LiMux – free software in Munich

11.2007

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Agenda

Munich's IT world

The history of the LiMux project

The LiMux basic operating system

The infrastructure of a basic operating system

The business applications

The migration to OpenOffice

The LiMux project in the city council

The migration in the departments

Next steps and contact

The IT situation in Munich's administration

Technical

- ~ 14,000 PCs, 16,000 users

- MS Windows NT 4 and Office 97/2000

- ~ 170 business applications (not including base applications)

- ~ 300 software products

- Different file services

- Centralized and distributed directory services

- Different products for system and config management and software distribution

- Different MS Office solutions for template and text module management

- Only e-mail and LDAP is one and the same

Organizational

- 17 units running their own IT

- 850 IT staff members

- 120 project members

- Centralized steering for strategy and procurement

- Decentralized planning and operating

- Different operating and support concepts

- 12 departments with different infrastructure

- No common standardized procedures

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Why are we forced to migrate?

Microsoft stopped support for NT4

- New software versions only for current operating systems

- New hardware is only supported by new operating systems (eg USB)

► Migration to

- Successor of NT4 or

- Different platform

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Main decisions 2003

Free software (Open Source) for the operating system and office

New client/server applications will be developed or with web-based accsess

►Thus

- More independence from software producers

- More equality of opportunities

- More competition in the software market

- Complete open source code (maintenance, security)

- Middle term monitoring of costs (reduction)

- Better protection from virus attacks

To LiMux or not To LiMux ...? (The way of decisions)

Preliminary study

- 2001: City council demands examination of alternatives to MS

- 2002: City council authorizes the IT administration to carry out a preliminary study

- 2002/2003: Preliminary study with the company Unilog

Detailed conception

- 2003: City council authorizes the IT administration to initiate a detailed concept

- 2003/2004: Detailed concept developed with IBM and SuSE/Novell

- 2004: IT Administration gives the task to realize migration

Migration

- 2005: Project preparation phase including first tenders

- 2006 – 2009: Conversion process to LiMux

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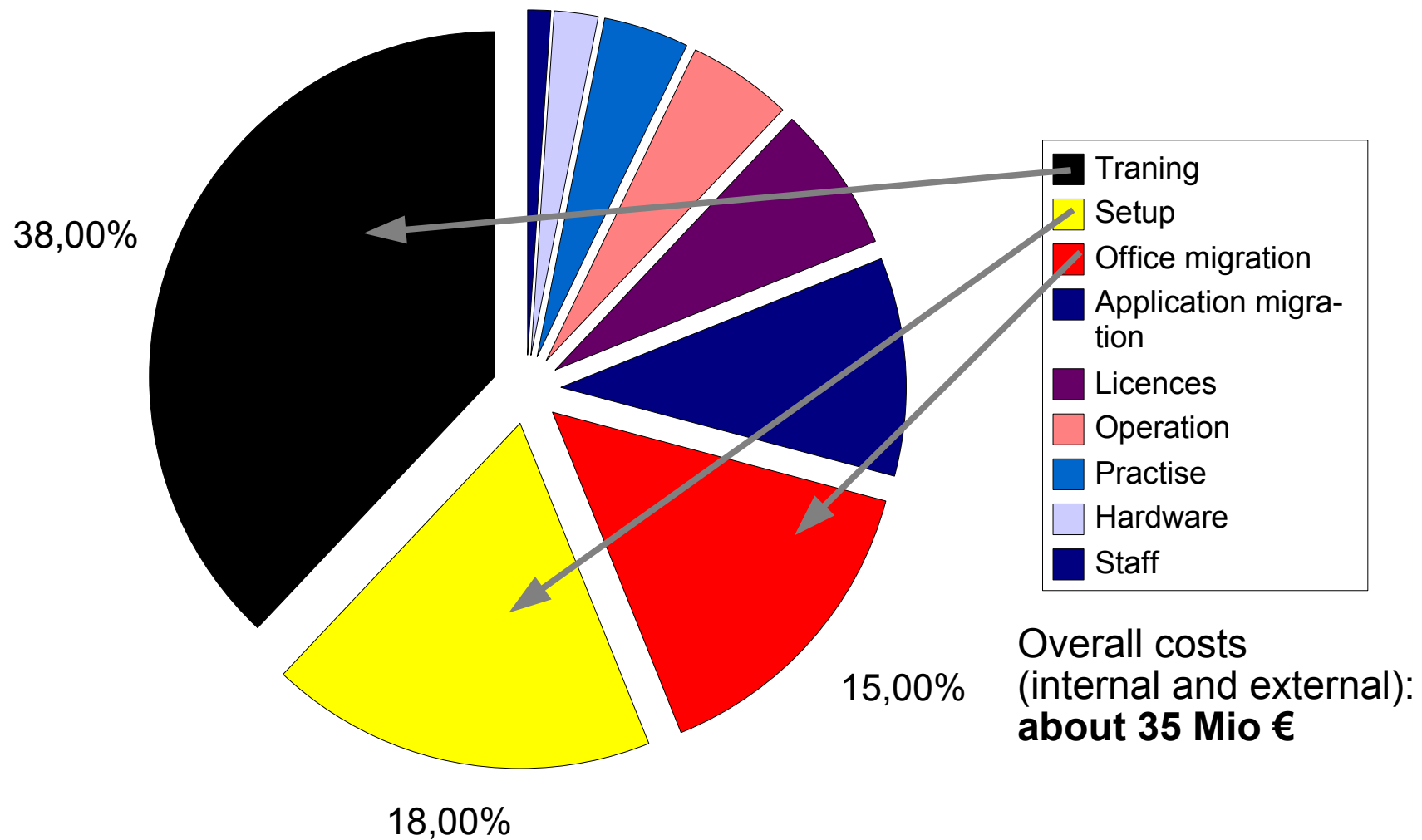Die IT-Evolution

LiMux project tasks

Organizational

- Implementation of service and support processes (ITIL) for the basic operating system

- Definition of a standardized basic operating system

- Internal and external communication

- Coordinate the office software migration

- Projekt coordination and monitoring

- One solution for one task

- Minimize redundancy of extra software

- More competition on the IT market

Technical

- Development of a basic operating system

- Support of office migration

- Support of business application migration

- Standardized login service for a basic operating system

- Software distribution, system and config management for the basic operating system

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Estimated costs after detailed conception

38,00%

18,00%

15,00%

Traning
Setup
Office migration
Application migra-tion
Licences
Operation
Practise
Hardware
Staff

Overall costs
(internal and external):
about 35 Mio €

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Selection of a suitable distribution

...was not a selection of a existing distribution, but a search for a suitable solution with open source software for the complete IT, even business applications and the backend

We asked for

- A service provider for the customized configuration
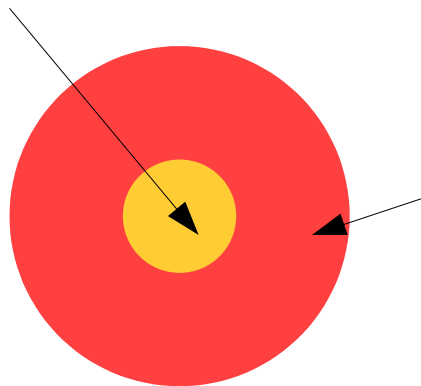
- A support and maintenance provider

The selection was

- Not a tender of a basic operating system

- Service provider should suggest a distribution

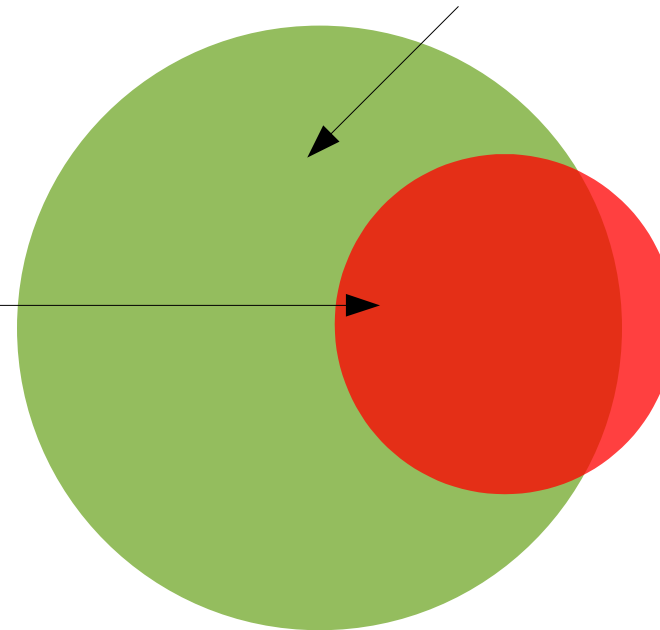**► Tender for a concept, not a software product**

Two main choices

Small and free base
distribution

Commercial distribution

Requirements
of Munich

Main components of the basic operating system

Distribution / base system

- Debian GNU/Linux sarge

Graphical user interface

- K Desktop Environment (KDE 3.5)

- XOrg X-Server

Office system

- OpenOffice 2.x

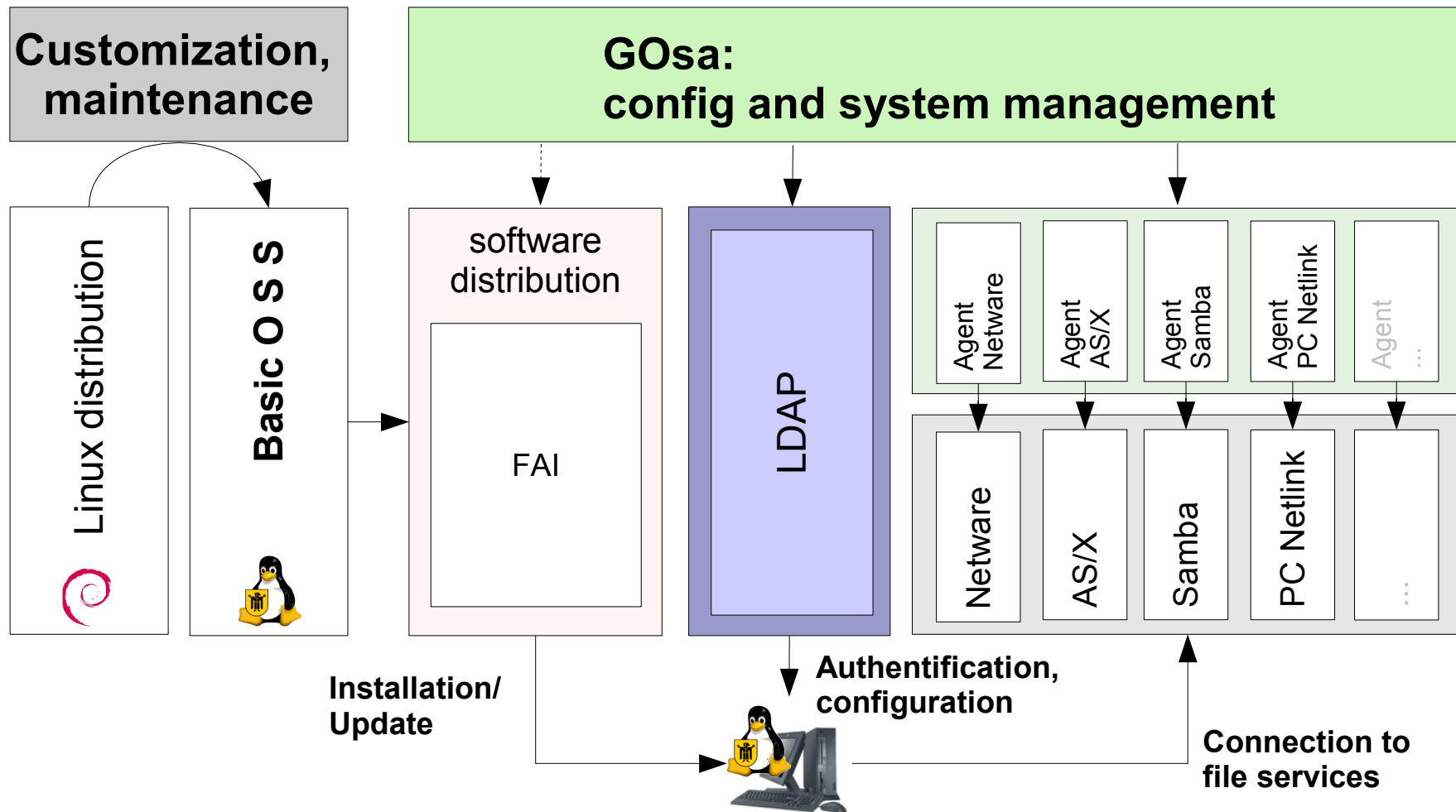**Communication**

- Thunderbird 1.5.x

- Firefox 1.5.x

Image editing

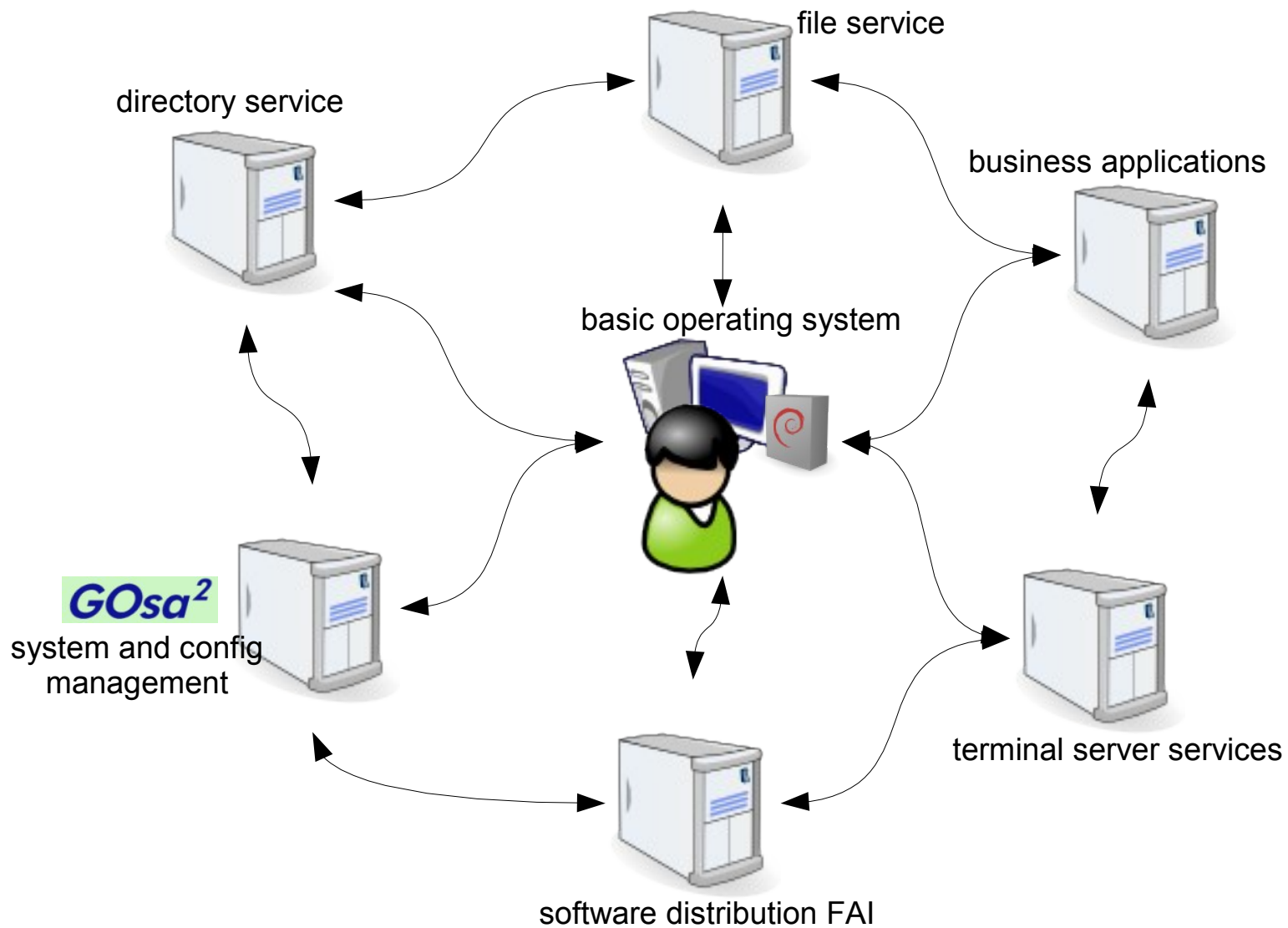- GIMP 2.x

Software distribution and system/config management

Customization, maintenance

GOsa: config and system management

Linux distribution

Basic O S S

software distribution

FAI

LDAP

Agent Netware

Agent AS/X

Agent Samba

Agent PC Netlink

Agent …

Netware

AS/X

Samba

PC Netlink

…

Installation/ Update

Authentification, configuration

Connection to file services

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Screenshot GOsa

GOsa is
Free Software of

GONICUS

(http://gosa.gonicus.de)

Infrastructure for the base client

file service

directory service

business applications

basic operating system

GOsa²

system and config management

terminal server services

software distribution FAI

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The migration szenarios for business applications

migration solution

- web based services
- native linux client

interim solution

- Linux + virtualization (VMWare) / run time environment (Wine)
- Linux + terminal server
- Windows based interim solution

Mozilla | OpenOffice

server connectivity

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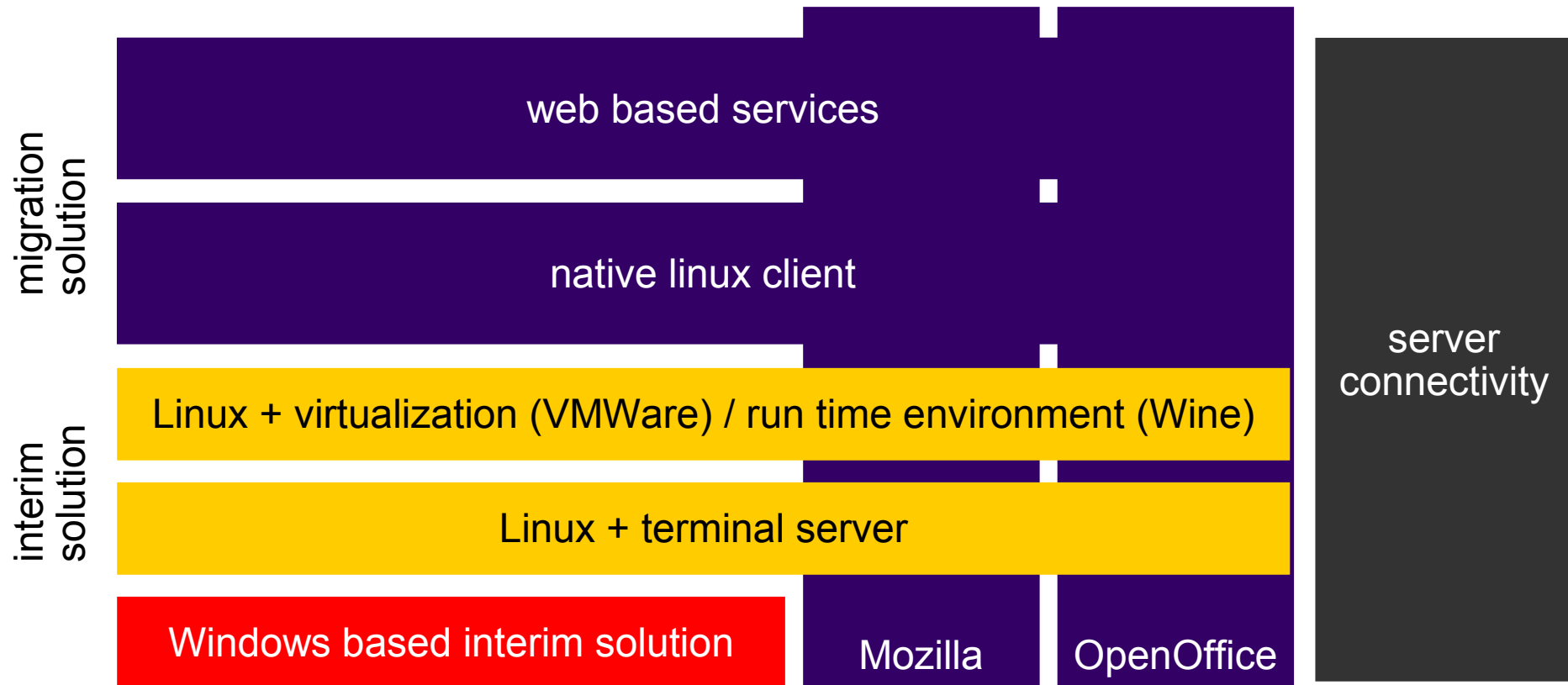
Migration to Open Office - Problem of existing office templates

Actual quantitiy taken during detailed conception (templates, macros, forms)

- Ca. 13,000 objects must be migrated

- Some software solution redundancies - different solutions for same problems

- Problems in file exchange expected

► Consolidation and coordination of the migration

- Development of a template and text module system „Wollmux"

- One solution for one problem, web based if possible

- Support of IT offices by an office support center

- Assistance / help for file exchange problems
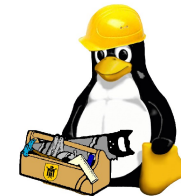
Templates and text modules with Wollmux (1/2)

"Eierlegender WollMux" is the title of a project to develop an office solution including the following components

- Letter head system:
  Fill in user data automatically, writing as another person

- Form system:
  Assists the assembling documents based on templates, which require special input, template selection, automatic printing of different drafts or document versions, automatic calculation of values based on input and filling in the right spaces

- Text module system:
  Assistance the assembling documents with text modules

- Assistance for paper based workflows

Screenshot Wollmux (2/2)
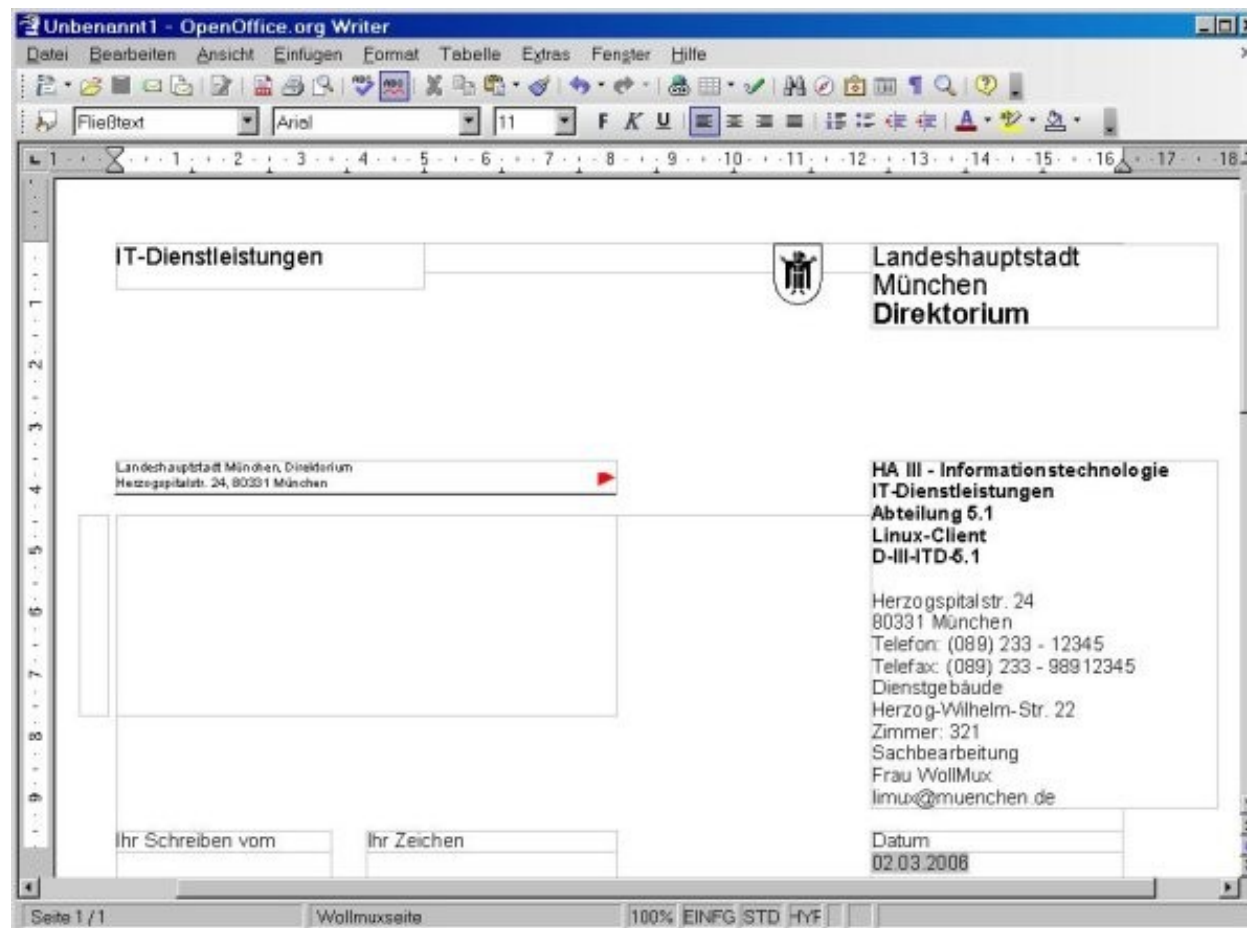
Two worlds coexist: MS Office and OpenOffice.org

Gradual migration to a basic operating system

- Migration to OpenOffice under MS Windows possible, not a must

- Parallel use of OpenOffice and MS Office

File exchange necessary

- Internally

- Externally

► **Straight tipps to file exchange**

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Straight tipps to file exchange

Inside and understanding

- Correct use of text processing software saves a lot adaption time

- Paragraph and format templates instead of direct formatting

- Paragraph and format templates instead of manual word-wraps

- Customized tab stops instead of blanks or more tabs

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LiMux project team

Members

- Projekt headquarter (6 persons)

- Client Developement and office migration (16 persons)

- Controlling and external assistance (8 persons)

- Subprojects and other roles in the project (ca. 100 persons additionally to normal work)

Subprojects

- Linux client

- Pilot, coordinat and roll out

- Migrat business applications

- Education

- Infrastructure

- Usability

- Communication and PR

Motivating the employees for the LiMux project

Communication

- Communication team out of all departments for exchange of information and experiences

- Activities: performances, presentations, events and sampling demonstrations

- Mux to engage sympathy and identity

- E-mail, intranet, newsletter, forum, wiki

- Marketing: projectflyer, posters, give aways, lottery

- Face-to-face talks

- Invitation to improve the basic operating system

Education

- Subproject education

- Individual migration training

- New software training

- E-learning platform

The migration in the departments

Organisation

- Voluntary pilots with Linux in 3 departments

- Time to iron out any teething problems

- Way of migration is individual
  – soft: Open office and Firefox and Thunderbird (Windows)
  – direct: Linux

- Uncritical users first

- The basic operating system „Basisclient 1.0"
  is released since september 2006
  and its usability
  is certificated

- E-learning platform is approved since december 2006 and awarded

Up to date (November 2007)

- In 3 units (Dir, Kult and RevA)
  660 workstation computer are converted to Linux

- 200 additional test workstations are installed and administrated

- 4700 employees trained in open source software

- 5000 workstations with open source software under Windows

- 80 administrators trained in LiMux

Next steps

- Effective client rollout

- Gradual development of a basic operating system

- Incremental further development of WollMux

- More offices migrate to a basic operating system

- More offices use free software for Microsoft Windows (e.g. OpenOffice.org, Firefox, Thunderbird, Gimp)
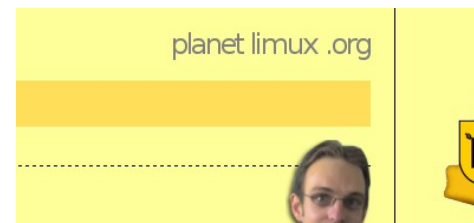
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Any questions?

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Thank you for your attention

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