Collaborative Data Sharing

Josef Spillner <spillner@kde.org>
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aKademy, Glasgow, Scotland

Talk outline

- The goal
- Essential ingredients
- Server side: Hotstuff
- Client side: KNewStuff2
- Mixing everything together
- Some future variations

Goal of GHNS

- Collaborative data sharing platform
  - for all applications and desktop tools
  - sharing potential not used in KNS1
  - collaboration through new DXS handler
- Discussion on ghns.freedesktop.org
  - GNOME ideas only from time to time :(
  - probably needs more applications

Hotstuff

- GHNS server tools
  - handle uploads, download counters
  - versioning, XML file creation, ...
- Latest release: 0.9.1, March 2007
  - SLOC ~3500
- Improvements in SVN version
  - mostly just bug-fixing
  - recursive scanning, i18n'd entry names

[slightly OT] Evidence

- OpenID implementation for KDE
  - based on phpMyID
- Centralised account handling
  - some advantages (passwords, email)
  - some disadvantages (privacy?)
- To be supported by Hotstuff
  - for uploads and user interaction
  - towards KDE-wide single sign-on
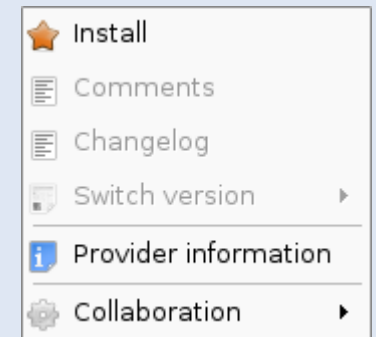- OpenDesktopID (in webtech)

KNewStuff2

- KDE library for GHNS
  - easy API
  - flexible configuration
- Mostly included in KDE 4.0
  - upload works already
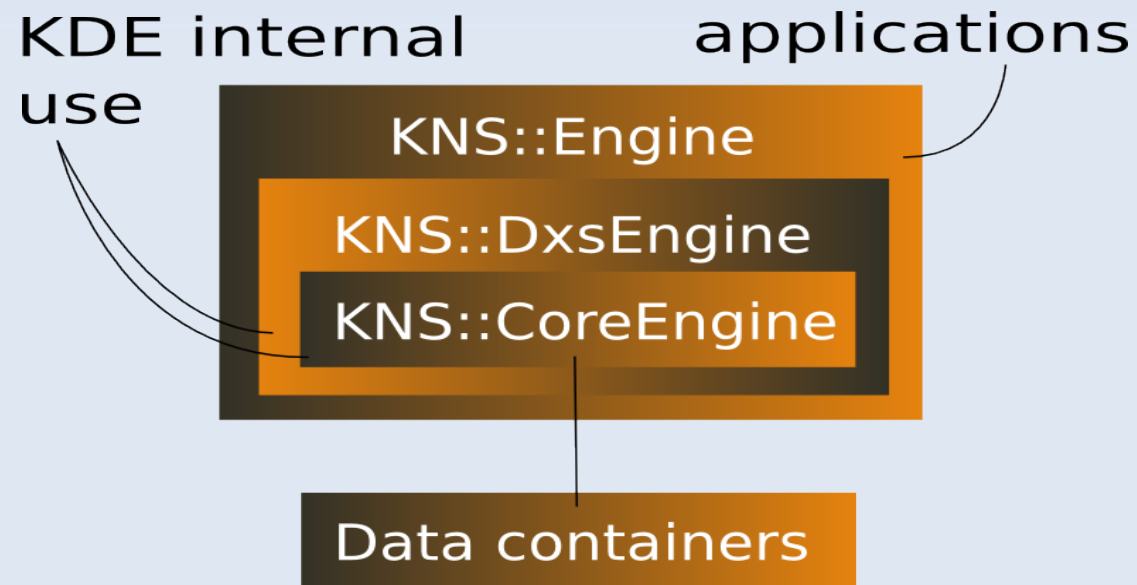 - download kind-of works, but looks badly
  - SLOC ~7000

KNS2 components

- Dialogues
  - upload, download
- Buttons
  - Action button
  - KDXS interaction button
- Engines
  - CoreEngine: GHNS, DxsEngine: DXS
  - higher-level Engine class for apps

Architecture

KDE internal use

applications

KNS::Engine

KNS::DxsEngine

KNS::CoreEngine

Data containers

Delicious API

- One-liners for common cases
  - KNS::Engine::upload() // c'est tout
  - advantage over KNS1: returns entries
- More flexible for components
  - KNS::Engine engine;
  - engine.init(); // in Engine
  - engine.setDxsPolicy(); // in DxsEngine
  - engine.setAutomationPolicy(); // Core

Flexible configuration

- Everything set in *.knsrc files
  - list of providers
  - package location and decompression
  - system-wide installation offer
- Apps can share *.knsrc files
  - then they share the data, too

Future KNS2 variations

- Improved uploading wizard
  - package semantics
  - Plasma integration
- Tag clouds
  - more powerful than categories
- Daemon mode
  - with D-Bus interface
  - WS bridge (webtech)

Innovative community

- Community needs tools
  - new.kstuff.org runs Hotstuff 24/7
  - testbed for planned data.kde.org server
- Tool authors need community
  - tell us what's missing
  - kde-edu is a good example

Ready to be served

- Mostly done! (yum yum)
- Still TODO:
    - better GUI for download dialogue
    - caching done correctly
    - more automated server tests
    - webtech exploration
- Hackers welcome

Dessert: Timeline

oKular
trunk/playground/graphics

oKular
work/kde4/playground

KPDF
kpdf-annotations

KNewStuff2
branches/work/knewstuff2

KDXS
kstuff.org
KPDF dialog (eros)

KNewStuff
branches/work/knewstuff-features

KNewStuff   KNewStuff   KNewStuff
kdelibs-3.3   kdelibs-3.4   kdelibs-3.5

KNewStuff
kdelibs-trunk
KNS button (aseigo) KDE4 merging (coolo)
KNewStuffSecure (amantia)   CMake switch (neundorf)

KNewStuff
korganizer-trunk

KDEShare
kdenonbeta

blackhole

|7 |8 |9 |10|11|12|1 |2 |3 |4 |5 |6 |7 |8 |9 |10|11|12|1 |2 |3 |4 |5 |6 |7 |8 |9 |10|11|12|1 |2 |3 |4 |5 |6 |7 |8 |9 |10|11|12|1 |2
      2003   **2004**   **2005**   **2006**   **2007**