



PRESERVING STATE GOVERNMENT DIGITAL INFORMATION

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INFORMATION ARCHITECTURE

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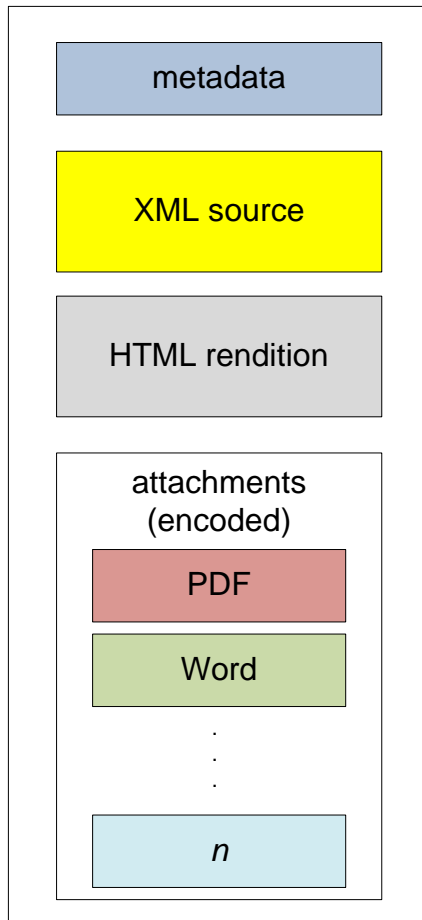
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SCHEMA GOALS

- SUPPORT STANDARD METADATA
- TRANSPORT DATA
 - PROVIDER XML
 - HTML RENDERING
 - BINARY ATTACHMENTS
- NEXT STEPS
- Q AND A



BASIC DOCUMENT STRUCTURE



← metadata essential to interchange recipients

← XML source in provider's native syntax

← HTML rendition of document being interchanged

← one or more attachments for other renderings
(encoded as Base64 or other plain-text format)

STANDARD METADATA

- Identifier
- Title
- Type
- Jurisdiction
- Agent
- Date
- Session
- Description
- Subject
- Relation
- Governor Action
- Management History
- Rights



METADATA EXAMPLE 1

```
<meta.identifier.block>
  <meta.identifier>200800SF2377-1</meta.identifier>
  <!--          YYYYssBT####-E
  where:
  YYYY      = year
  ss        = session number.  0 is regular session
  B         = body.  H(ouse) S(enate)
  T         = type.  F(ile)  R(esolution)
  ####     = document number
  E         = engrossment/version number
  -->
</meta.identifier.block>

<meta.title.block>
  <meta.title>SF2377-1</meta.title>
</meta.title.block>

<meta.type.block>
  <meta.type>bill</meta.type>
</meta.type.block>
```



METADATA EXAMPLE 2

```
<meta.subject.block>
  <meta.subject>Emergency and 911 Services</meta.subject>
  <meta.subject>Health and Health Department</meta.subject>
  <meta.subject>Hospitals and Health Facilities</meta.subject>
  <meta.subject>Boards</meta.subject>
</meta.subject.block>

<meta.relation.block>
  <meta.relation>
    <meta.version.of>HF1111</meta.version.of>
    <!-- 'version of' another document -->
    <meta.engrossment>1</meta.engrossment>
    <meta.companion.bill>HF2591</meta.companion.bill>
    <meta.chapter>2008 0 22</meta.chapter>
    <!-- Session Law: Year Session_Number Chapter -->
  </meta.relation>
</meta.relation.block>
```



REQUIREMENTS FOR SOURCE XML

- *Initial tentative goal:*

Develop schema that covers all requirements for all participating jurisdictions

- *Revised goal:*

Develop schema to wrap "native" XML from jurisdiction

- no transformation to write
- no loss of semantic markup
- no mapping of structures to common structure

SOURCE XML EXAMPLE

```
<![CDATA[
<bill engrossed = "y" type = "bill" xmlns:xsi =
  "http://www.w3.org/2001/XMLSchema-instance" xmlns:atipl =
  "http://www.arbortext.com/namespace/PageLayout"
  xsi:noNamespaceSchemaLocation = "bill.xsd">
  . . .
  <btittle>
    <btittle_prolog>A bill for an act</btittle_prolog>
    <btittle_summary>relating to health; modifying basic life
support ambulance staffing requirements under certain
circumstances; allowing a hardship waiver of advanced life
support ambulance staffing requirements; modifying advanced life
support ambulance staffing requirements under certain
circumstances;</btittle_summary>
    <btittle_action>amending Minnesota Statutes 2006, section
144E.101, subdivision 7; Minnesota Statutes 2007 Supplement,
section 144E.101, subdivision 6.</btittle_action>
  </btittle>
  . . .
</bill>
]]>
```



REQUIREMENTS FOR HTML

- Allow optional HTML rendition to be included
 - HTML
 - XHTML
- Data with and without entities (e.g. §)

REQUIREMENTS FOR ATTACHMENTS

- Encode binary file to allow to be included
- Format types (very extensible)
 - Microsoft Word (application/msword)
 - PDF (application/pdf)
 - compressed (application/zip)
 - Postscript (application/eps)
 - RTF (text/rtf)
 - Text (text/plain)

EXAMPLE DATA FOR ATTACHMENT

```
<attachments>
```

```
  <binary ID="thing1" encoding="Base64"  
    source="application/pdf">
```

```
  <![CDATA[
```

```
JVBERi0xLjQKJeTjz9IKMSAwIG9iagpbL1BERi9JbWFnZUIvSW1hZ2VD  
L0ltYWdlSS9UZXh0XQplbmRv . . . DEzOTUKJSVFT0YK
```

```
]]>
```

```
  </binary>
```

```
</attachments>
```



EXAMPLE ATTACHMENT RENDERING

The screenshot shows the Adobe Reader interface for a PDF document titled "S2377-1.pdf". The document content is as follows:

1.1 A bill for an act
1.2 relating to health; modifying basic life support ambulance staffing requirements
1.3 under certain circumstances; allowing a hardship waiver of advanced life support
1.4 ambulance staffing requirements; modifying advanced life support ambulance
1.5 staffing requirements under certain circumstances; amending Minnesota Statutes
1.6 2006, section 144E.101, subdivision 7; Minnesota Statutes 2007 Supplement,
1.7 section 144E.101, subdivision 6.

1.8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.9 Section 1. Minnesota Statutes 2007 Supplement, section 144E.101, subdivision 6,
1.10 is amended to read:

1.11 Subd. 6. **Basic life support.** (a) Except as provided in ~~paragraph~~ paragraphs
1.12 (e) and (f), a basic life support ambulance shall be staffed by at least two ambulance
1.13 ~~service personnel, at least one of which must be an EMT, who~~ EMTs, one of whom must
1.14 accompany the patient and provide a level of care so as to ensure that:

1.15 (1) life-threatening situations and potentially serious injuries are recognized;
1.16 (2) patients are protected from additional hazards;
1.17 (3) basic treatment to reduce the seriousness of emergency situations is administered;

LIMITATIONS OF CURRENT POC

- Wrapper is generic
 - source XML is not validated (CDATA marked section)
- Only one provider
- Methods to "wrap" and "unwrap" not included



NEXT STEPS

- Complete proof-of-concept with MN Revisor's Office
- Plan next POC

QUESTIONS?



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