Sync PIM (Contacts, Events, Tasks, Notes)
1. No globally unique ID.
2. Different representation of data.
3. Offline updates allowed: what is the most recent data?
4. Must support standard formats, including legacy ones (vCalendar).
5. Must work with limited knowledge about peers (capabilities, behavior).
SyncML as Protocol

• “slow sync” – client sends all items, server compares, sends updates back
• “normal sync” – exchange of updates
• Resilient – suspend&resume (voluntarily or due to loss of connection), resend messages
• Device Capability description
Usage

- **Command line:**
  
  ```bash
  syncevolution  --configure \
  --sync-property username=foo \
  --sync-property password=bar \
  scheduleworld
  
syncevolution  scheduleworld
  syncevolution  --sync-properties ?
  syncevolution  --source-properties ?
  ```

- **Applet: Genesis, by Frederik Elwert**

- **GTK GUI ("sync-ui")**
Sync-UI: Setup

Supported services
To sync you'll need a network connection and an account with a sync service.
We support the following services:

- Memotoo - Launch website
- Mobical - Launch website
- ScheduleWorld - Launch website

ScheduleWorld enables you to keep your contacts, events, tasks, and notes in sync.

Username: ku@goto.fi
Password: ********

Send changes to ScheduleWorld: On
Receive changes from ScheduleWorld: On

Sync
- Contacts: On
- Memo: Off
- Appointments: On
- Tasks: Off

Manual setup
If you don't see your service above but know that your sync provider uses SyncML
you can setup a service manually.

Add new service
Sync-UI: Houston, we’ve got a problem.

**ScheduleWorld**

Failed to login. Could there be a problem with your username or password?

- **Appointments**
  Last time: No changes.

- **Contacts**
  Last time: No changes.

- **Memo**
  Last time: No changes.

- **Tasks**
  Last time: No changes.

**Sync failed**

**Actions**

- Sync again
- Change or edit sync service
- Fix a sync emergency
Sync-UI: We’ve got a solution.

If something has gone horribly wrong, you can try a slow sync, start from scratch or restore from backup.

- Affected data: ScheduleWorld Appointments, Contacts, Tasks, Memo

**Slow sync**

A slow sync compares items from both sides and tries to merge them. This may fail in some cases, leading to duplicates or lost information.

**Start from scratch**

- Delete all your local data and replace with data from ScheduleWorld
- Delete all data on ScheduleWorld and replace with your local data

**Restore from backup**

Backups are made before every time we Sync. Choose a backup to restore. Any changes you have made since then will be lost.

- Restore backup from before syncing with scheduleworld on 01/27/2010 03:46:56 PM
- Restore backup from before syncing with scheduleworld on 01/27/2010 05:58:15 PM