



XML in the Government of Québec

Michel Rochette, directeur Architecture et Infrastructure

Sous-secrétariat à l'inforoute gouvernementale et aux ressources informationnelles

13 septembre 2002

Outline of presentation

- **Progress since 1990**
- **Standards strategy**
- **Strategy for the transition from paper to electronic documents**
- **How to manage the coexistence of paper and electronic documents**
- **Conclusion**

Progress since 1990

<u>Year</u>	<u>Event</u>
1990	<ul style="list-style-type: none">• Expert systems and computer text analysis
1995	<ul style="list-style-type: none">• Study of, and research into areas of application of SGML
1997 to 1999	<ul style="list-style-type: none">• Québec's Information Highway Policy• Start of work on document management culminating in the observation that paper and electronic documents must be managed together• Government document engineering task force (25 organizations)

Progress since 1990 (cont.)

<u>Year</u>	<u>Event</u>
2000	<ul style="list-style-type: none">• XML experimentation with government forms, and constitution of an initial registry of XML schemas (www.rr.gouv.qc.ca)
2001	<ul style="list-style-type: none">• Study : XML en route in the Québec government• Integration of document engineering into the Enterprise architecture of government

Progress since 1990 (cont.)

<u>Year</u>	<u>Event</u>
2002	<ul style="list-style-type: none">• Government terms of reference for integrated document management• Creation of a first government metadata registry service

Standards strategy

- **Representation of exchanged and archived data**
 - XML
- **Logical structure of content**
 - XML Schemas and Xforms
- **Multiple renderings**
 - XSLT (www.autoroute.gouv.qc.ca/publica/pub_ingenerie.htm)

Standards strategy (cont.)

→ Digital signature of documents

→ XMLSig

(www.autoroute.gouv.qc.ca/publica/normes/norme5.htm
www.autoroute.gouv.qc.ca/publica/normes/norme96.htm)

→ Encryption

→ SSL, XMLEncryption

→ Metadata for records

→ Dublin Core (dublincore.org)

Standards strategy (cont.)

- **Act to establish a legal framework for information technologies (November 2001)**
 - Government terms of reference for integrated document management
 - Directories
- **Architectural framework**
 - ebXML, Open-EDI, Enterprises architecture of the Québec government

Standards strategy (cont.)

→ **Registre**

→ Metadata registry

- ISO 11179 - Specification and normalization of data elements

→ Registry of XML schemas

- OASIS / ebXML

→ Catalogue of processes, business objects and elementary components

- ebXML (ISO and UN/CEFACT)
- Open-EDI scenarios

Strategy for the transition from paper to electronic documents

- **Define business needs taking into consideration legal prescriptions**
- **Develop government terms of reference for integrated document management to:**
 - Effectively manage electronic documents
 - Integrate the management of paper documents and documents in electronic format (ebXML)

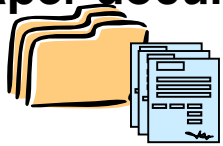
Strategy for the transition from paper to electronic documents (cont.)

- **Ensure the trouble-free exchange of information by structuring it**
- **Create document instance metadata**
- **Use cryptographic techniques**

How to manage the coexistence of paper and electronic documents

- The persistence of paper should not be seen as a problem
- Classification and indexing must be re-engineered

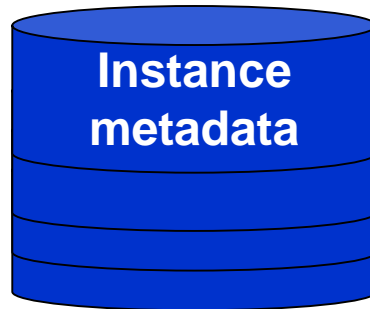
Paper document



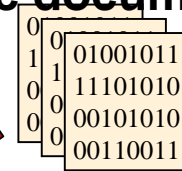
Entry



Instance metadata



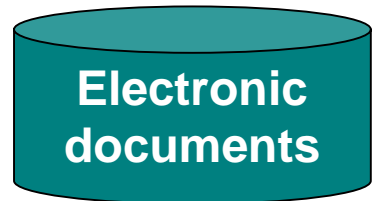
Electronic documents



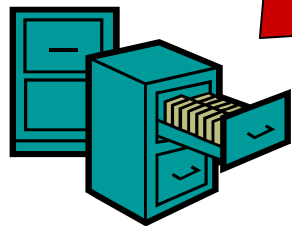
Automatic transfer



Electronic documents



Warehouse



Filing



XML signature

- **Common infrastructures:**
 - Public-key infrastructure
 - Government registry
- **Government digital information security architecture (AGSIN)**
(<http://www.tresor.gouv.qc.ca/inforoute/inforoute.htm>)
- **How to produce and archive digitally signed documents**
- **Common identification, authentication, date/time generation and notarization services (Bill 161)**

Conclusion

- **Reconsider the role of documents in establishing administrative and legal proof**
- **Have a comprehensive document engineering vision incorporated into the vision of electronic administration (e-government)**
- **Promote common services for profitability and quality of services**
- **Take a step-by-step approach**



Merci



Michel Rochette
michel.rochette@sct.gouv.qc.ca