OpenOffice.org at the French Institute of Statutory Auditors

in Desko

CNCC

OpenOffice.org at the "French Institute of Statutory Auditors": a case study in building OOo-based business applications and in integrating OOo with a CMS / Collaborative Platform.

As part of the CNCC (Compagnie Générale des Commissaires aux comptes – French Institure of Statutory Auditors) extranet project led by Unilog and Nuxeo, Indesko has developed the following functionalities: Docbook publishing, Audit mission management, Nuxeo CPS3 integration, Security improvements, Strong authentication, etc...

Eric Barroca <eb@indesko.com>
Berlin > 24/09/2004

OpenOffice.org
Conference

September 28, 2004

- Who am I ?

- The French Institute of Statutory Auditors

- The project : « Portail v2 »

- The OpenOffice.org choice

- What we did with OpenOffice.org

  - « Audit Folders » management

  - Professionnal authoring and publishing

  - Custom OpenOffice.org distribution

- What's coming next

- Benefits for the community

- Demo !

- Questions and answers

- Eric Barroca, Operations Director of Nuxeo and CEO of Indesko
- Nuxeo
    - Created by Stéfane Fermigier, 4 years ago
    - Leader of Zope services in Europe
    - Creator and maintainer of Collaborative Portal Server (CPS)
        - Most advanced Open Source content and document management platform
        - Document management and workflow oriented
        - Chosen by Ministry of Interior (France), Ministry of Justice (France), Ministry of Culture (France), Suez Group (Worldwide), ST Microelectronics (Worldwide), BCEAO (Senegal), CNCC (France), Governement of Senegal, and many others.
- Indesko
    - Subsidiary of Nuxeo
    - Started 4 months ago
    - Specialist of services for OpenOffice.org
        - Focused on technology and development
    - Chosen by some « Prefectures » (France), CNCC (France), and some more :-)

- CNCC : Compagnie Nationale des Commissaires aux Comptes

- Statutory auditors are entrusted with a wide-ranging audit and supervisory mission for the benefit of users of financial information.

- A professionnal organisation
  - Formed by decree
  - Close collaboration with the Ministry of Justice
  - Permanent contact with government authorities

- Standard settings
  - Professionnal audits standards, compliant with the international standards
  - A code of ethics

- Supervision and monitoring
  - QA
  - Discipline
  - Liaison with the security market regulator (COB)
  - Continuing professionnal development

- Internet portal : legacy content, e-commerce, general public content
- Extranet portal to provide value-added services to the profession
  - Not free --> it has to work !
  - Online services : webmail, shared calendaring, private workspace, collaborative work features, etc.
  - Workflow tools for committee members and firms
  - Content and document management : access to continusly updated information
  - Exhaustive business directory (120 000 entries, complex structure)
  - Business and administrative applications using OOo and the portal :
    - updating of the members' register
    - membership management
    - activity returns and monitoring
- Security
  - Deployment of a wide PKI, including strong authentication and signature (using USB tokens).
  - Law-proof archiving and timestamp

- The challenge...
    - About 1500 man.days
    - 14 persons full-time
    - 9 months to specify, build and deliver it !
    - Go live next monday (27/09) !
- Technologies used
    - Document and content management: Zope / Nuxeo CPS 3
    - Content authoring: OpenOffice.org
    - Desktop business application: OpenOffice.org + Macros / UNO modules
    - Content format for exchange and production: Docbook XML
- This project was lead by Unilog and Nuxeo

- Solutions proposed :
  - Microsoft-based: MS SharePoint 2 / MS Office 2003
  - OpenSource-based: Nuxeo CPS 3 / OpenOffice.org
- Decisive points
  - No need to bother supporting all versions of MS Office, just distribute OpenOffice.org and support it --> support cost reduction
  - XML file format --> independence, easy transformations, etc.
  - Docbook XML for storage and publishing
    - Standard and open format
    - Future-proof storage for content
  - Open Source software --> less specific developement (all generic development are integrated into main branch and released as GPL) --> less support cost

- What we did:
    - Basically, we coupled OpenOffice.org with the document and content management system Nuxeo CPS 3 to offer complete desktop and server solutions.
    - « Audit folders » management
        - On-line diff and merge of several Calc documents
        - OpenOffice.org Calc documents server-side modification (to fill information)
        - Business application called « Master sheets generation »
    - Docbook XML generation from OpenOffice.org documents (and HTML and PDF format from Docbook)
    - Custom OpenOffice.org distribution
- What our customer did:
   - ERA Edit: very big forms using Calc and macros

- What is a statutory audit
  - Statutory auditors have to do audits!

  - They follow procedures to make an audit, thoses procedures is more than 200 pages of forms and they can adapt the procedure, adding or deleting some part of the forms. An audit is composed by several « independent » parts. We will call all thoses forms « audit folder ».

  - Generally an audit is made by a team composed by some auditors, that, of course, need to work together

- How they did before the project
  - Before the project, audit folder was a folder of paper. The audit manager distributed part of the folder to each auditor --> imagine the work needed to properly manage the merge, check that nobody lost a sheet of paper, etc.

- What we have proposed

  - An audit folder is a collection of OpenOffice.org Calc documents (each one corresponding to one part of the audit).

  - The audit manager assigns some people to each calc documents. They download the document, go to their customer and fill in the form. When they are back at the office, they upload their documents into a dedicated space on the portal. We called those files « contributions ». When a contribution is uploaded the portal fills in some informations on all sheets (like current date, customer's name, etc.).

  - The audit manager selects several contributions on the same part of the folder and selects the reference document (the one auditors downloaded before leaving their office for customer's office), then asks for a diff. The portal does a « diff », using XML content of documents (XMLDiff) and shows which sheets are different, for each contribution compared to the reference.

  - The manager selects modifications to integrate in the main part and asks for a merge. The portal merges each selected sheet into the main document, and puts the new document as a new version of the document in the « References » section.

  - Of course, all collaboration features of CPS are available for auditors to manage their work and to improve collaboration.

« Audit Folder » Management : Technologies used
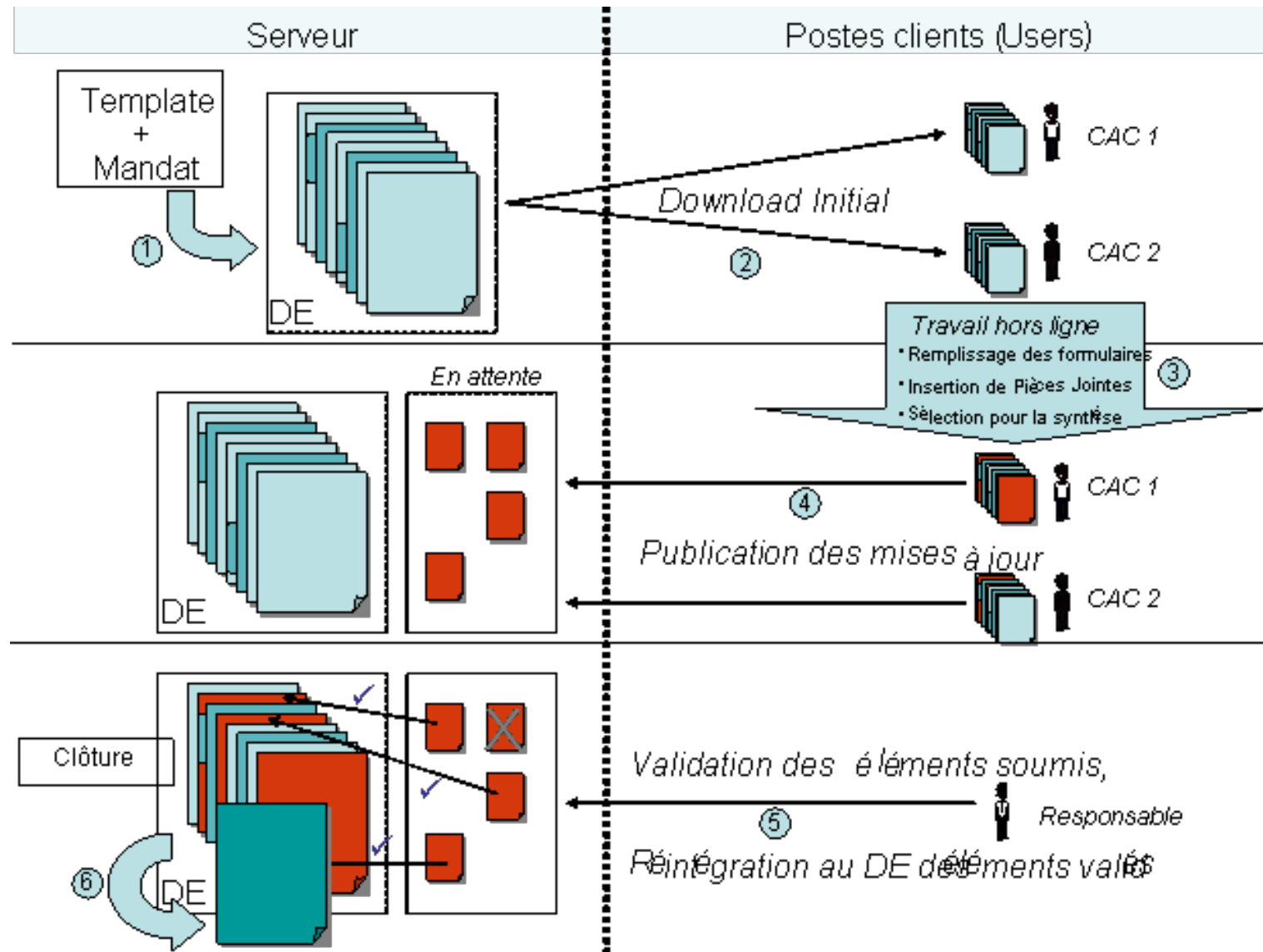
- ◆ Python to manipulate OOo Calc documents

- ◆ CPS 3 to manage documents inside the portal

- ◆ XML Diff and Python to « diff » documents

- ◆ DOM and Python to merge and fill in documents

- ◆ Python UNO component to offer a client-side application to gerenate sheets based on business rules and Calc data

- The needs
  - CNCC authors and publishes several kinds of documents: books, guides, notes, etc.
  - Documents have to be published on-line and printed in books

- How they use to do
  - Authors send part of publications in MS Word, paper (snail mail, fax), etc.
  - All those documents are sent to the printing company who makes it a book, ready to print using Adobe InDesign
  - The process is very expensive, and authors' contributions very difficult to manage

- What we have proposed

  - Authors create their content using OpenOffice.org and custom templates.

  - They upload their documents, and manage them using the CPS 3 platform. They can also collaborate, version, etc. using the online platform.

  - When an OOo document is uploaded into CPS, it's translated into Docbook. Docbook tags are guessed from content's styles (there are rules to use styles for the authors in a such way that we use styles to semantically tag content). They can use tables, copy / paste pictures (Bitmap), etc.

  - Then Docbook version of the document is available to download and translated into HTML and PDF (using customised XSLT stylesheets from the Docbook XML project).

  - When the book or the document is ready, managers can publish it online and send it to the printing compagny.

  - The printing company uses Adobe InDesign XML import filter to import the content into print templates.

- ◆ Benefits
  - ◆ Authors can directly see what their content looks like translated in HTML or PDF
  - ◆ Authors can use all features of OpenOffice.org to authors and collaborate (« show modifications », comments, etc.) since we only export to Docbook style-tagged content
  - ◆ CNCC reduces heavily its publishing and contribution management costs
  - ◆ All content is stored into a future-proof and OASIS standard format (and soon ISO)
- ◆ Technologies used
  - ◆ OpenOffice.org to create and edit content ! :-)
  - ◆ XSLT to transform OpenOffice.org format to Docbook
  - ◆ Python to make better Docbook documents (ex: pictures and links handling)
  - ◆ CPS 3 to manage documents, transformations and online publishing

- CNCC wanted to propose and offer to its customers a custom OpenOffice.org distribution

- What the OOo distribution includes
  - OpenOffice 1.1.2 built for MS Windows
  - Crystal icons (much nicer than default ones)
  - Some macros (like TextToColumn for MS Excel addicts)
  - Business-dedicated templates
  - Win32 patches from ooo-build environment
  - French dictionnaries, help content, parameters

- This distribution is packaged with a single installer that installs « automagically »:
  - OpenOffice.org 1.1.2 custom (using response file for « silent » installation)
  - ZopeEdit: « Edit on line » feature that opens a document directly from the browser into OOo, and sends the modified document back to the document management system (without bothering the user with manual upload)
  - SSL client certificate management software to allow ZopeEdit to use Windows CryptoAPI to access to Windows certificates stores including USB tokens)

- OpenOffice.org and CPS3 tight integration: OpenOffice.org as a full-featured Nuxeo CPS 3 client.

- Main features

  - Edit online documents (directly opened from the browser and saved to CPS3 by OpenOffice.org)

  - Browse a CPS3 repository, open and edit content, version browsing, comment browsing

  - Workflow actions available for the document opened directly usable from OpenOffice.org (accept, refuse, assign, etc.)

  - Better Docbook transformation

  - Document strong signing from OpenOffice.org (using certificate from Mozilla Stores or Windows Stores), and maybe workflow actions

- Add XML-RPC and SSL support to OpenOffice.org (UNO Python module)

- Technologies used

  - Python and UNO bridge

  - XML-RPC for communication

  - HTTP and SSL for transport

- All generic developments are released under the GPL

- Docbook transformers will be released next month (they are already available from Nuxeo's CVS)

- UNO Python module to support XML-RPC communication. The XML-RPC communication channel is available from UNO components and from OOBasic macros will be released next month too. It will open a new way to integrate OOo with server-side applications.

- Custom OOo distribution and package, dedicated to french-speaking people, will be available at the beginning of october

- And, of course, CPS 3 integration UNO module will be released as soon as it works ! :-)

- Let's demo !

- I will be pleased to answer your questions

- For more informations
  - CPS 3 : www.cps-project.org and http://zope.org/Members/nuxeo
  - Indesko : www.indesko.com
  - Docbook : www.docbook.org
  - OpenOffice.org : www.openoffice.org

- To contact me
  - Éric Barroca <ebarroca@indesko.com>
  - Phone: +33 6 21 74 77 64