Akoma Ntoso an open document standard for Parliaments

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Use of XML in Parliaments

- From the World e-Parliament Report 2012:
  - 43% countries stated to use XML in Parliament for bill
  - 35% countries stated to have the intention to use it in future

Figure 5.3: Use of XML for bills by parliaments with a document management system for bills

- Yes 43%
- Planning or considering 35%
- No, and not planning or considering 22%

(Source: Survey 2012, Section 3, Question 3; 70 respondents)
Old use of XML

Each body has a different standard

Data is locked
A new paradigm for open legal document and data
From legal open documents to legal open data
Legal XML standards in the world

- **1997**  EnAct - Tasmania, Australia, New Zealand and Canada
- **1999**  FORMEX data model - EUR-LEX
- **2001**  NormeinRete – Italy
- **2002**  MetaLex and SDU BWB - Netherlands
- **2003**  LexDania – Denmark
- **2003**  eLaw - Austria
- **2004**  CHLexML - Swiss
- **2006**  **AKOMA NTOSO – first release**
  - Crown XML Schema for Legislation - United Kingdom
- **2008**  Chile XML
- **2008**  House of Representatives
- **2012**  OASIS LegalXML
- **2009**  MetaLex/CEN
AKOMA NTOSO in OASIS

- An open XML standard for all the legal documents used in Parliamentary processes and judgments
- Started in 2005 in the project “Strengthening Parliaments’ Information Systems in Africa”, promoted by the UNITED NATIONS Department for Economics and Social Affairs (UNDESA)
- Akoma Ntoso means “Linked Hearts” and it is a symbol used by the Akan people of West Africa to represent understanding and agreement
Parliament Legislative process

Pre-assembly
- Committees Stakeholders
- Legislative Offices
- External Institutions

Assembly
- • Recording

Post-assembly
- • Document Drafting
  - • Simulation
  - • Consolidation of documents
  - • Consolidation of amendments
  - • Ordering of amendments
  - • Debates record
  - • Printing in the official Internal Journal

Post-Publishing
- • Final Drafting
  - • Formal Check
  - • Metadata

Official Publishing
- • Metadata

External Institutions

Committees Stakeholders

Legislative Offices

Documentalists

Post-Publishing
- • Consolidation
  - • Metadata
  - • Extraction
  - • Annotation
  - • Jurisprudence
Akoma Ntoso for Transparency, Quality and Efficiency

XML by itself is not a guaranty for transparency. Yet, Akoma Ntoso has explicit features that support it:

- Clear division of metadata from official content
- Explicit **lifecycle** of the document and tracking of workflow events
- **Systematic** connection of separate pieces of information to extract new legal knowledge
- Long-term **preservation** of legal validity (authentic document)
- Management of multiple linguistic expressions
- Data model for open government data
- Preservation of **privacy/liability** issues (e.g. in judiciary document)
Support for the generation of new documents
- Drafting activities, record keeping, translation into national languages, etc.

Support for workflow and lifecycle of documents
- Management of documents across lifecycle, storage, security, timely involvement of relevant individuals and offices

Support for citizens’ access to the legal global information
- Multi-channel publication (on paper and on the web), search, classification, identification

Further activities
- Consolidation, comparison, language synchronization, etc.
Akoma Ntoso for transparency and authenticity

<akomantoso xmlns="http://www.akomantoso.org/1.0">
  <act>
    <meta>
      Metadata annotation by editors
      Ontology annotation by editors
      Workflow metadata by the system
      Analysis metadata of the scholar
    </meta>
    <preface>
      Authorial content by the author
    </preface>
    <preamble>
      Authorial content by the author
    </preamble>
    <body>
      Authorial content by the author
    </body>
    <signature>
      Authorial content by the author
    </signature>
    <attachments>
      Authorial content by the author
    </attachments>
  </act>
</akomantoso>
Akoma Ntoso open source tools

- Editors: Lime, Bungeni, AT4AM
- URI/IRI Resolvers
- Textual Parser
- XML Validator
- Converters
- Presentation
- Sub-schema extractor
- Parliament SW Platform
PROYECTO DE LEY

Artículo 1º

- Declarése, por vía interpretativa, a los efectos dispuestos por la Ley N° 12.091, de 5 de enero de 1954, y por la Ley N° 16.387, de 27 de abril de 1983, que las embarcaciones deportivas o de recreo, de bandera extranjera, con sus accesorios, que arriben al país navegando por sus propios medios, podrán entrar, permanecer y salir de aguas jurisdiccionales o de puertos o lugares de la República amparadas por su bandera y sin otro requisito que presentar el rol respectivo de la tripulación y la matrícula y sin cumplir con las exigencias aplicables a los buques mercantes, pudiendo ser sus propietarios y/o usuarios, personas físicas o jurídicas, nacionales o extranjeras, radicadas o no en el país.
Success stories of Akoma Ntoso

- Senate of Brazil (act, bill, consolidation, point-in-time)
- European Parliament (bill and amendments)
- Library of Congress of Chile (bill and debates)
- Senate of Italy (bill publication in open data)
- Parliament of Uruguay (bill workflow)
- US Code Consolidation service (code management)
- State of California (xml standard for document management)
- Hong Kong City State (xml standard for document management)
- Federal Chancellery of Switzerland (publication in gazette)
- High Court of Cassation of Italy (xml standard for document management)
- several private companies are using Akoma Ntoso for document management systems
Motivation to move to a standard body

- Parliaments, Congresses, courts and tribunals need to invest in a robust, persistent, non-volatile XML standard for legal documents.
- Akoma Ntoso committee wants:
  - to widen the community and increase the number of pilot cases
  - to move Akoma Ntoso to the status of *International Standard*
  - to generate a robust governance
- For these reason in 2012 we started a TC in OASIS
OASIS: international standardization body

- Not-for-profit consortium founded in 1993
- Open to all: companies, government agencies, academic and research institutions, individuals
- International **community**
  - 5,000+ participants including: 600+ organizations in 100+ countries
    - 33% in Europe  13% in Asia
- Technical agenda set by members
- Board and Committee chairs elected by members
- About 65 Technical Committees active in many domains
  - Legal, court, business, academic, and technology professionals.
  - Collaboration on non-proprietary standards for the legal community.
- OASIS LegalXML Member Section – March 2002.

Electronic Court Filing

LegalRuleML (about norms formalization)

LegalXML

LegalCiteM (about legal citations)

LegalDocML (about Legal Markup, i.e., Akoma Ntoso)
LegalDocML/Akoma Ntoso

- Open the call for participation: 28 Feb. 2012
- First TC meeting: 29 March 2012
- Co-chairs: Monica Palmirani, Fabio Vitali
- Secretaries:
  - Tom Bruce, Cornell Law School, Legal Information Institute
  - Ashok Hariharan, Africa i-Parliaments Action Plan (UN/DESA)
  - Claudio Fabiani, European Parliament
  - Sylvia Tosar Piaggio, Parlamento del Uruguay
- Document quality manager:
  - LexisNexis, a Division of Reed Elsevier
- TC representative in LegalXML:
  - Shifrin, Laurel, LexisNexis, a Division of Reed Elsevier
LegalDocML TC members

- 43 members in the TC

Akoma Ntoso improvement

- New requirements from a wide number of pilot cases:
  - documentCollection including codes
  - jurisdiction metadata (e.g. individual UK kingdoms)
  - linguistic metadata (e.g. corresponding structure between different languages)
  - legal drafting metadata (e.g. renumbering)
- Naming convention for permanent identifiers of whole document (URI/IRI) and fragments (ids)
- Testing with a large number of different legal systems and pilot cases
- Varying levels of compliance
Akoma Ntoso compliance levels

- Level 1: structure of the document
- Level 2: structure and naming convention
- Level 3: structure, naming convention, basic metadata (e.g. normative references)
- Level 4: structure, naming convention, basic metadata, advanced metadata (e.g. events, modifications)
- Level 5: structure, naming convention, basic and advanced metadata, enriched semantic elements (e.g. references, location, quantity, term, person, etc.)
OASIS TC Workflow

**FIRST STEP**
- Working Draft
- Committee Specification

**SECOND STEP**
- Public Review
- Committee Specification

**THIRD STEP**
- Statements of Use
- Candidate standard
- Public Review

**FOURTH STEP**
- Balloting
- OASIS Standard

Full Majority Vote
Full Majority Vote
Full Majority Vote

Special Majority Vote

Three use cases
Open for 60 days

15% of the OASIS
Conclusions

- Akoma Ntoso is a robust Legal XML standard for legal open document in parliament
- It is fitted for open government data and semantic web
- Akoma Ntoso is extendable and customizable
- Each organization can use only the needed part
- Open source tools are now available
- Several pilot cases and end-user projects produce substantial proof-of-concepts that it is applicable to a variety of legal systems and scenarios
- OASIS standard process makes Akoma Ntoso an international standard stable with a good governance
Thank you for your attention

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References
Akoma Ntoso official website
- http://www.akomantoso.org/

Akoma Ntoso Open Source Tools
- AT4AM for all: http://www.at4am.org/
- LIME UNIBO Web Editor: http://lime.cirsfid.unibo.it/
- AKResolver: http://akresolver.cs.unibo.it/
- Akoma Ntoso subschema extractor: http://akn.web.cs.unibo.it/aknssg/aknssg.html
- Validator: http://legixinfo.wordpress.com/2013/08/22/free-akoma-ntoso-validator/

Akoma Ntoso other tools
- Xcential Web Editor: http://legisproweb.com/

OASIS LegalXML-TC
- Akoma Ntoso and LegalDocML TC-OASIS
- LegalRuleML TC –OASIS
- LegalciteM -OASIS