

# Winning organizations over to free software

By Knut Yrvin  
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# Agenda

- Pilot project
- Validation and confirmation
- Best practices
- Do and what not to do

# Based on

- Rolling out Libre/OpenOffice in municipalities and city councils
- Rolling out Skolelinux at all schools in municipalities, cities and whole states
- Participating and leading partly or whole free software projects for 10 years

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# CV on Knut Yrvin

- Telenor in 1986 – technical assistant
- Engineer in electronics – 1992
- Telenor – project planning – 1993
- Master in system development – 2000
- Consultant for three years
  - Norwegian Central Securities Depository, different banks and other industries
- Co-founded Skolelinux in 2001
  - Now a part of Debian Edu
- Trolltech ASA – 2006-2008
- Qt DF, a Nokia Company – 2008 →

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# About the case



- Medium Norwegian Municipality
- 25.000 citizens
- 4.000 OpenOffice users
  - 1500 employees
  - 3000 students

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# Adoption plan

- Start using OpenOffice.org in schools from 2005
- Has to integrate better with Learning Management System (LMS)
- Plan to move from Wordpro to OpenOffice.org for the doc/archive system ESA
  - Vendor: EDB
- Improved user experience in general

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# Clear benefits

- Open Standards (reference catalog in public sector which pre-conditions ODF. MS Doc's are optional)
- Lowering maintenance cost (licenses and upkeep)
- Unrestricted use also for users at home, independent on platform
  - No hidden school fee when using Libre/OpenOffice and other free software at home
  - Runs cross platform on OS X, Linux og Windows

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# Pilot project

- Standard installation
  - We added the MS libraries which was lacking (.dll's)
  - Using standard installation for Libre/OpenOffice
    - Following the online guideline to the letter (it's not difficult, it takes less than a day)
- Standard project management
  - Reference group
  - Going straight for the problem list, solving issues
  - Using status to govern the project going forward

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# Examples of systems to integrate

- Microsoft Windows (servers and desktops)
- NOARK (EDB / ESA doc/archive system)
- E-mail system
- Web browser (IE, Firefox, Opera)
- Management system (wiki)
- Learning Management System (It' learning)

**This system has to co-work and integrate nicely if Libre/OpenOffice shall work**

# Doc/Archive System (EDB - ESA)

- Challenges
  - DLL's and ActiveX
  - Libre/OpenOffice.org BASIC
  - The glue between OpenOffice and ESA (Microsoft DDE)

**Problems solved**

# Management System

- Symptom
  - Hyperlinks with bookmarks  
[file:///Documents And Settings/User/FileName.doc#Bookmark](file:///Documents%20And%20Settings/User/FileName.doc#Bookmark)
    - Import of hyperlinks from MS .docs
    - Hyperlinks are stored 3 different places in MS .docs
- Symptom
  - Export of hyperlinks to MS .doc
    - Absolute: look above
    - Relative: [file:///./ny sti/FilNavn.doc](file:///./ny%20sti/FilNavn.doc)

**Problems solved – Couldn't fix MS Office  
Made workaround in Libre/OpenOffice**

# Learning Management System

- Symptom
  - Document could not be opened or saved in the It's learning LMS
- Solution
  - The vendor fixed their ActiveX plugin which now works with Libre/OpenOffice

**Problems solved**

# User Experience

- Symptom: OpenOffice.org hangs
  - Smart Notebook Whiteboard application
    - OpenOffice.org Plugin
    - Installed newest Smart Notebook version avoids the problem (including use of newer MS DLL's)
- Symptom: .docx files didn't work
  - OpenOffice < 3.3 using ODF Converter Integrator
  - Upgrade to OpenOffice >= 3.3

**Problems solved**

# Integration issues summary

| Symptom                                       | Problem           |               |              |          |                 |                          | Fixed |
|---|-------------------|---------------|--------------|----------|-----------------|--------------------------|-------|
|   | MS<br>DLL/ActiveX | MS<br>Windows | MS<br>Office | MS<br>IE | Syst.<br>Vendor | Libre/O<br>penOffi<br>ce |       |
| Locked files                                  |                   | X             |              |          |                 |                          | Yes   |
| Software packaging                            |                   |               |              |          | X               |                          | Yes   |
| Withboard hangs                               | X                 | X             |              |          |                 |                          | Yes   |
| Hyperlink import in .doc                      |                   |               | X            |          |                 |                          | Yes   |
| Hyperlink export in .doc                      |                   |               |              |          |                 | X                        | Yes   |
| .doc's don't open in MS<br>Internet Explorer  |                   |               |              | X        |                 |                          | Yes   |
| No documents opens in MS<br>Outlook           |                   | X             |              |          |                 |                          | Yes   |
| OpenOffice didn't work with<br>LMS            | X                 |               |              |          | X               |                          | Yes   |
| Lack of integratin with<br>doc/archive-system |                   |               |              |          | X               |                          | Yes   |
| OpenOffice hangs when<br>restarting           | X                 |               |              |          |                 |                          | Yes   |

# Technical effort

- 8 – Microsoft-relevant bugs and workarounds
- 3 – Vendor based bugs and workarounds
- 1 – Libre/OpenOffice workaround to fix MS Office bug.
  - Thanks to technical advice from Microsoft technical ecangelist

# Our work methods

- Best practice
  - Use of incident (ticker) system for tracking errors and fixes
  - Use of 4-5 reference users who are confirming that a problem is solved before deployment
  - Every machine get the fix or patch installed on their computer
- Quality in the whole user chain
  - Proper testing before rollout, confirmed by reference users
  - All fixes are used when going forward, “not leaving anyone behind”
  - All patches relevant for Libre/OpenOffice committed upstream



# Good processes

- Direct contact between 4-5 reference users and the persons fixing and integrating the product
- Followed standard online howto's for packaging, configuring and rolling out Libre/Office to the letter
- Added the right Microsoft libraries (DLL's)
- The project has rolled out all fixes and workarounds for the reference group, verifying those. This to ensure proper quality when rolling out software for all users.
- The municipality got good systems for efficient and effective patch upgrades of software on their respective platforms

# Pilot project

- Standard installation
  - We added the MS libraries which was lacking (.dll's)
  - We used standard installation for Libre/OpenOffice
    - Following the online guideline to the letter (it's not difficult, it takes less than a day)
- Standard project management
  - Identified problems to solve
  - Reference group to confirm bugs and fixes
  - Status by issue tracker (bug and feature tracker)

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# Good project management

- All project participants got a complete and updated list of bugs, fixes and workarounds – such that the project management and the participants know what to fix, and what works and can be used
- The system vendors has to be a part of the incident ticker (bug tracker). That way they can be kept responsible for how their solve their system bugs

# One municipality which failed

- Rolled out a wrongly packed (breaking best practice) Libre /OpenOffice for all, without any quality insurance
- No use of reference users to confirm bugs and fixes
- No problem-list or tickers to monitor bugs and fixes done in the project. No progress status or overview of fixes.
- No rolling-out of fixes under the project period, even if problems was fixed and made fully available for test and deployment
- Libre/OpenOffice got the blame for clear cut bugs in MS Office and Internet Explroer in the management system
- Those who fixed the bugs didn't have real access to users, validating that fixes worked

**Do and don't do**

# Do Sane defaults

- Sane defaults
  - Standard packaging
  - Include MS-libraries (DLL's) as ordered
- Configuration are sometimes flawed
  - Since no fix in MS products might be allowed or wanted, make workaround in Libre/OpenOffice
- The project is the task list and the reference group and the end users who need handholding and will confirm that fixes work

# Don't Fuel uncertainty

- Be extremely careful when discussing project forks as the split between Libre and OpenOffice
- Such “facts” are uninteresting for the project perspective, that the only thing users want is stability, confirmation that “everything” works, and security for using the software for years without worry (= having a trustworthy partner who fixes the problems)



# Don't play zero-sum games

- Eager free software enthusiasts are often fast to point out all the different opinions in free software, painting a black and white picture biased to their own preference
  - Exampels: Libre Office is better than OpenOffice, Use GNOME over KDE etc.
- When painting biased black and white picture, you're unfocusing on the users needs, making them really uncertain on what to do. Customers will abandon you. Instead they go for a proprietary wendor – paying 3-5 times more (read Microsoft “Evangelism is War” document on groklaw)
- Badly lead projects and computer departments only look for your weakness, and whom to blame. They are not at all addressing factbased problems which easilly can be fixed and rolled out to the users

# Do Best practices

- Focus on measurable facts and the task-list at hand, fix the issues according to agreement, and get the fixes confirmed by the reference group – show those
- The user organizations want stability and confirmation of trust, not organizational uncertainty – give them trust and certainty
  - E.g if a big corporation contributes to a project, be certain to mention that – it adds certainty and validity

# Be professional

- Sell, don't tell
  - You have to get leads and follow up on them, selling your solution, getting the assignment – or else MS wins the deal
  - Don't blame the free software project for only delivering a 80% working solution
  - Pic a 100% working solution, and then get the customer to use it and pay for the work to get it adapted, integrated and used – if it's less than 100% and worth while – fix it your self by getting customers to pay for it
- Listen with your both ears, be in 'we can look at it', and fix the major challenges, given the opportunity to do so

# 100% products and backers

- It's a huge difference of having a page with some text, and having qualified guides on how to roll out, configure and use products
  - “We have it” arguments don't stick if it's unqualified
- It's a huge difference rolling out software with full business support backed by companies, or choosing a product only 80% done, where a new maintainer may take the product in a entirely new direction

# 80% psychology

- In projects like this, 80% of the work are about human issues – not related to fixing the issues at hand
  - Project management
  - Tutoring users
  - Meetings
  - Blah blah ...
- Only 20% of the project time are about fixing the technical issues

**Invoice the full project, not only the 20% technical part**

**Thank You**  
**Q & A**