



**OpenChange and KDE**



## **Working with Microsoft Exchange Protocols**



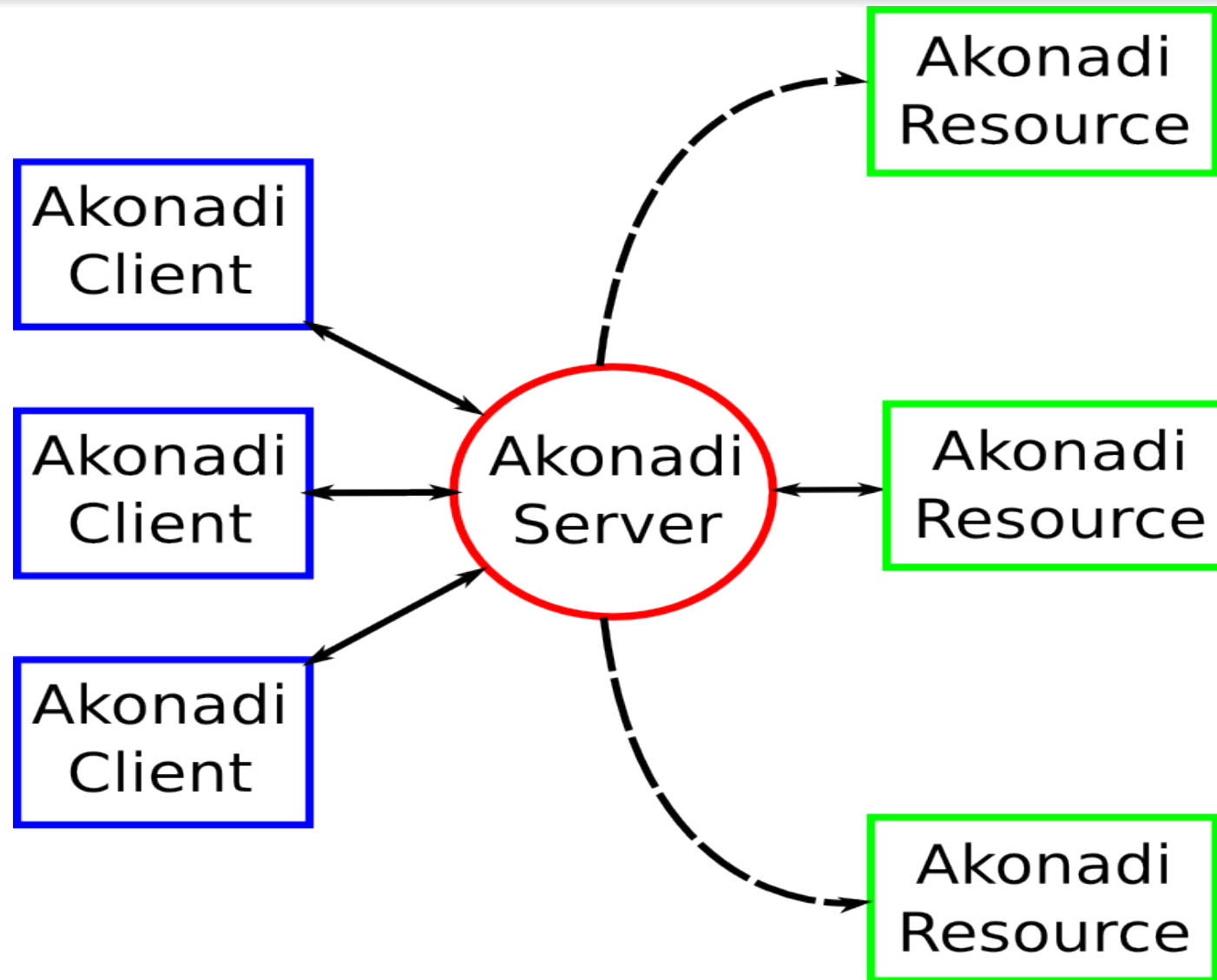
**Akonadi**



- **Grew out of KDE PIM work**
- **Not just for mail**
- **KMail is a maintainability problem**
- **Akonadi separates the network part from the UI part**
- **Akonadi provides concurrent access**
- **Not Qt or KDE specific**



# Akonadi Architecture





**OpenChange**



- **Project to implement Microsoft Exchange protocols**
  - **“as used by Outlook”**
  - **Free, Open Source Software**
  - **Client and server side**
  - **Built on Samba4**
  - **Mail, Contacts, Calendar, Notes, Journal, Public Folders, Free/Busy...**



**OpenChange Client side**



- **C libraries and client utilities**
- **Maturing well**
- **OpenChange Property Files**
- **Mainly the work of Julien Kerihuel**
- **Contributions by Jelmer Vernooij, Dan Shearer, GSoC students (Alan Alvarez, Yangyang Li) and others.**

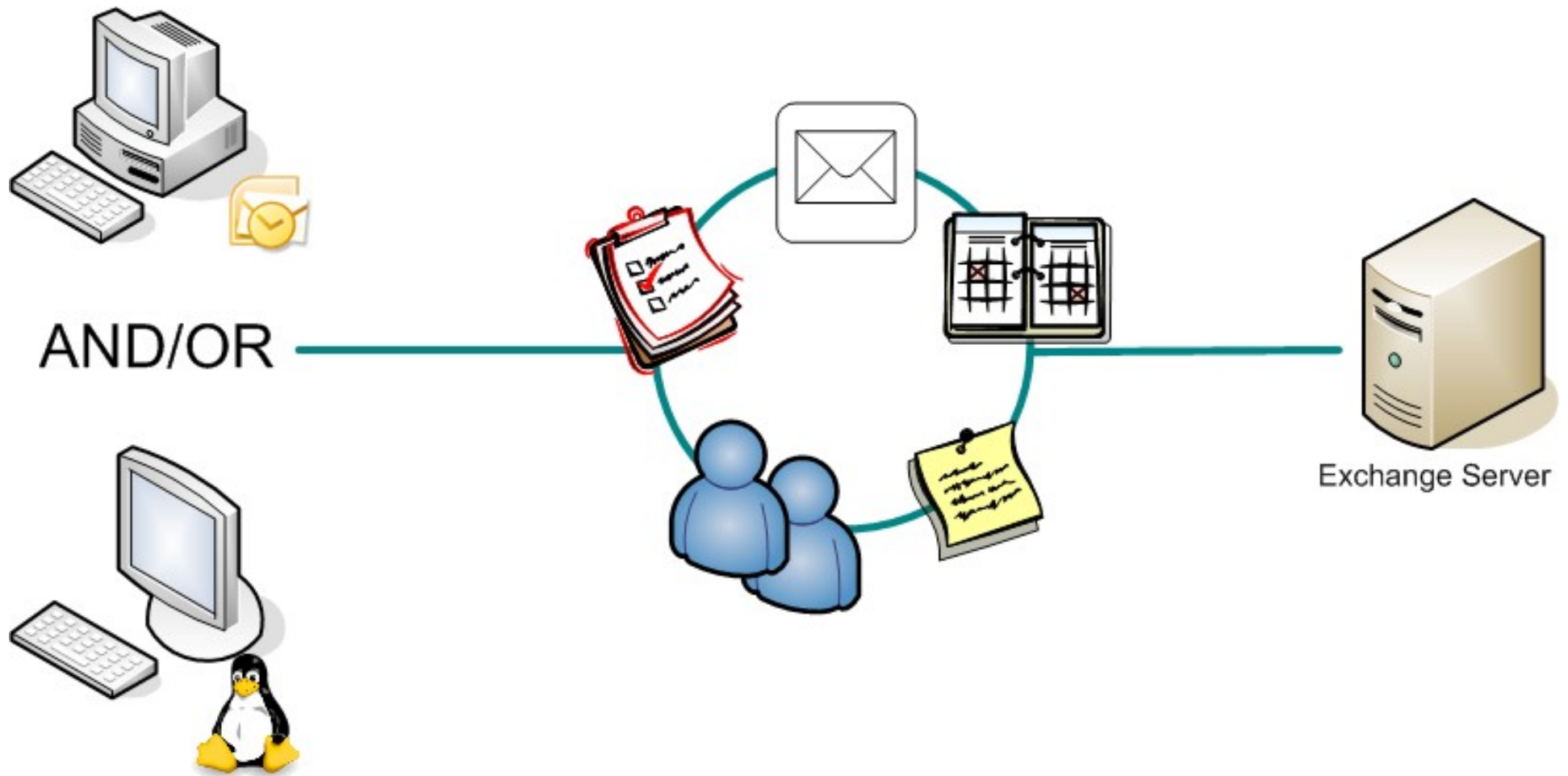


# Why OpenChange?



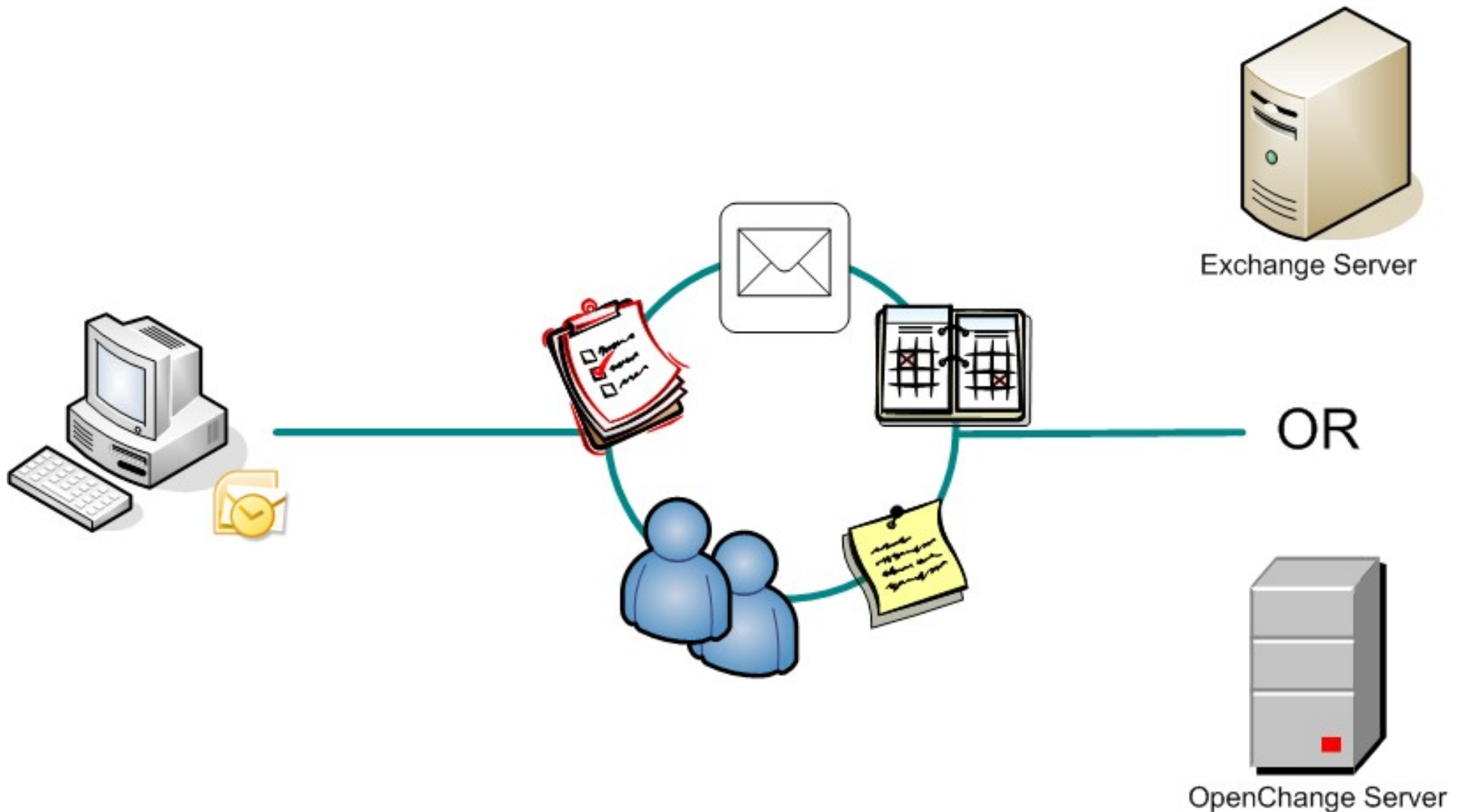


# Why OpenChange?





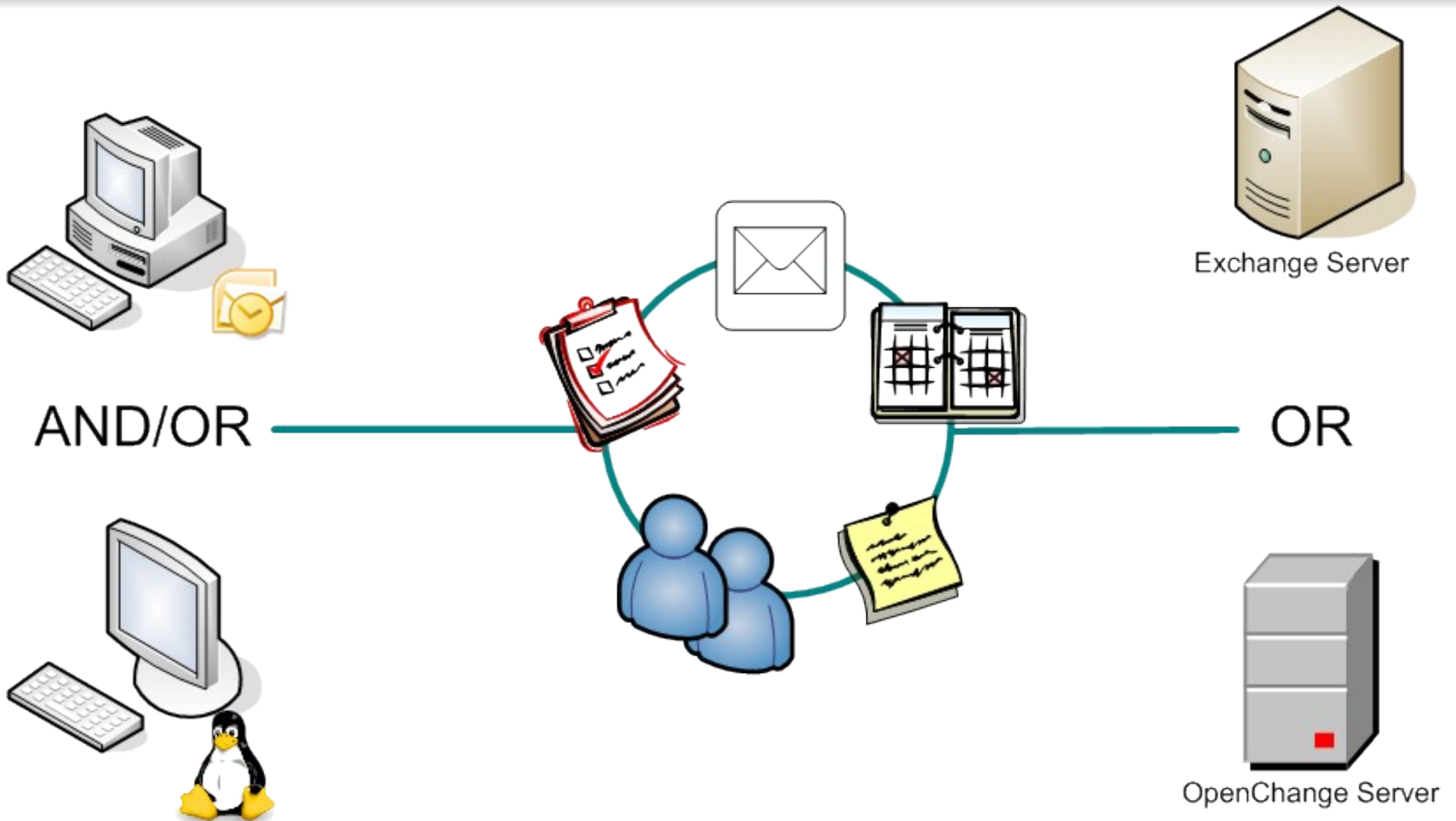
# Why OpenChange?



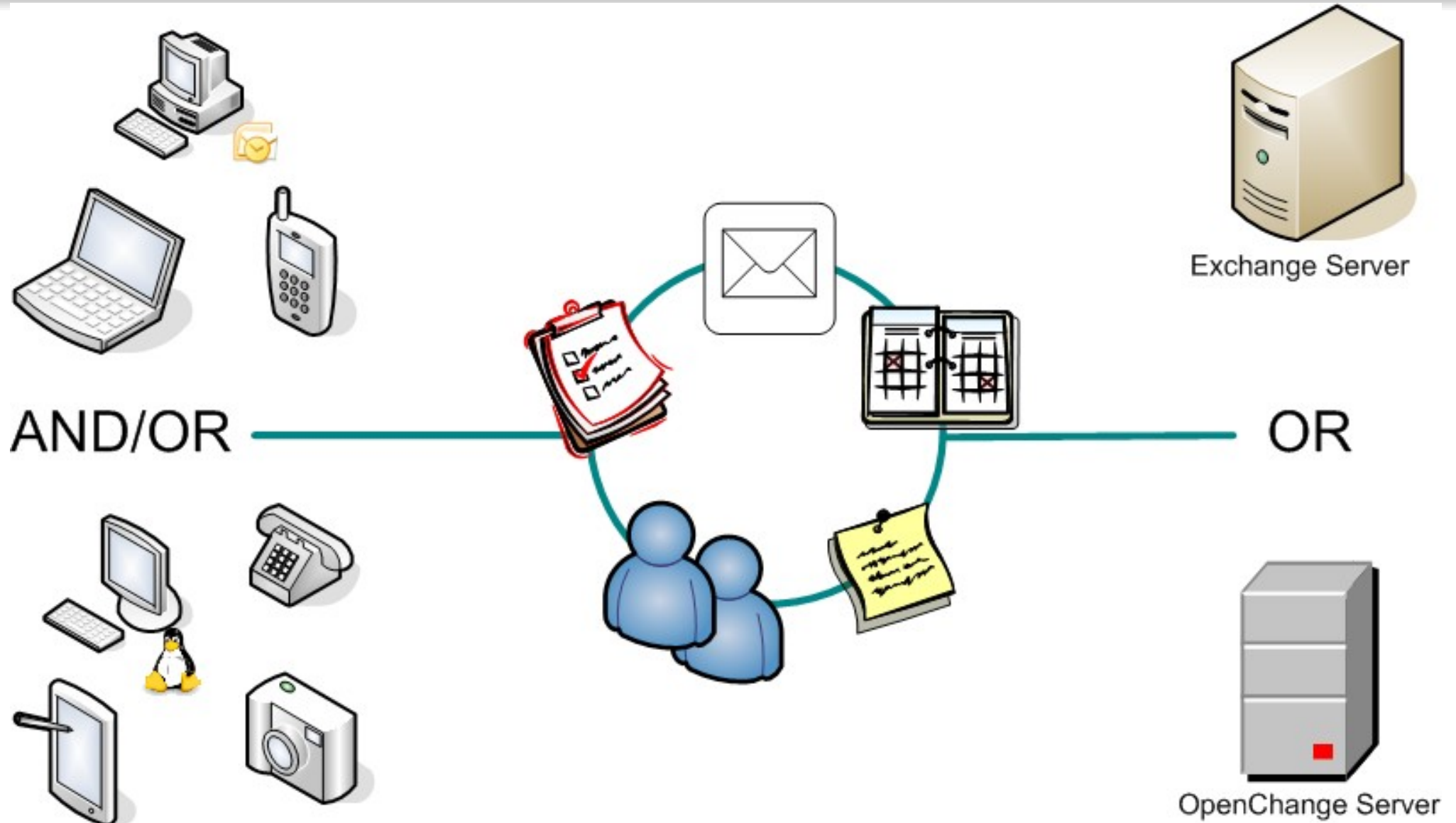




# Why OpenChange?



# Why OpenChange?





Clients



- **Command line tools**
  - **Provided with OpenChange**
  - **Usable now**
- **Evolution**
  - **Substantial commitment by Novell**
  - **Licensing issues now resolved**
- **KDE / Akonadi**

File Edit View Folder Message Search Help

New Send / Receive Reply Reply to All Forward Print Delete Junk Not Junk Cancel Previous Next

Inbox 1802 unread, 1911 total Show: All Messages Search: Subject or Sender conta in Current Folder

On This Computer

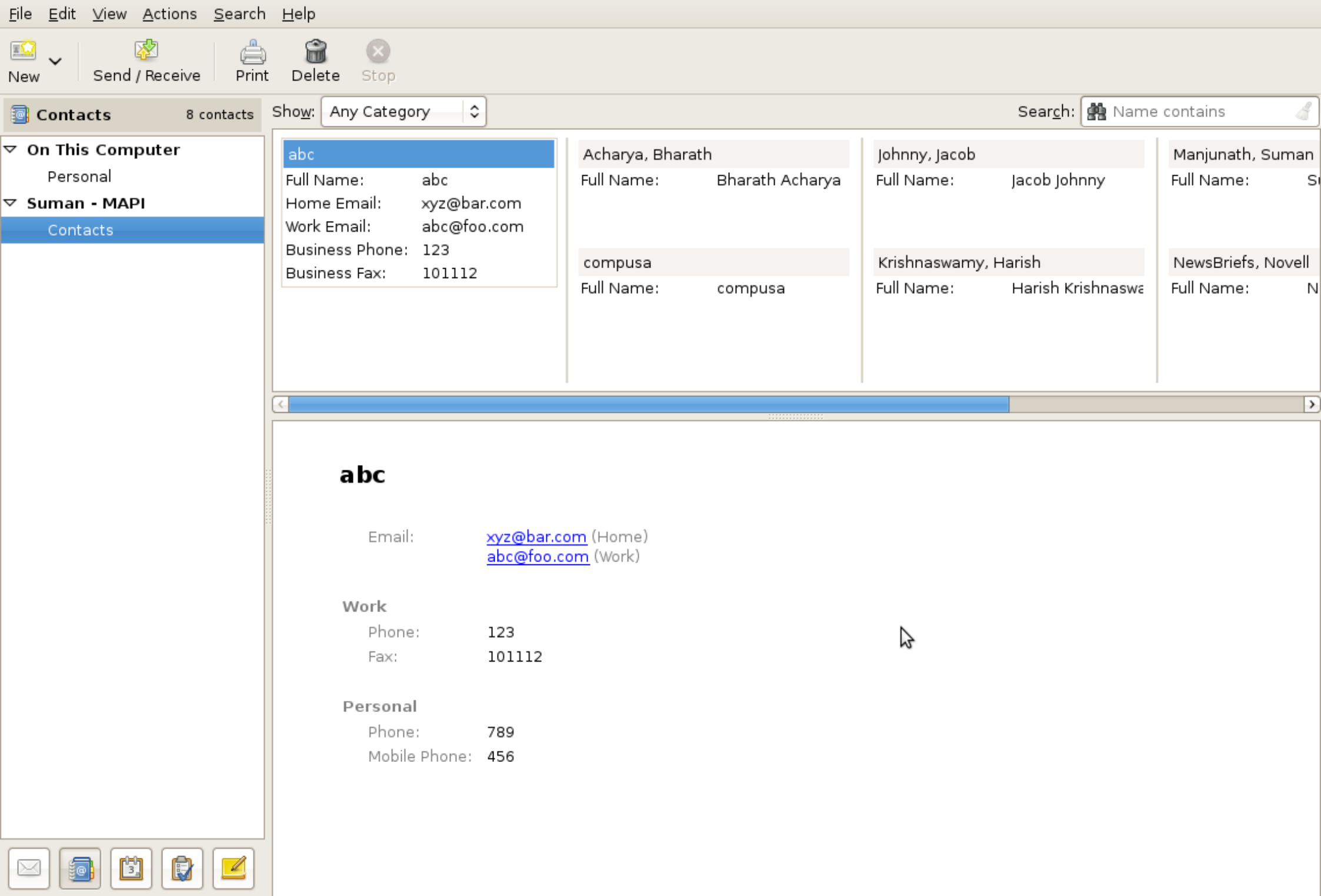
Suman - MAPI

- Favourites
- Mailbox - Suman M
  - Inbox (1251)
  - Deleted Items (62)
  - Drafts
  - Junk E-mail
  - Outbox (3)
  - Sent Items
  - Sync Issues

From	Subject	Date
Bharath Acharya	new task for bharath after GAL l...	Feb 20 1:42 PM
Bharath Acharya	new task for bharath alone	Feb 20 1:40 PM
KVBV Prasad	meeting-except -that-freebusy-was-ch...	Feb 19 11:56 AM
Veerapuram Varadhan	meeting-except -that-freebusy-was-ch...	Feb 19 11:53 AM
Bharath Acharya	meeting-except -that-freebusy-was-ch...	Feb 08 1:19 PM
Bharath Acharya	bharath doesn't have auto-move tent...	Feb 08 1:19 PM
Administrator	Exchange 2007 server is ready !!	Nov 06 2007
jeremy@linuxfromscratch.org	cvs commit: ALFS/profiles/LFS/scripts ...	Aug 26 2006
jeremy@linuxfromscratch.org	cvs commit: ALFS/profiles/LFS/scripts ...	Aug 26 2006
James Robertson	cvs commit: ALFS/DTD ALFS-3.1.dtd A...	Aug 26 2006
jeremy@linuxfromscratch.org	cvs commit: ALFS/profiles/LFS/scripts ...	Aug 26 2006
kp Fleming <kp Fleming@linuxfromscratch.org>	cvs commit: ALFS/nALFS CHANGE...	Aug 26 2006
kp Fleming <kp Fleming@linuxfromscratch.org>	cvs commit: ALFS/nALFS bootstr...	Aug 26 2006

From: Administrator <Administrator>  
 Reply-to: Administrator <Administrator>  
 To: Administrator <Administrator> , Bharath Acharya <Bharath Acharya> , Jacob Johnny <Jacob Johnny> , KVBV Prasad <KVBV Prasad> , Suman M <Suman M>  
 Subject: Exchange 2007 server is ready !!  
 Date: Tue, 06 Nov 2007 10:32:05 +0000 (16:02 IST)

Welcome mail .  
 Evolution will rock with exchange 2007.....Best wishes :)



FileEditViewActionsSearchHelp

NewSend / ReceivePrintDeletePreviousTodayNextGo ToDayWork WeekWeekMonthList

CalendarsFriday 26 Dec 2008

Show: Any Category

Search: Summary Contains

On This Computer

☐ Personal

Contacts

☐ Birthdays & Anniver...

Suman - MAPI

☒ Calendar

☐ recur-appt

December 2008

Mon	Tue	Wed	Thu	Fri	Sat	Sun
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

Friday 26 December

9<sup>00</sup>

10<sup>00</sup>

11<sup>00</sup>

12<sup>00</sup>

13<sup>00</sup>

14<sup>00</sup>

15<sup>00</sup>

16<sup>00</sup>

17<sup>00</sup>

18<sup>00</sup>

19<sup>00</sup>

20<sup>00</sup>

21<sup>00</sup>

14:30

new appointment using the MAPI provider

Tasks

☒ Summary

Click to add a task

☐ task in Ol with reminder

☒ completed task

☐ no start no end

☒ test task

☐ test task

☐ new task - can I modify the start/end d...

☐ test task to multiple recipients

Memos

☒ Summary

Click to add a memo

☒ new memo using the MAPI provider



## Receiving Email

Please select among the following options

Server Type:

Exchange MAPI

Description: For accessing Microsoft  
Exchange / OpenChange servers  
using MAPI

### Configuration

Server:

novell-ops.ray.com

Username:


suman


Domain name:

ray.com

Authenticate

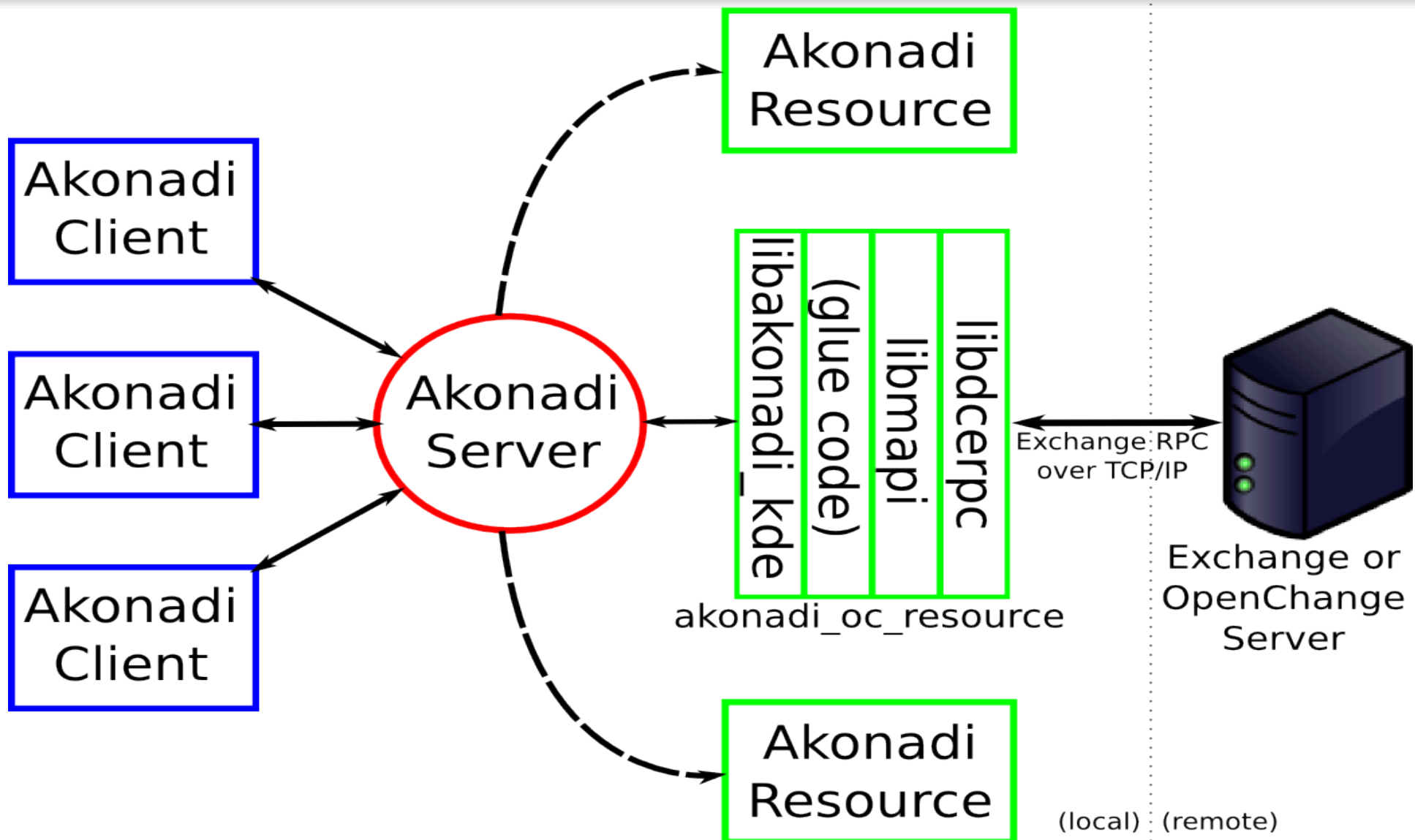
 Cancel

 Back

 Forward



# Akonadi and OpenChange







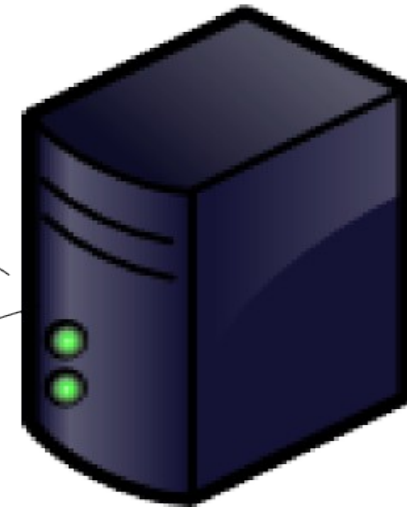
Demos



Windows XP +  
Outlook



Fedora 9  
OpenChange + Akonadi  
192.168.244.2



Microsoft Exchange  
192.168.244.20  
SBS2003.local



**Future**



- **Both KDE and OpenChange could really use some help:**
  - **Development**
    - **Gnome API for Akonadi**
    - **Missing features, bugs...**
  - **Testing**
  - **Infrastructure**
    - **OpenChange test servers**



ObLinks



- <http://www.openchange.org>
- [#openchange](#) (on Freenode)
- <http://techbase.kde.org>
- <http://pim.kde.org/akonadi/>
- [#akonadi](#) / [#kontakt](#) (on Freenode)



Technical



- **Complete OpenChange client libraries**
- **Implement OpenChange servers**
- **More work on OpenChange proxy**
- **Finish Akonadi**
- **Complete OpenChange remote ops**
- **Improve Akonadi OpenChange resource**

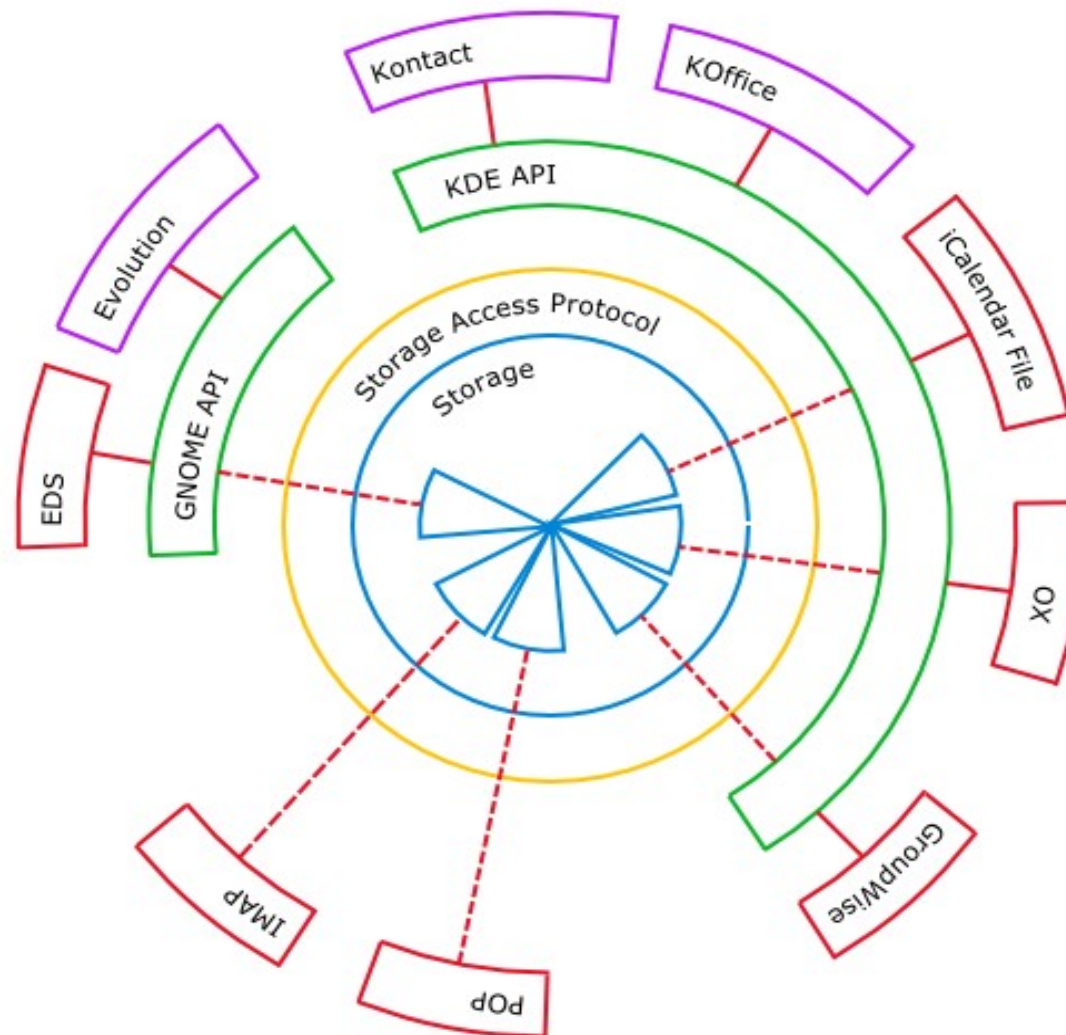


**Backup Slides**



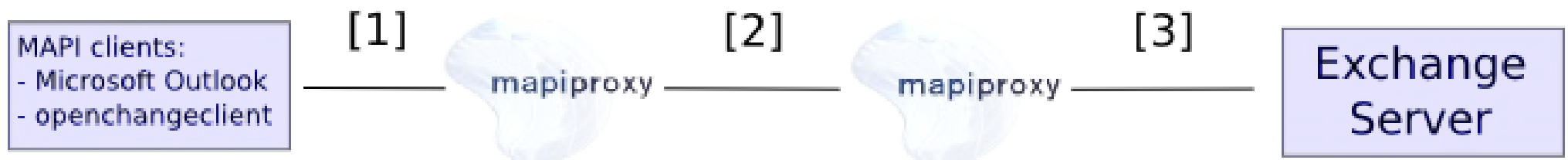


# Original Akonadi Concept



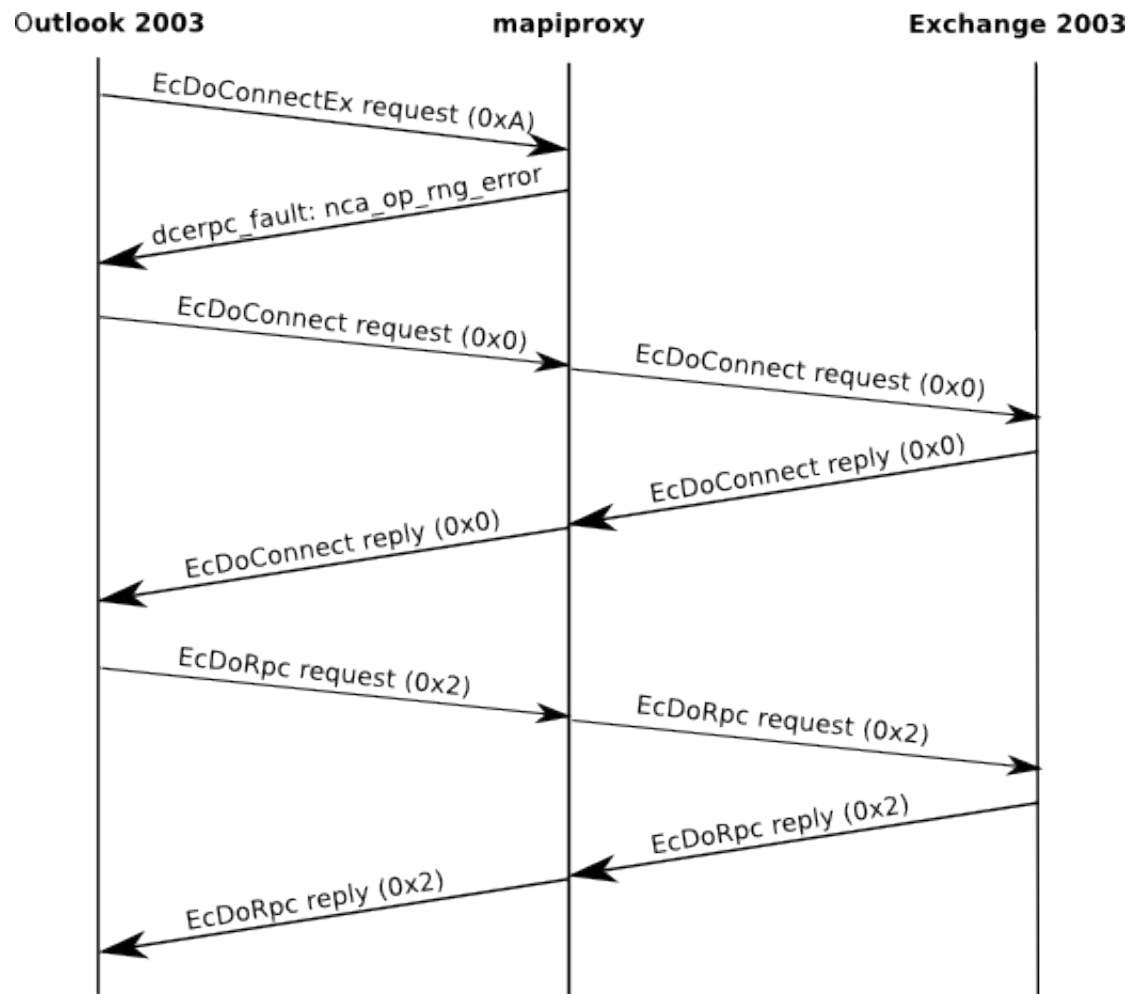


# Mapiproxy





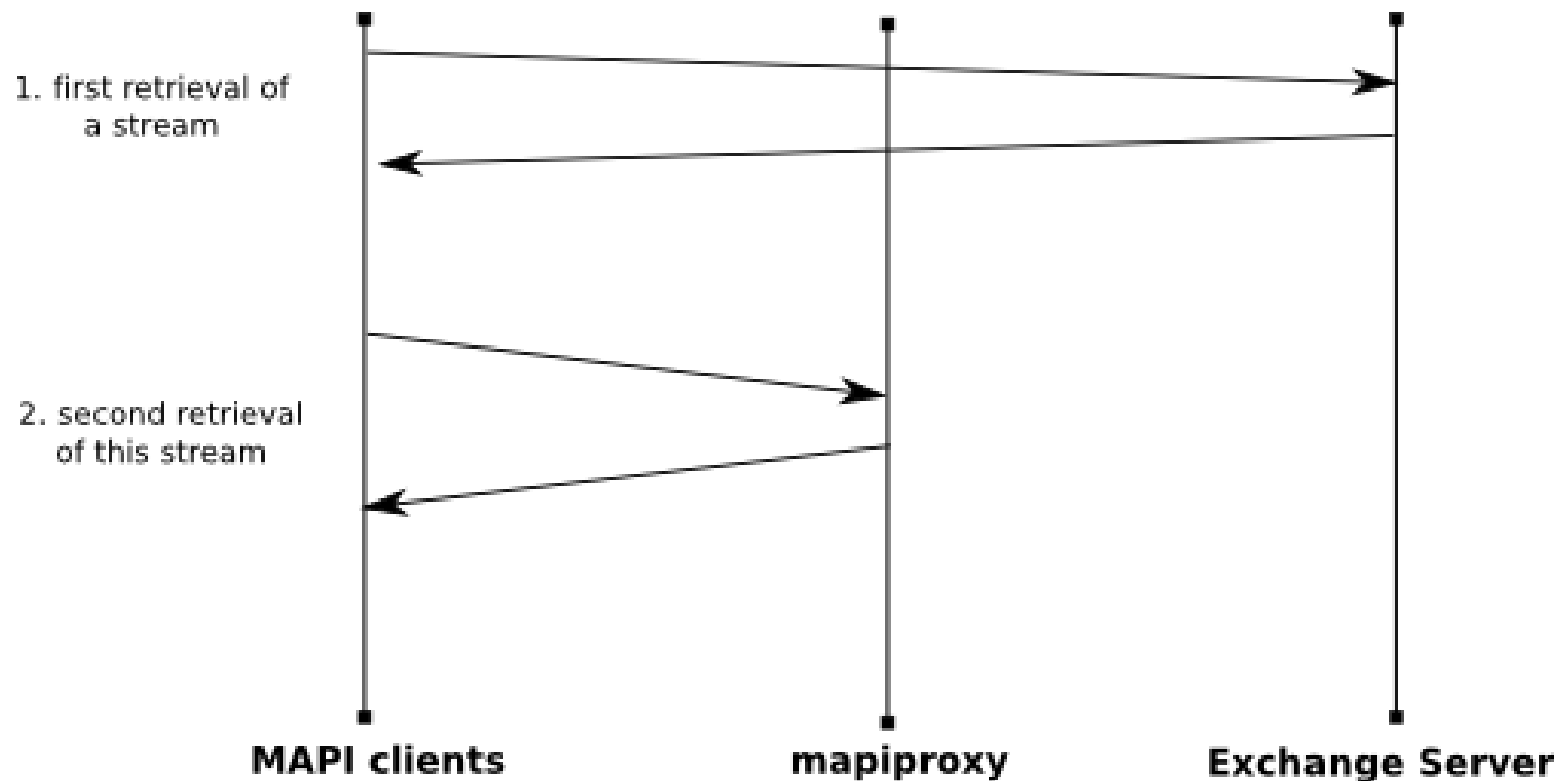
# Downgrading (E2K7->E2K)





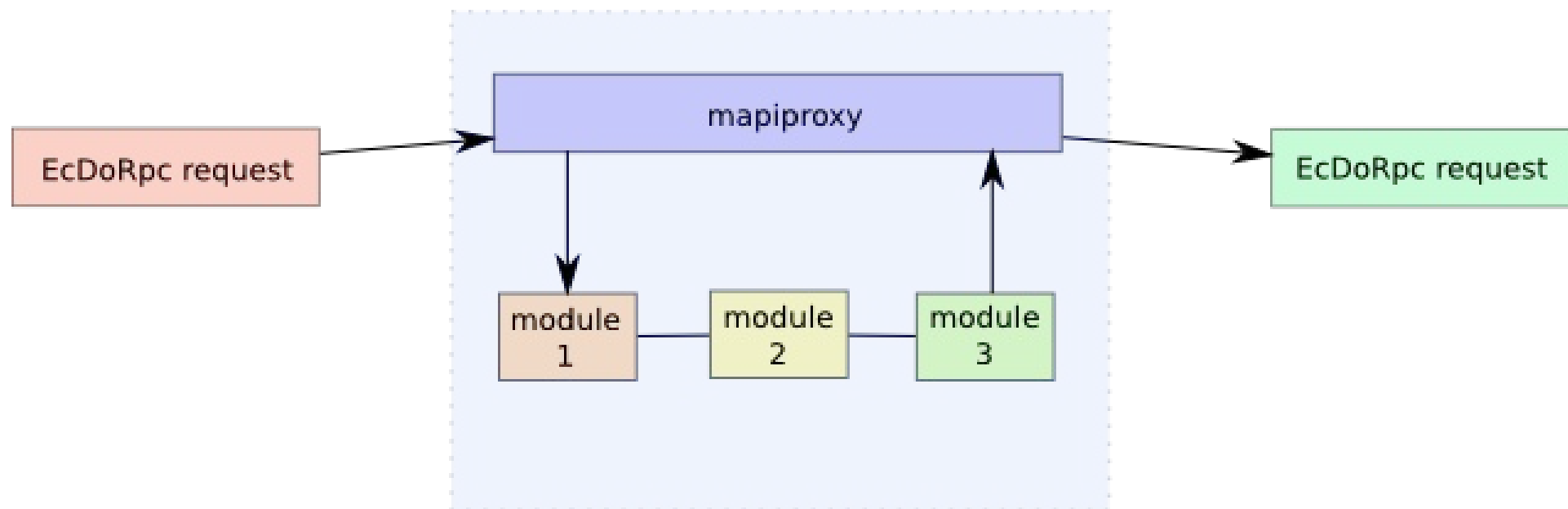


# Caching Proxy





# Stacked Modules

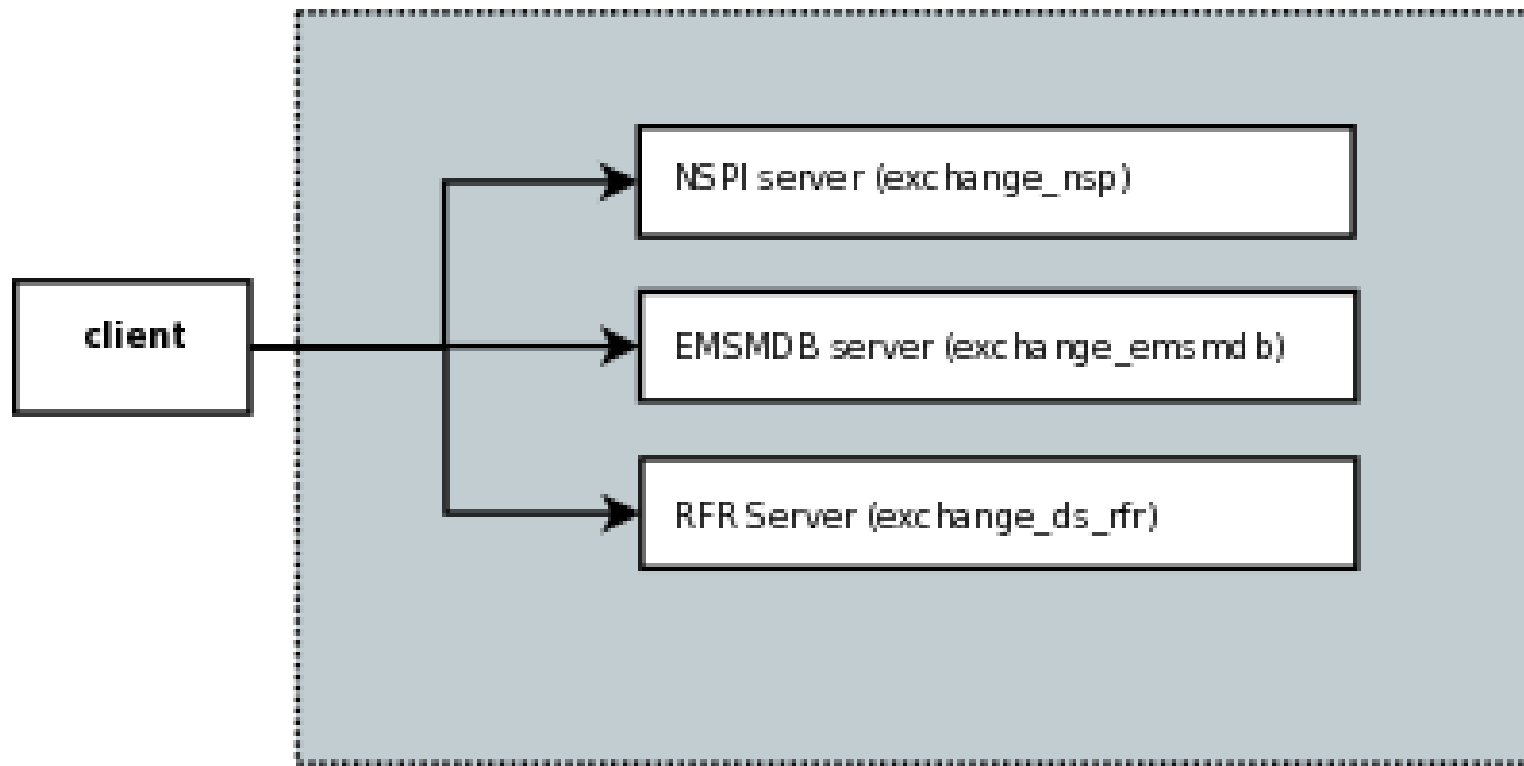




# Mapiproxy (Server)



`dcerpc_mapiproxy:server = true`



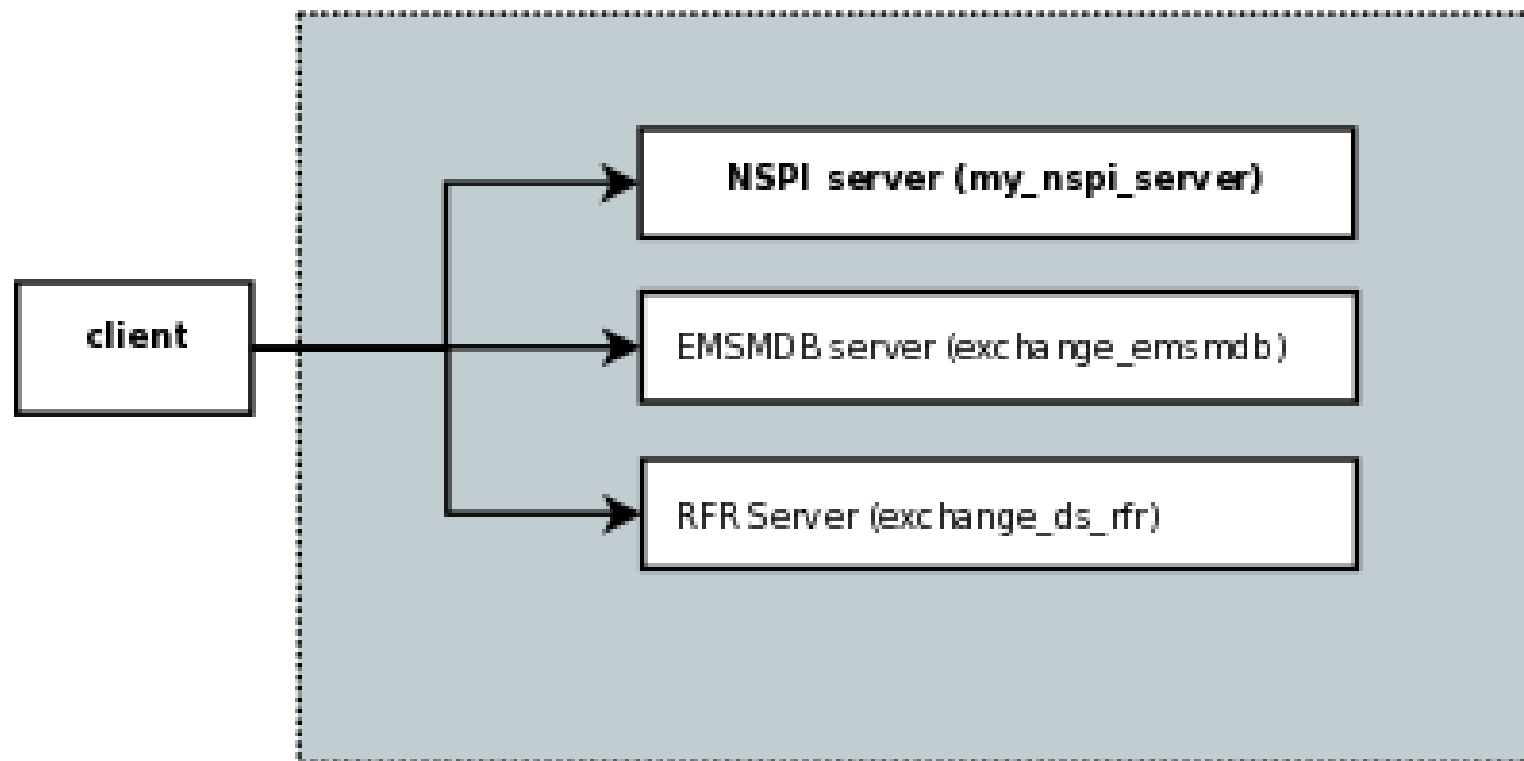
MAPIProxy Instance



# Mapiproxy (Custom server)



```
dcerpc_mapiproxy:server = true  
dcerpc_mapiproxy:nspi_server = my_nspi_server
```



MAPIProxy Instance



# Mapiproxy (Proxy/Server)



```
dcerpc_mapiproxy:server = false  
dcerpc_mapiproxy:nsapi_server = exchange_nspi
```

