COMMON DATA FORMAT IN ELECTION RESULTS REPORTING

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Background and Need

- Request of District of Columbia officials to provide Washington Post technology staff guidance on developing an election results platform for 2012 election.

- Opportunity for this Consortium to address this request and other common practice opportunities among states.

- Existing data standards identified for elections, notably EML
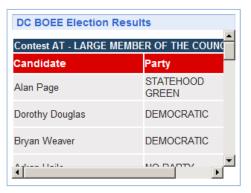
2011 Proof of Concept

- In 2011 April special election, DC BOEE produced XML feed to provide data to media outlets using a schema developed in-house

- DC BOEE produced election XSLT to produce formatted election results reports

- Used XML to generate Google Gadget

2011 Example

XSLT

Contest AT - LARGE MEMBER OF THE COUNCIL

Candidate	Party	Votes
Alan Page	STATEHOOD GREEN	610
Dorothy Douglas	DEMOCRATIC	787
Bryan Weaver	DEMOCRATIC	6069
Arkan Haile	NO PARTY	137
Joshua Lopez	DEMOCRATIC	3343
Patrick Mara	REPUBLICAN	11851
Sekou Biddle	DEMOCRATIC	9373
Tom Brown	DEMOCRATIC	1036
Vincent Orange	DEMOCRATIC	13583
Write-in At Large		178

Contest MEMBER STATE BOARD OF EDUCATION WARD FOUR

Candidate	Party	Votes
Andrew Moss		2553
D. Kamili Anderson		2787
Bill Quirk		672
An Almquist		629
Write-in Board of Education (4)		164

*i*Google **Gadgets**   **Ther**

DC BOEE Election Results

Contest AT - LARGE MEMBER OF THE COUNC

Candidate	Party
Alan Page	STATEHOOD GREEN
Dorothy Douglas	DEMOCRATIC
Bryan Weaver	DEMOCRATIC
Arkan Haile	NO PARTY

Google Gadget

XML

```
<?xml version="1.0" encoding="ISO-8859-1"?><?xml-stylesheet
type="text/xsl" href="xml_consume.xsl"?><DCBOEE><election
ELECTION_NAME="2011 Special Election" election_date="2011-04-26"><CONTEST
CONTEST_NAME="AT - LARGE MEMBER OF THE COUNCIL"
BALLOT_ORDER="1"><CANDIDATE BALLOT_NAME="Alan Page" PARTY="STATEHOOD
GREEN" CANDIDATE_ORDER="1"><PRECINCT PRECINCT_NAME="PRECINCT 1"
PRECINCT_NUMBER="1" WARD="6" TOTAL_VOTES="2"/><PRECINCT
PRECINCT_NAME="PRECINCT 2" PRECINCT_NUMBER="2" WARD="2"
TOTAL_VOTES="0"/><PRECINCT PRECINCT_NAME="PRECINCT 3" PRECINCT_NUMBER="3"
WARD="2" TOTAL_VOTES="6"/><PRECINCT PRECINCT_NAME="PRECINCT 4"
PRECINCT_NUMBER="4" WARD="2" TOTAL_VOTES="1"/><PRECINCT
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TOTAL_VOTES="3"/><PRECINCT PRECINCT_NAME="PRECINCT 6" PRECINCT_NUMBER="6"
WARD="2" TOTAL_VOTES="4"/><PRECINCT PRECINCT_NAME="PRECINCT 7"
PRECINCT_NUMBER="7" WARD="3" TOTAL_VOTES="4"/><PRECINCT
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TOTAL_VOTES="3"/><PRECINCT PRECINCT_NAME="PRECINCT 9" PRECINCT_NUMBER="9"
WARD="3" TOTAL_VOTES="1"/><PRECINCT PRECINCT_NAME="PRECINCT 10"
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TOTAL_VOTES="6"/><PRECINCT PRECINCT_NAME="PRECINCT 20"
PRECINCT_NUMBER="20" WARD="1" TOTAL_VOTES="1"/><PRECINCT
PRECINCT_NAME="PRECINCT 21" PRECINCT_NUMBER="21" WARD="2"
TOTAL_VOTES="0"/><PRECINCT PRECINCT_NAME="PRECINCT 22"
```

Plan for 2012

- Adopt a common framework based on EML 510/520/530

- Develop a common set of XSL transformations for media use

- Deploy results via Google Gadget for cloud-based consumption

- Development of XSLT for data conversion from vote tabulation systems

EML 510/520/530

- EML 510 contains contest information, reporting units and results, including:
  - Precincts reported
  - Candidate names
  - Voting precincts
- EML 520 contains election results data
- EML 530 contains jurisdiction statistics, including:
  - Turnout statistics
  - Reporting times

EML 520 XSL Example

```xml
<?xml version="1.0" encoding="ISO-8859-1"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"><xsl:template match="/">
 <html> <body>- Election Results  <xsl:for-each select="//Election/Contest">
   <h2><xsl:value-of select="ElectionIdentifier/@Id"/></h2>
   <h2><xsl:value-of select="ContestIdentifier/@Id"/></h2>
   <table border="0" width="100%">      <tr bgcolor="#9acd32">
     <th align="left" width="40%">Candidate</th>
     <th align="left" width="40%">Affilation</th>
     <th align="left" width="20%">Votes</th>    </tr>    <xsl:for-each select="Selection">     <xsl:if test="CandidateIdentifier/CandidateName != 'NONE'">
     <tr>      <td align="left" width="40%"><xsl:value-of select="CandidateIdentifier/CandidateName" /></td>
     <td align="left" width="40%"><xsl:value-of select="Affiliation/AffiliationIdentifier/RegisteredName" /></td>
      <xsl:if test="Votes &gt; 0">
       <td align="left" width="20%"><xsl:value-of select="Votes" /></td>
      </xsl:if>
      <xsl:if test="Votes &lt; 1">
       <td align="left" width="20%"></td>
      </xsl:if>
     </tr>
    </xsl:if>
    </xsl:for-each>
   </table>
   <hr/>
  </xsl:for-each>
</body>
 </html>
</xsl:template></xsl:stylesheet>
```

Deployment Plan

- States will develop independent plans for deployment using EML Schema documentation
- States will host XML files locally on state resources
- Consortium will coordinate with media outlets for publication of results

Future Direction

Group will coordinate efforts with:

- NIST and IEEE

- Offer other states the opportunity to benefit from results

- Allow development of election results reporting in the public domain