

Annex A

(normative)

XML schema documentation

The following clauses contain discussion of the elements and attributes included in the XML schema.

In the clauses below, an element is referred to as a “sub-element” when it is included in another element, e.g., Election is a sub-element of ElectionReport. “Includes” is used to denote that an element contains another element as a sub-element, e.g., ElectionReport includes Election. “References” is used to denote one element linking to a second element via the second element’s ObjectId attribute, e.g., Candidate references Party.

A.1 Elements

A.1.1 BallotSelection and xsi:type BallotMeasureSelection, CandidateSelection, and PartySelection

Used for the ballot selections in a contest (e.g., for candidates, for ballot measures) and to generally link them to vote counts. Contest includes BallotSelection.

There are three types of ballot selections that get used according to the contest type:

- BallotMeasureSelection, used if the contest type is for a ballot measure, including for retentions (see Clause A.1.1.1)
- CandidateSelection, used if the contest type is for one or more candidates, to link the ballot selection to the candidate elements and endorsement parties (see Clause A.1.1.2).
- PartySelection, used if the contest type is for a party, e.g., for a straight party contest (see Clause A.1.1.3)

BallotSelection references these as xsi:types. Accordingly, the syntax for each of the types is:

```
<BallotSelection xsi:type="BallotMeasureSelection" ... />
<BallotSelection xsi:type="CandidateSelection" ... />
<BallotSelection xsi:type="PartySelection" ... />
```

BallotSelection includes VoteCounts for associating vote counts with the ballot selection. BallotSelection “wraps” occurrences of VoteCounts elements in a container element for the purpose of making large instance files easier to manipulate in XML viewers and editors.

See also Clause **Error! Reference source not found.** for additional information about BallotSelection usage.

Attributes:

| Attribute | Required | Type | Description |
|-----------|----------|--------|----------------------------------------|
| objectId | yes | xsd:ID | Unique identifier for this XML object. |

Table A.1— Attributes for BallotSelection

Elements:

| Element | Multiplicity | Type | Description |
|------------|--------------|------------|--------------------------------------------------|
| VoteCounts | 0 or 1 | VoteCounts | For associating votes with the ballot selection. |

Table A.2— Elements for BallotSelection

Definition:

```

<xsd:complexType name="BallotSelection" abstract="true">
  <xsd:sequence>
    <xsd:element name="VoteCountsCollection" minOccurs="0" maxOccurs="unbounded">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="VoteCounts" type="VoteCounts" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
  </xsd:sequence>
  <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
</xsd:complexType>

```

A.1.1.1 BallotMeasureSelection (extension base BallotSelection)

For a ballot selection in a ballot measure contest, including for judicial retention contests. It is an xsi:type of BallotSelection and inherits BallotSelection’s attributes and elements. Its syntax is:

```
<BallotSelection xsi:type="BallotMeasureSelection" ... />
```

Attributes: (NOTE—see Table A.1— Attributes for BallotSelection)

| Attribute | Required | Type | Description |
|-----------|----------|------------|-----------------------------------------------------------------------------------|
| Selection | yes | xsd:string | For the string used to vote for or against the ballot measure, e.g., "yes", "no". |

Table A.3—Attributes for BallotMeasureSelection

Elements: none. (NOTE—see Table A.2— Elements for BallotSelection)

Definition:

```

<xsd:complexType name="BallotMeasureSelection">
  <xsd:complexContent>
    <xsd:extension base="BallotSelection">
      <xsd:attribute name="Selection" type="xsd:string" use="required"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

```

A.1.1.2 CandidateSelection (extension base BallotSelection)

For the ballot selections in a candidate contest, including for write-ins. It is an xsi:type of BallotSelection and inherits BallotSelection’s attributes and elements. References to multiple Candidate elements can be included when the contest involves a ticket, e.g., the Presidential ticket. Its syntax is:

```
<CandidateSelection xsi:type="BallotSelection" ... />
```

EndorsementPartyId is used to reference any associated endorsement parties other than the specific party of the candidate (Candidate references Party for that purpose). For example, if a Republican candidate is also endorsed by the Libertarian party, use EndorsementPartyId to reference the Libertarian party.

When multiple candidates are referenced for a ticket and the ordering of the candidates is important to preserve, it is expected that the generating application will list the occurrences of CandidateId according to the ordering scheme in place.

Attributes: (NOTE—see Table A.1— Attributes for BallotSelection)

| Attribute | Required | Type | Description |
|-----------|----------|-------------|--------------------------------------------------------------------------------------------------------|
| IsWriteIn | no | xsd:boolean | Indicates whether the candidate is a write-in, e.g., “yes” or “no”. Assumed to be “no” if not present. |

Table A.4— Attributes for CandidateSelection

Elements: (NOTE—see Table A.2— Elements for BallotSelection)

| Element | Multiplicity | Type | Description |
|--------------------|--------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CandidateId | 0 or more | xsd:IDREF | Unique identifier for a Candidate element. For associating a candidate with the candidate selection on the ballot. The multiplicity is unlimited for cases where the ballot selection is for multiple candidates, e.g., a ticket. |
| EndorsementPartyId | 0 or more | xsd:IDREF | Unique identifier for a Party element. For associating one or more endorsing parties with the candidate selection. |

Table A.5— Elements for CandidateSelection

Definition:

```
<xsd:complexType name="CandidateSelection">
  <xsd:complexContent>
    <xsd:extension base="BallotSelection">
      <xsd:sequence>
        <xsd:element name="CandidateId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="EndorsementPartyId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
      </xsd:sequence>
      <xsd:attribute name="IsWriteIn" type="xsd:boolean"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

A.1.1.3 PartySelection (extension base BallotSelection)

For a ballot selection involving a party such as for a straight party selection on the ballot. It is an xsi:type of BallotSelection and inherits BallotSelection’s attributes and elements. Its syntax is:

```
<BallotSelection xsi:type="PartySelection" ... />
```

Attributes: none. (NOTE—see Table A.1— Attributes for BallotSelection)

Elements: (NOTE—see Table A.2— Elements for BallotSelection)

| Element | Multiplicity | Type | Description |
|---------|--------------|-----------|------------------------------------------------------------------------------------------------------|
| PartyId | 0 or more | xsd:IDREF | Unique identifier for a Party element. For associating one or more parties with the party selection. |

Table A.6— Elements for CandidateSelection

Definition:

```
<xsd:complexType name="PartySelection">
  <xsd:complexContent>
    <xsd:extension base="BallotSelection">
      <xsd:sequence>
        <xsd:element name="PartyId" type="xsd:IDREF" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

A.1.2 BallotStyle and OrderedContest

For defining a ballot style composed of contests and their ballot selections, and associating it with a GpUnit element defined for a precinct or other geo-political unit that the ballot is unique to. Election includes BallotStyle.

To preserve any rotation associated with the ballot, it is expected that the generating application will list the occurrences of OrderedContest and OrderedBallotSelectionId in the order as on the ballot for the associated geo-political unit.

Attributes for BallotStyle:

| Attribute | Required | Type | Description |
|-----------|----------|------------|-------------------------------------------------------|
| objectId | yes | xsd:ID | Unique identifier for this XML object. |
| Id | no | xsd:string | ID for use as needed, e.g., for a mandated ID scheme. |

Table A.7— Attributes for BallotStyle

Elements for BallotStyle:

| Element | Multiplicity | Type | Description |
|----------------|--------------|----------------|--------------------------------------------------------------------------------------------------------------|
| GpUnitId | 1 | xsd:IDREF | Unique identifier for a GpUnit element. For associating a specific geo-political unit with the ballot style. |
| ImageUri | 0 or more | xsd:anyURI | URI for a ballot image. |
| OrderedContest | 0 or more | OrderedContest | For associating contests in the order as listed on ballot. |
| PartyId | 0 or more | xsd:IDREF | Unique identifier for a Party element. For associating a party with the ballot style. |

Table A.8— Elements for BallotStyle

Definition for BallotStyle:

```
<xsd:complexType name="BallotStyle">
  <xsd:sequence>
    <xsd:element name="ImageUri" type="xsd:anyURI" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="OrderedContest" type="OrderedContest" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="PartyId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="GpUnitId" type="xsd:IDREF" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="Id" type="xsd:string"/>
</xsd:complexType>
```

Attributes for OrderedContest:

| Attribute | Required | Type | Description |
|-----------|----------|--------|----------------------------------------|
| objectId | yes | xsd:ID | Unique identifier for this XML object. |

Table A.9— Attributes for OrderedContest

Elements for OrderedContest:

| Element | Multiplicity | Type | Description |
|--------------------------|--------------|-----------|------------------------------------------------------------------------------------------------------|
| OrderedBallotSelectionId | 0 or more | xsd:IDREF | Unique identifier for a BallotSelection element. For associating ballot selections with the contest. |
| ContestId | 1 | xsd:IDREF | Unique identifier for a Contest element. For associating a contest on the ballot. |

Table A.10— Elements for OrderedContest

Definition for OrderedContest:

```
<xsd:complexType name="OrderedContest">
  <xsd:sequence>
    <xsd:element name="ContestId" type="xsd:IDREF"/>
    <xsd:element name="OrderedBallotSelectionId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

A.1.3 Candidate

For defining information about a candidate in a contest. CandidateSelection references occurrences of Candidate to associate one or more candidates with a ballot selection. Election includes Candidate.

When including Code, if the code type is not listed in enumeration CodeType, use “Other” and include the code type (that is not listed in the enumeration) in OtherType.

Attributes:

| Attribute | Required | Type | Description |
|--------------------|----------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| objectId | yes | xsd:ID | Unique identifier for this XML object. |
| FileDate | no | xsd:dateTime | Date and time when the candidate filed for the contest. |
| Id | no | xsd:string | ID for use as needed, e.g., for a mandated ID scheme. |
| IsIncumbent | no | xsd:boolean | Boolean to indicate whether the candidate is the incumbent for the office associated with the contest. Assumed to be “no” if not present. |
| IsTopTicket | no | xsd:boolean | Boolean to indicate whether the candidate is the top of a ticket that includes multiple candidates. Assumed to be “no” if not present. |
| PostElectionStatus | no | CandidatePostElectionStatus | Final status of the candidate, e.g., winner, withdrawn, etc. |
| PreElectionStatus | no | CandidatePreElectionStatus | Registration status of the candidate, e.g., filed, qualified, etc. |
| SequenceOrder | no | xsd:integer | For an order in which the candidate can be listed on the ballot or in results. If not present, no order is assumed. |

Table A.11— Attributes for Candidate

Elements:

| Element | Multiplicity | Type | Description |
|------------|--------------|-----------------------|--------------------------------------------------------------------------------------------------------|
| BallotName | 1 | InternationalizedText | For the candidate's name as listed on the ballot. |
| Code | 0 or more | Code | For associating codes with the contest. |
| Party | 0 or 1 | xsd:IDREF | Unique identifier for a Party element. For associating a party with the candidate. |
| Person | 0 or 1 | xsd:IDREF | Unique identifier for a Person element. For associating more detailed information about the candidate. |

Table A.12— Elements for Candidate

Definition:

```

<xsd:complexType name="Candidate">
  <xsd:sequence>
    <xsd:element name="BallotName" type="InternationalizedText"/>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="PartyId" type="xsd:IDREF" minOccurs="0"/>
    <xsd:element name="PersonId" type="xsd:IDREF" minOccurs="0"/>
  </xsd:sequence>
  <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
  <xsd:attribute name="FileDate" type="xsd:dateTime"/>
  <xsd:attribute name="Id" type="xsd:string"/>
  <xsd:attribute name="IsIncumbent" type="xsd:boolean"/>
  <xsd:attribute name="IsTopTicket" type="xsd:boolean"/>
  <xsd:attribute name="PostElectionStatus" type="CandidatePostElectionStatusesType"/>
  <xsd:attribute name="PreElectionStatus" type="CandidatePreElectionStatusesType"/>
  <xsd:attribute name="SequenceOrder" type="xsd:integer"/>
</xsd:complexType>

```

A.1.4 Code

For associating a jurisdiction’s codes, i.e., identifiers, with objects such as candidates, offices, or geo-political units such as counties, towns, precincts, etc. Multiple occurrences of Code can be used to associate multiple codes, e.g., if there is a desire to associate multiple codes with a particular object (FIPS as well as OCD-IDs), as follows:

```

<GpUnit xsi:type="State" Name="WV" ... >
  <Code Type="Fips" Value="54"/>
  <Code Type="OcdId" Value="ocd-division/country:us/state:wv"/>
  ...
</GpUnit>

```

For elements that include Code, if the code type is not listed in enumeration CodeType, use “Other” and include the code type (that is not listed in the enumeration) in OtherType, e.g.,

```

<Code Type="Other" Value="101-A" OtherType="Ohio County Precincts">

```

Attributes:

| Attribute | Required | Type | Description |
|-----------|----------|------------|--------------------------------|
| OtherType | no | xsd:string | Used when CodeType is “Other”. |
| Value | yes | xsd:string | Code used by the jurisdiction. |
| Type | yes | CodeType | A code type, e.g., FIPS. |

Table A.13— Attributes for Code

Elements: none.

Definition:

```

<xsd:complexType name="Code">
  <xsd:attribute name="OtherType" type="xsd:string"/>
  <xsd:attribute name="Type" type="Codes" use="required"/>
  <xsd:attribute name="Value" type="xsd:string" use="required"/>
</xsd:complexType>

```

A.1.5 ContactInformation

For defining contact information about objects such as persons, boards of authorities, organizations, etc. Person, GpUnit, and Office include ContactInformation.

Multiple occurrences of AddressLine are used to build an address of the contact. It is expected that the generating application will list the name of the person/organization in the first occurrence of AddressLine, with subsequent ordered occurrences for street address, city, state, zip code, etc.

Attributes: none.

Elements:

| Attribute | Multiplicity | Type | Description |
|-------------|--------------|------------|----------------------------------------------|
| AddressLine | 0 or more | xsd:string | For associating an address with the contact. |
| Email | 0 or more | xsd:string | Email address associated with the contact. |
| Fax | 0 or more | xsd:string | Fax number associated with the contact. |
| Name | 0 or 1 | xsd:string | Name associated with the contact. |
| Phone | 0 or more | xsd:string | Phone number associated with the contact. |
| Schedule | 0 or more | schedule | For associating a schedule with the contact. |
| Uri | 0 or more | xsd:anyURI | URI associated with the contact. |

Table A.14— Elements for ContactInformation

Definition:

```
<xsd:complexType name="ContactInformation">
  <xsd:sequence>
    <xsd:element name="Name" type="xsd:string" minOccurs="0"/>
    <xsd:element name="AddressLine" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Email" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Fax" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Phone" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Schedule" type="Schedule" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Uri" type="xsd:anyURI" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

A.1.6 Contest and xsi:types BallotMeasureContest, CandidateContest, PartyContest, and RetentionContest

For defining a contest and, ultimately, linking the contest to the associated candidates or ballot measures. Election includes Contest. There are four types of contests defined:

- BallotMeasureContest, used for a contest involving a ballot measure or judicial retention (see Clause A.1.6.1)
- CandidateContest, used for a contest involving one or more candidates for an office (see Clause A.1.6.2)
- PartyContest, used for a contest for a straight party selection on the ballot (see Clause A.1.6.3)
- RetentionContest, used for a judicial or other type of retention contest (see Clause A.1.6.4)

Contest references these as xsi:types. Accordingly, the syntax for each of the types is:

```
<Contest xsi:type="BallotMeasureContest" ... />
<Contest xsi:type="CandidateContest" ... />
<Contest xsi:type="PartyContest" ... />
<Contest xsi:type="RetentionContest" ... />
```

The elements above are used to include relevant information for that type of contest, e.g., CandidateContest is used to include information such as the associated office and the number of candidates that can be voted for.

Contest includes a required JurisdictionalScopeId reference to a GpUnit defined for the geographical scope of the contest. For example, in a state senate contest, JurisdictionalScopeId would reference a GpUnit

ReportingUnit element defined for the district associated with the contest (Office also includes an optional reference that serves the same purpose).

Contest also includes SummaryCounts for providing a summary of miscellaneous counts associated with the contest, including total number of ballots cast containing the contest, total number of overvotes, undervotes, or write-ins. The summary counts can be associated with the contest as a whole, or with precincts or other lower-level reporting units by using multiple occurrences of GpUnitId.

When including Code, if the code type is not listed in enumeration CodeType, use “Other” and include the code type (that is not listed in the enumeration) in OtherType.

Clause **Error! Reference source not found.** describes usage for Contest in more detail.

Attributes:

| Attribute | Required | Type | Description |
|------------------------|----------|-------------------|-----------------------------------------------------------------------------------------------------------|
| ObjectId | yes | xsd:ID | Unique identifier for this XML object. |
| Abbreviation | no | xsd:string | Abbreviation for the contest. |
| HasRotation | no | xsd:boolean | Boolean to indicate whether the selections in the contest are rotated. Assumed to be “no” if not present. |
| Name | yes | xsd:string | Name of the contest, not necessarily as it appears on the ballot (use BallotTitle for this). |
| OtherVoteVariationType | no | xsd:string | For use when VoteVariationType is “Other”. |
| SequenceOrder | no | xsd:integer | Order in which the candidates are listed on the ballot. If not present, no order is assumed. |
| SubUnitsReported | no | xsd:integer | Number of subunits, e.g., precincts, that have completed reporting votes for this contest. |
| TotalSubUnits | no | xsd:integer | Total number of subunits, e.g., precincts, that have this contest on the ballot. |
| VoteVariationType | no | voteVariationType | Vote variation associated with the contest, e.g., N-of-M. |

Table A.15— Attributes for Contest

Elements:

| Element | Multiplicity | Type | Description |
|-----------------------|--------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BallotSelection | 0 or 1 | BallotSelection | For associating a ballot selection for the contest, i.e., a candidate, a ballot measure. |
| BallotSubTitle | 0 or 1 | InternationalizedText | Subtitle of the contest as it appears on the ballot. |
| BallotTitle | 0 or 1 | InternationalizedText | Title of the contest as it appears on the ballot. |
| Code | 0 or more | Code | For associating a code with the contest. |
| JurisdictionalScopeId | 1 or more | xsd:IDREF | Unique identifier for a GpUnit element. For associating the contest with a reporting unit that represents the geographical scope of the contest, e.g., a district, etc. |
| SummaryCounts | 0 or more | SummaryCounts | Vote summary counts (overvotes, undervotes, total ballots, etc.) optionally broken down by device type and ballot class, optionally broken down by lower-level reporting units such as precincts. |

Table A.16— Elements for Contest

Definition:

```

<xsd:complexType name="Contest" abstract="true">
  <xsd:sequence>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="BallotTitle" type="InternationalizedText" minOccurs="0"/>
    <xsd:element name="BallotSubTitle" type="InternationalizedText" minOccurs="0"/>
    <xsd:element name="BallotSelection" type="BallotSelection" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="JurisdictionalScopeId" type="xsd:IDREF"/>
    <xsd:element name="SummaryCounts" type="SummaryCounts" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
  <xsd:attribute name="Abbreviation" type="xsd:string"/>
  <xsd:attribute name="HasRotation" type="xsd:boolean"/>
  <xsd:attribute name="Name" type="xsd:string" use="required"/>
  <xsd:attribute name="OtherVoteVariationType" type="xsd:string"/>
  <xsd:attribute name="SequenceOrder" type="xsd:integer"/>
  <xsd:attribute name="SubUnitsReported" type="xsd:integer"/>
  <xsd:attribute name="TotalSubUnits" type="xsd:integer"/>
  <xsd:attribute name="VoteVariationType" type="VoteVariationType"/>
</xsd:complexType>

```

A.1.6.1 BallotMeasureContest (extension base Contest)

For ballot measure (i.e., referenda or a tax measure) and judicial retention contests. It is an xsi:type of Contest and inherits Contest's attributes and elements. Its syntax is:

```
<Contest xsi:type="BallotMeasureContest" ... />
```

Attributes: (NOTE—see Table A.15— Attributes for Contest)

| Attribute | Required | Type | Description |
|-----------|----------|-------------------|--------------------------------------------|
| Type | yes | BallotMeasureType | For indicating the type of ballot measure. |
| otherType | no | xsd:string | Used when BallotMeasureType is "Other". |

Table A.17—Attributes for BallotMeasureContest

Elements: (NOTE—see Table A.16— Elements for Contest)

| Element | Multiplicity | Type | Description |
|------------------|--------------|-----------------------|------------------------------------------------------------------------------------------------------------------|
| ConStatement | 0 or 1 | InternationalizedText | For a statement on the ballot associated with a “no” vote. |
| EffectOfAbstain | 0 or 1 | InternationalizedText | For a statement on the ballot detailing the effect of abstaining from voting on the ballot measure. |
| FullText | 0 or 1 | InternationalizedText | For full text on the ballot of the ballot measure. |
| PassageThreshold | 0 or 1 | InternationalizedText | For a statement on the ballot of the number or percentage of votes needed to approve or pass the ballot measure. |
| ProStatement | 0 or 1 | InternationalizedText | For a statement on the ballot associated with a “yes” vote. |
| SummaryText | 0 or 1 | InternationalizedText | For a summary on the ballot of the ballot measure. |

Table A.18—Elements for BallotMeasureContest

Definition:

```

<xsd:complexType name="BallotMeasureContest">
  <xsd:complexContent>
    <xsd:extension base="Contest">
      <xsd:sequence>
        <xsd:element name="SummaryText" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="FullText" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="ProStatement" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="ConStatement" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="EffectOfAbstain" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="PassageThreshold" type="InternationalizedText" minOccurs="0"/>
      </xsd:sequence>
      <xsd:attribute name="OtherType" type="xsd:string"/>
      <xsd:attribute name="Type" type="BallotMeasureType" use="required"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

```

A.1.6.2 CandidateContest (extension base Contest)

For a contest that involves selecting one or more candidates. It is an xsi:type of Contest and inherits Contest’s attributes and elements. Its syntax is:

```
<Contest xsi:type="CandidateContest" ... />
```

CandidateContest references Office. For cases when the contest is associated with multiple offices, e.g., Governor and Lt. Governor, and the order of the offices is important to preserve, it is expected that the generating application will list the references to Office according to the ordering scheme in place.

Attributes: (NOTE—see Table A.15— Attributes for Contest)

| Attribute | Required | Type | Description |
|---------------|----------|-------------|-----------------------------------------------------------------------|
| NumberElected | yes | xsd:integer | Number of candidates that are elected in the contest ("N" of N-of-M). |
| VotesAllowed | yes | xsd:integer | Maximum number of votes/write-ins per voter in this contest. |

Table A.19— Attributes for CandidateContest

Elements: (NOTE—see Table A.16— Elements for Contest)

| Element | Multiplicity | Type | Description |
|----------------|--------------|-----------|--------------------------------------------------------------------------------------------------|
| OfficeId | 0 or 1 | xsd:IDREF | Unique identifier for an Office element. For associating an office description with the contest. |
| PrimaryPartyId | 0 or 1 | xsd:IDREF | Unique identifier for a Party element. For associating a party with the contest. |

Table A.20— Elements for CandidateContest

Definition:

```

<xsd:complexType name="CandidateContest">
  <xsd:complexContent>
    <xsd:extension base="Contest">
      <xsd:sequence>
        <xsd:element name="OfficeId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="PrimaryPartyId" type="xsd:IDREF" minOccurs="0"/>
      </xsd:sequence>
      <xsd:attribute name="NumberElected" type="xsd:integer"/>
      <xsd:attribute name="VotesAllowed" type="xsd:integer" use="required"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

```

A.1.6.3 PartyContest (extension base Contest)

For a contest that involves choosing a party, typically for a straight party selection on the ballot. It is an xsi:type of Contest. Its syntax is:

```
<Contest xsi:type="PartyContest" ... />
```

Attributes: none. (NOTE—see Table A.15— Attributes for Contest)

Elements: none. (NOTE—see Table A.16— Elements for Contest)

Definition:

```

<xsd:complexType name="PartyContest">
  <xsd:complexContent>
    <xsd:extension base="Contest"/>
  </xsd:complexContent>
</xsd:complexType>

```

A.1.6.4 RetentionContest (extension base BallotMeasureContest and Contest)

For a contest for judicial retention or other types of retention in which additional information about the candidate or the office is necessary. Retention contests are treated essentially as ballot measure contests, however RetentionContest differs from BallotMeasureContest in that it can include a reference to a candidate or the associated office (if no such references are required, BallotMeasureContest can possibly be used).

RetentionContest is an xsi:type of Contest and also uses BallotMeasureContest as an extension base. Thus, it inherits attributes and elements from both Contest and BallotMeasureContest. Its syntax is:

```
<Contest xsi:type="RetentionContest" ... />
```

Attributes: none. (NOTE—see Table A.15— Attributes for Contest)

Elements: (NOTE—see Table A.16— Elements for Contest)

| Element | Multiplicity | Type | Description |
|-------------|--------------|-----------|------------------------------------------------------------------------------------------------------------|
| CandidateId | 1 | xsd:IDREF | Unique identifier for a Candidate element. For associating a candidate with the retention contest. |
| OfficeId | 0 or 1 | xsd:IDREF | Unique identifier for an Office element. For associating an office description with the retention contest. |

Table A.21— Elements for RetentionContest

Definition:

```

<xsd:complexType name="RetentionContest">
  <xsd:complexContent>

```

```

<xsd:extension base="BallotMeasureContest">
  <xsd:sequence>
    <xsd:element name="CandidateId" type="xsd:IDREF"/>
    <xsd:element name="OfficeId" type="xsd:IDREF" minOccurs="0"/>
  </xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>

```

A.1.7 CountStatus

For reporting on the counting status of various types of ballots or other items, i.e., whether counts are in progress, not yet started, complete, etc. Election and GpUnit include CountStatus.

Attributes:

| Attribute | Required | Type | Description |
|-----------|----------|-----------------|--------------------------------|
| otherType | no | xsd:string | Used when CodeType is "Other". |
| Status | yes | ReportingStatus | Code used by the jurisdiction. |
| Type | yes | CountItemType | A code type, e.g., FIPS. |

Table A.22—Attributes for CountStatus

Elements: none.

Definition:

```

<xsd:complexType name="CountStatus">
  <xsd:attribute name="otherType" type="xsd:string"/>
  <xsd:attribute name="Status" type="ReportingStatus" use="required"/>
  <xsd:attribute name="Type" type="CountItemType" use="required"/>
</xsd:complexType>

```

A.1.8 Counts (abstract)

Counts is used only as an extension base for the following elements and is otherwise not referenced directly:

- SummaryCounts, for reporting on contest and geo-political unit summary vote counts (see Clause A.1.20)
- VoteCounts, for reporting on contest vote counts (see Clause A.1.21)

These elements inherit the attributes and elements of Counts. Counts provides the capability to filter vote counts by device characteristics or by various types of ballots or write-ins, or to link the counts to a GpUnit such as a precinct.

Attributes:

| Attribute | Required | Type | Description |
|-----------|----------|---------------|-----------------------------------------------------------------------------------------------------|
| otherType | no | xsd:string | Used when Type is "Other". |
| Type | no | CountItemType | The type of count being used as a filter on the vote counts, e.g., election day, early voting, etc. |

Table A.23— Attributes for Counts

Elements:

| Element | Multiplicity | Type | Description |
|---------|--------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------|
| Device | 0 or 1 | Device | For filtering the vote counts by device type. |
| GpUnit | 0 or 1 | xsd:IDREF | Unique identifier for a GpUnit element. For associating counts with a geo-political unit, e.g., a precinct, a county, a township, etc. |

Table A.24— Elements for Counts

Definition:

```
<xsd:complexType name="Counts" abstract="true">
  <xsd:sequence>
    <xsd:element name="Device" type="Device" minOccurs="0"/>
    <xsd:element name="GpUnitId" type="xsd:IDREF" minOccurs="0"/>
  </xsd:sequence>
  <xsd:attribute name="OtherType" type="xsd:string"/>
  <xsd:attribute name="Type" type="CountItemType"/>
</xsd:complexType>
```

A.1.9 Device

For filtering vote counts by various attributes associated with devices. GpUnit and SummaryCounts/VoteCounts include Device.

If manual counting of ballots is being employed, use DeviceType enumeration value “ManualCount”.

Attributes:

| Attribute | Required | Type | Description |
|--------------|----------|------------|-----------------------------------------------------------------------------------------------------|
| Manufacturer | no | xsd:string | Manufacturer of the device. |
| Model | no | xsd:string | Manufacturer’s device model, used to filter on, e.g., a specific model of DRE or other device type. |
| Type | yes | DeviceType | Enumerated type of device, e.g., DRE, opscan-precinct, etc. |

Table A.25— Attributes for Device

Elements: none.

Definition:

```
<xsd:complexType name="Device">
  <xsd:attribute name="Manufacturer" type="xsd:string"/>
  <xsd:attribute name="Model" type="xsd:string"/>
  <xsd:attribute name="Type" type="DeviceType"/>
</xsd:complexType>
```

A.1.10 Election

For defining the status of the election and associated information such as candidates, contests, and vote counts.

Election includes the major elements that are specific to an election: BallotStyle, Candidate, and Contest. Election “wraps” occurrences of these elements in container elements for the purpose of making large instance files easier to manipulate in XML viewers and editors.

Election includes a required ElectionScopeId reference to a GpUnit for the purpose of identifying the geographical scope of the election. For example, for an election within a county, ElectionScopeId would include a reference to a GpUnit ReportingUnit defined for the county.

Attributes:

| Attribute | Required | Type | Description |
|-----------|----------|--------------|-------------------------------------------------------------------------|
| Date | yes | xsd:date | Calendar date of the election, e.g., "November 4, 2014". |
| EndDate | no | xsd:date | For an election that spans a period of days. |
| Type | yes | ElectionType | Enumerated type of election, e.g., partisan primary, open primary, etc. |

Table A.26— Attributes for Election

Elements:

| Element | Multiplicity | Type | Description |
|--------------------|--------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BallotStyle | 0 or more | BallotStyle | For defining ballot styles associated with the election. |
| Candidate | 0 or more | Candidate | For defining candidates associated with the election. |
| Code | 0 or more | Code | For associating a code with the election. |
| ContactInformation | 0 or more | ContactInformation | For associating various contact information with the election. |
| Contest | 0 or more | Contest | For defining contests associated with the election. |
| CountStatus | 0 or more | CountStatus | For providing various counting status on types of ballots or other items. |
| ElectionScopeId | 1 | xsd:IDREF | Unique identifier for a GpUnit element. For associating the election with a reporting unit that represents the geographical scope of the election, e.g., a state, a county, etc. |
| Name | 1 | InternationalizedText | The name of the election, can be used as the name of the election on the ballot. |

Table A.27— Elements for Election

Definition:

```

<xsd:complexType name="Election">
  <xsd:sequence>
    <xsd:element name="Name" type="InternationalizedText"/>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="ContactInformation" type="ContactInformation" minOccurs="0"/>
    <xsd:element name="ElectionScopeId" type="xsd:IDREF"/>
    <xsd:element name="CountStatus" type="CountStatus" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="BallotStyleCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="BallotStyle" type="BallotStyle" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="CandidateCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="Candidate" type="Candidate" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="ContestCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="Contest" type="Contest" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
  </xsd:sequence>
  <xsd:attribute name="Date" type="xsd:date" use="required"/>
  <xsd:attribute name="EndDate" type="xsd:date"/>
  <xsd:attribute name="Type" type="ElectionType" use="required"/>
</xsd:complexType>

```

A.1.11 ElectionReport

The root element; for defining items pertaining to the status and format of the report and when it was generated. The optional Signature element is used for an XML digital signature, which is described in the normative reference in Clause 2. Signature must be the last element of ElectionReport.

ElectionReport includes the major elements that are not necessarily specific to an election and therefore can exist in a pre-election report: GpUnit, Party, Person, and Election. Like Election, ElectionReport “wraps” occurrences of the elements, excepting Election, in container elements for the purpose of making the instance files easier to manipulate in XML viewers and editors.

When a particular ordering of political parties is important to preserve, it is expected that the generating application will define the Party elements according to the ordering scheme in place.

Attributes:

| Attribute | Required | Type | Description |
|---------------------|----------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GeneratedDate | yes | xsd:dateTime | Identifies the date and time that the election report was generated. |
| Format | yes | ReportDetailLevel | Detail level of the report, e.g., contest summary, precinct level results, etc. |
| IsTest | no | xsd:boolean | Used to indicate whether the report is a test report. Assumed to be “no” if not present. |
| Issuer | yes | xsd:string | Identification of the report issuer. |
| IssuerAbbreviation | yes | xsd:string | An abbreviation of the report issuer such as the 2-character U.S. Census Bureau abbreviation of the state whose results are being reported, e.g., AL, TX, MN, etc. |
| Sequence | yes | xsd:integer | If this report is part of a sequence of files, its number in the sequence. Otherwise 0. |
| SequenceEnd | yes | xsd:integer | Indicates the upper bound of the sequence. |
| Status | yes | ResultsStatus | Status of the election report, e.g., test mode, unofficial, etc. |
| TestType | no | xsd:string | A description of the type of test, e.g., pre-election, logic and accuracy, etc. |
| VendorApplicationID | yes | xsd:string | An identifier of the vendor application generating the election report, e.g., X-EMS version 3.1.a. |

Table A.28— Attributes for ElectionReport

Elements:

| Element | Multiplicity | Type | Description |
|-------------|--------------|-------------|---------------------------------------------------------------------------------------------------|
| Code | 0 or more | Code | For associating a code with the report. |
| Election | 0 or more | Election | For associating elections with the report. |
| GpUnit | 0 or more | GpUnit | For associating geo-political units with the report. |
| Notes | 0 or 1 | xsd:string | For including an arbitrary message with the report. |
| Office | 0 or more | Office | For associating offices with the report. |
| OfficeGroup | 0 or more | OfficeGroup | For associating a name for a grouping of offices with the report. |
| Party | 0 or more | Party | For associating parties with the report. |
| Person | 0 or more | Person | For associating persons with the report. |
| Signature | 0 or 1 | Signature | Reference to the Signature element of the W3C digital signature schema imported into this schema. |

Table A.29— Elements for ElectionReport

Definition:

```

<xsd:complexType name="ElectionReport">
  <xsd:sequence>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Notes" type="xsd:string" minOccurs="0"/>
    <xsd:element name="GpUnitCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="GpUnit" type="GpUnit" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="PartyCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="Party" type="Party" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="PersonCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="Person" type="Person" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="OfficeCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="Office" type="Office" minOccurs="1" maxOccurs="unbounded"/>
          <xsd:element name="OfficeGroup" type="OfficeGroup" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="Election" type="Election" minOccurs="0"/>
    <xsd:element ref="ds:Signature" minOccurs="0"/>
  </xsd:sequence>
  <xsd:attribute name="Format" type="ReportDetailLevel" use="required"/>
  <xsd:attribute name="GeneratedDate" type="xsd:dateTime" use="required"/>
  <xsd:attribute name="IsTest" type="xsd:boolean"/>
  <xsd:attribute name="Issuer" type="xsd:string" use="required"/>
  <xsd:attribute name="IssuerAbbreviation" type="xsd:string" use="required"/>
  <xsd:attribute name="Sequence" type="xsd:integer" use="required"/>
  <xsd:attribute name="SequenceEnd" type="xsd:integer" use="required"/>
  <xsd:attribute name="Status" type="ResultsStatus" use="required"/>
  <xsd:attribute name="TestType" type="xsd:string"/>
  <xsd:attribute name="VendorApplicationId" type="xsd:string" use="required"/>
</xsd:complexType>

```

A.1.12 GpUnit and xsi:types ReportingDevice and ReportingUnit

For defining geo-political units such as cities, districts, jurisdictions, precincts or split precincts, for the purpose of associating contests, offices, vote counts, and other information with the geographies.

ElectionReport includes GpUnit.

There are 2 types of GpUnits:

- ReportingDevice, for associating vote counts with a specific vote-capture device (see Clause A.1.12.1)
- ReportingUnit, for associating vote counts with geo-political units such as cities, districts, counties, precincts, etc. (see Clause A.1.12.2)

GpUnit references these as xsi:types. Accordingly, the syntax for each of the types is:

```
<GpUnit xsi:type="ReportingDevice" ... />
<GpUnit xsi:type="ReportingUnit" ... />
```

Election and Contest contain a required reference to a GpUnit defined as the jurisdiction of the election, or contest respectively; Office contains a similar reference that is optional.

SummaryCounts and VoteCounts reference GpUnit to link vote or summary counts to GpUnits defined for, e.g., precincts or other types of geo-political units. GpUnit includes SummaryCounts so as to provide summary counts for the corresponding geo-political unit (again, likely a precinct or lower-level geography).

BallotStyle references GpUnit to link a ballot style to its corresponding geo-political unit (again, likely a precinct).

When including Code, if the code type is not listed in enumeration CodeType, use “Other” and include the code type (that is not listed in the enumeration) in OtherType.

Clause **Error! Reference source not found.** describes usage of GpUnit elements in greater detail. Clause **Error! Reference source not found.** describes how vote and ballot counts are associated with GpUnit elements.

Attributes:

| Attribute | Required | Type | Description |
|-----------|----------|------------|----------------------------------------|
| objectId | yes | xsd:ID | Unique identifier for this XML object. |
| Name | no | xsd:string | Name of the geo-political unit. |

Table A.30— Attributes for GpUnit

Elements:

| Element | Multiplicity | Type | Description |
|-------------------|--------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Code | 0 or more | Code | For associating a code with the GpUnit, e.g., a district’s or county’s code |
| ComposingGpUnitId | 0 or more | xsd:IDREF | Unique identifier for a GpUnit element. For creating a reference within a GpUnit to another GpUnit that composes the GpUnit or that is contained with the GpUnit. |
| SummaryCounts | 0 or more | SummaryCounts | Ballot summary counts (overvotes, undervotes, total ballots, etc.) optionally broken down by device type and ballot class. |

Table A.31— Elements for GpUnit

Definition:

```
<xsd:complexType name="GpUnit" abstract="true">
  <xsd:sequence>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="ComposingGpUnitId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="SummaryCounts" type="SummaryCounts" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

```

</xsd:sequence>
<xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
<xsd:attribute name="Name" type="xsd:string"/>
</xsd:complexType>

```

A.1.12.1 ReportingDevice (extension base GpUnit)

For reporting counts associated with a specific vote-capture device. It is an xsi:type of GpUnit and inherits GpUnit's attributes and elements (see Clause A.1.12). Its syntax is:

```
<GpUnit xsi:type="ReportingDevice" ... />
```

ReportingDevice identifies a specific vote-capture device using the SerialNumber attribute, and then includes Device to identify other characteristics of the device such as manufacturer and model.

Attributes: (NOTE—see Table A.30— Attributes for GpUnit)

| Attribute | Required | Type | Description |
|--------------|----------|------------|---------------------------------------------------------------------|
| SerialNumber | no | xsd:string | A serial number or otherwise identifier associated with the device. |

Table A.32— Attributes for ReportingDevice

Elements: (NOTE—see Table A.31— Elements for GpUnit)

| Element | Multiplicity | Type | Description |
|---------|--------------|--------|------------------------------------------------------------------------|
| Device | 0 or 1 | Device | For filtering the vote counts by device type, model, and manufacturer. |

Table A.33— Elements for ReportingDevice

Definition:

```

<xsd:complexType name="ReportingDevice">
  <xsd:complexContent>
    <xsd:extension base="GpUnit">
      <xsd:sequence>
        <xsd:element name="Device" type="Device" minOccurs="0"/>
      </xsd:sequence>
      <xsd:attribute name="SerialNumber" type="xsd:string"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

```

A.1.12.2 ReportingUnit (extension base GpUnit)

For defining a geo-political unit such as state, county, township, precinct, etc., using the ReportingUnit enumeration. It is an xsi:type of GpUnit and inherits GpUnit's attributes and elements (see Clause A.1.12). Its syntax is:

```
<GpUnit xsi:type="ReportingUnit" ... />
```

ReportingUnit optionally references Person to associate one or more authorities for the reporting unit. ReportingUnit also includes ContactInformation to provide contact addresses for the reporting unit, such as an address of a vote center.

If the reporting unit type is not listed in enumeration ReportingUnitType, use "Other" and include the reporting unit type (that is not listed in the enumeration) in OtherType.

Attributes: (NOTE—see Table A.30— Attributes for GpUnit)

| Attribute | Required | Type | Description |
|---------------------|----------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| IsElectoralDistrict | no | xsd:boolean | Boolean to indicate whether the reporting unit is an electoral district; assumed to be “no” if not present. Assumed to be “no” if not present. |
| OtherType | no | xsd:string | For use when ReportingUnitType is “Other”. |
| SubUnitsReported | no | xsd:integer | Number of associated subunits such as precincts that have completed reporting. |
| TotalSubUnits | no | xsd:integer | Total number of associated subunits such as precincts. |
| Type | yes | ReportingUnitType | Enumerated type of reporting unit, e.g., state, county, district, precinct, etc. |
| VotersParticipated | no | xsd:integer | Number of voters who have participated in the election, i.e., shown up at the polls, including those who did not cast ballots. |
| VotersRegistered | no | xsd:integer | Number of registered voters residing within the boundaries of the geo-political unit. |

Table A.34— Attributes for ReportingUnit

Elements: (NOTE—see Table A.31— Elements for GpUnit)

| Element | Multiplicity | Type | Description |
|--------------------|--------------|--------------------|---------------------------------------------------------------------------------------------------------|
| AuthorityId | 0 or more | xsd:IDREF | The ObjectId of one or more Person elements describing an authority responsible for the reporting unit. |
| ContactInformation | 0 or 1 | ContactInformation | For associating contact information with the reporting unit. |
| CountStatus | 0 or more | CountStatus | For providing various counting status on types of ballots or other items. |
| PartyRegistration | 0 or more | PartyRegistration | For associating a count of registered voters per party with the geo-political unit. |
| SpatialDimension | 0 or 1 | SpatialDimension | For describing the reporting unit’s spatial extent (a polygon that shows the related area). |

Table A.35— Elements for ReportingUnit

Definition:

```

<xsd:complexType name="ReportingUnit">
  <xsd:complexContent>
    <xsd:extension base="GpUnit">
      <xsd:sequence>
        <xsd:element name="AuthorityId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="ContactInformation" type="ContactInformation" minOccurs="0" maxOccurs="1"/>
        <xsd:element name="CountStatus" type="CountStatus" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="PartyRegistration" type="PartyRegistration" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="SpatialDimension" type="SpatialDimension" minOccurs="0"/>
      </xsd:sequence>
      <xsd:attribute name="IsElectoralDistrict" type="xsd:boolean"/>
      <xsd:attribute name="OtherType" type="xsd:string"/>
      <xsd:attribute name="SubUnitsReported" type="xsd:integer"/>
      <xsd:attribute name="TotalSubUnits" type="xsd:integer"/>
      <xsd:attribute name="Type" type="ReportingUnitType" use="required"/>
      <xsd:attribute name="VotersParticipated" type="xsd:integer"/>
      <xsd:attribute name="VotersRegistered" type="xsd:integer"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

```

A.1.13 InternationalizedText and LanguageString

For strings that can contain text in one of a number of different languages, for use with text that can be included on the ballot. The Identifier attribute can be used to assign an identifier to the text as desired.

LanguageString uses the xsd:language type such that the Language attribute must be set to a value that identifies the language. An example of usage for the string “This is content in Spanish” is as follows:

```
<InternationalizedText>
  <LanguageString Language="es">Este es el contenido en Español.</LanguageString>
</InternationalizedText>
```

Values for Language include:

- en – English
- en-US – U.S. English
- en-GB – U.K. English
- fr – French
- es – Spanish
- zh – Chinese
- ja – Japanese
- ko – Korean

Attributes for InternationalizedText:

| Attribute | Required | Type | Description |
|------------|----------|------------|---------------------------------------------------------------|
| Identifier | no | xsd:string | For assigning an identifier to the international text string. |

Table A.36— Attributes for InternationalizedText

Elements for InternationalizedText:

| Element | Multiplicity | Type | Description |
|----------------|--------------|----------------|-----------------------------------------------|
| LanguageString | 1 or more | LanguageString | A string of text, i.e., possibly non-English. |

Table A.37— Elements for InternationalizedText

Definition for InternationalizedText:

```
<xsd:complexType name="InternationalizedText">
  <xsd:sequence>
    <xsd:element name="LanguageString" type="LanguageString" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="Identifier" type="xsd:string"/>
</xsd:complexType>
```

Attributes for LanguageString:

| Attribute | Required | Type | Description |
|-----------|----------|--------------|---------------------------------------------|
| Language | yes | xsd:language | Identification of the language, e.g., “es”. |

Table A.38— Attributes for LanguageString

Elements for LanguageString: none.

Definition for LanguageString:

```
<xsd:complexType name="LanguageString">
  <xsd:simpleContent>
    <xsd:extension base="xsd:string">
      <xsd:attribute name="Language" type="xsd:language" use="required"/>
    </xsd:extension>
  </xsd:simpleContent>
</xsd:complexType>
```

```
</xsd:simpleContent>
</xsd:complexType>
```

A.1.14 Office, OfficeGroup, and Term

For defining the office associated with a contest and/or a district, and for associating a name with a grouping of offices. ElectionReport includes Office and OfficeGroup. CandidateContest and RetentionContest reference Office.

Office includes Term for defining details about the term of an office such as start/end dates and the type of term. Office includes an optional JurisdictionalScopeId reference to a GpUnit for the purpose of identifying the geographical scope of the office. For example, for an office for a state senate seat, JurisdictionalScopeId would include a reference to the GpUnit ReportingUnit defined for the district associated with that office.

OfficeGroup includes references to Office elements and a name to identify the grouping of references, e.g., “Judicial” or “Statewide”, etc. SubOfficeGroup can be used to create a nested hierarchy of groupings.

Attributes for Office:

| Attribute | Required | Type | Description |
|----------------|----------|--------------|-------------------------------------------------------------------------------------------------------------|
| ObjectId | yes | xsd:ID | Unique identifier for this XML object. |
| FilingDeadline | no | xsd:dateTime | Date and time when a candidate must have filed for the contest for the office. |
| IsPartisan | no | xsd:boolean | Boolean to indicate whether the office is partisan, e.g., “yes” or “no”. Assumed to be “no” if not present. |

Table A.39— Attributes for Office

Elements for Office:

| Element | Multiplicity | Type | Description |
|-----------------------|--------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Code | 0 or more | Code | For associating a code with the office. |
| ContactInformation | 0 or 1 | ContactInformation | For associating various contact information with the office. |
| JurisdictionalScopeId | 0 or more | xsd:IDREF | Unique identifier for a GpUnit element. For associating the office with a reporting unit that represents the geographical scope of the contest, e.g., a district, etc. |
| Name | 1 | InternationalizedText | Name of the office; can appear on the ballot. |
| OfficeHolderId | 0 or more | xsd:IDREF | Unique identifier for a Candidate element defined for the office holder. |
| Term | 0 or 1 | Term | For specifying information about the term of the office. |

Table A.40— Elements for Office

Definition for Office:

```
<xsd:complexType name="Office">
  <xsd:sequence>
    <xsd:element name="Name" type="InternationalizedText"/>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Term" type="Term" minOccurs="0"/>
    <xsd:element name="JurisdictionalScopeId" type="xsd:IDREF" minOccurs="0"/>
    <xsd:element name="OfficeHolderId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

```

    <xsd:element name="ContactInformation" type="ContactInformation" minOccurs="0" maxOccurs="1"/>
  </xsd:sequence>
  <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
  <xsd:attribute name="FilingDeadline" type="xsd:dateTime"/>
  <xsd:attribute name="IsPartisan" type="xsd:boolean"/>
</xsd:complexType>

```

Attributes for Term:

| Attribute | Required | Type | Description |
|-----------|----------|----------------|----------------------------------------------------------------|
| EndDate | yes | xsd:date | End date for the current term of the office. |
| StartDate | no | xsd:date | Start date for the current term of the office. |
| Type | no | OfficeTermType | Enumerated type of term, e.g., full term, unexpired term, etc. |

Table A.41— Attributes for Term

Elements: none.

Definition for Term:

```

<xsd:complexType name="Term">
  <xsd:attribute name="EndDate" type="xsd:date"/>
  <xsd:attribute name="StartDate" type="xsd:date"/>
  <xsd:attribute name="Type" type="OfficeTermType"/>
</xsd:complexType>

```

Attributes for OfficeGroup:

| Attribute | Required | Type | Description |
|-----------|----------|------------|------------------------------|
| Name | yes | xsd:string | Name of the office grouping. |

Table A.42— Attributes for OfficeGroup

Elements for OfficeGroup:

| Element | Multiplicity | Type | Description |
|----------------|--------------|-------------|-----------------------------------------------------------------------------------------------------|
| officeId | 1 or more | xsd:IDREF | Unique identifier for an Office element. For associating a name with a grouping of Office elements. |
| officeSubGroup | 0 or more | OfficeGroup | For defining a nested hierarchy of Office element groupings. |

Table A.43— Elements for OfficeGroup

Definition for OfficeGroup:

```

<xsd:complexType name="OfficeGroup">
  <xsd:sequence>
    <xsd:element name="OfficeId" type="xsd:IDREF" minOccurs="1" maxOccurs="unbounded"/>
    <xsd:element name="SubOfficeGroup" type="OfficeGroup" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="Name" type="xsd:string" use="required"/>
</xsd:complexType>

```

A.1.15 Party and xsi:type Coalition

Used to describe a political party that can then be referenced in other elements. ElectionReport includes Party, Candidate, PartyContest, PartyRegistration, and Person reference Party.

The Color attribute specifies a 6-digit RGB code displayable using HTML. For example, the color green is encoded as:

```
<Party color="00FF00" ... />
```

Party is also used to define Coalitions by using the Coalition xsi:type, with the following syntax:

```
<Party xsi:type="Coalition" ... />
```

See Clause A.1.15.1 for more information about defining Coalitions.

Attributes:

| Attribute | Required | Type | Description |
|--------------|----------|-----------------|----------------------------------------------------------|
| objectId | yes | xsd:ID | Unique identifier for this XML object. |
| Abbreviation | no | xsd:string | Short name for the party, e.g., "DEM". |
| Color | no | HTMLColorString | For associating an HTML RGB color coding with the party. |
| LogoUri | no | xsd:anyUri | A URI to the party's graphical logo. |

Table A.44— Attributes for Party

Elements:

| Element | Multiplicity | Type | Description |
|---------|--------------|-----------------------|--------------------------------------------------------------------------------|
| Code | 0 or more | Code | For associating a code with the party. |
| Name | 1 | InternationalizedText | Official full name of the party, e.g., "Republican"; can appear on the ballot. |

Table A.45—Elements for Party

Definition:

```
<xsd:complexType name="Party">
  <xsd:sequence>
    <xsd:element name="Name" type="InternationalizedText"/>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="objectId" type="xsd:ID" use="required"/>
  <xsd:attribute name="Abbreviation" type="xsd:string"/>
  <xsd:attribute name="Color" type="HTMLColorString"/>
  <xsd:attribute name="LogoUri" type="xsd:anyURI"/>
</xsd:complexType>
```

A.1.15.1 Coalition (extension base Party)

For defining a coalition, i.e., a collection of parties organized for the purpose of endorsing a candidates in a contest. It is an xsi:type of Party and inherits Party's attributes and elements (see Clause A.1.15). Its syntax is:

```
<Party xsi:type="Coalition" ... />
```

Coalition elements are created by defining Party elements from ElectionReport, but using the above syntax. Thus, coalition elements can be referenced via any references to Party included in other elements, e.g., Candidate or CandidateSelection. Coalition elements themselves are composed of multiple occurrences of party references with a reference to the associated contest(s).

Attributes: none. (NOTE—see Table A.44— Attributes for Party)

Elements: (NOTE—see Table A.45—Elements for Party)

| Attribute | Multiplicity | Type | Description |
|----------------------------------------------|--------------|-----------|---------------------------------------------------------------------------------------|
| ContestId | 0 or more | xsd:IDREF | Unique identifier for a Contest element. For associating contests with the coalition. |
| Party | 0 or 1 | xsd:IDREF | Unique identifier for a Party element. For associating parties with the coalition. |
| Note: see also Table A.45—Elements for Party | | | |

Table A.46— Elements for Coalition

Definition:

```

<xsd:complexType name="Coalition">
  <xsd:complexContent>
    <xsd:extension base="Party">
      <xsd:sequence>
        <xsd:element name="ContestId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="PartyId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

```

A.1.16 PartyRegistration

For tracking the number of registered voters per party per geo-political unit, i.e., for reporting on the number of registered voters of a particular party in a district or other type of reporting unit. Referenced by ReportingUnit.

Attributes:

| Attribute | Required | Type | Description |
|-----------|----------|-------------|-------------------------------------------------------|
| Count | yes | xsd:integer | A count for tracking the number of registered voters. |

Table A.47— Attributes for PartyRegistration

Elements:

| Element | Multiplicity | Type | Description |
|---------|--------------|-----------|------------------------------------------------------------------------------------------|
| PartyId | 1 | xsd:IDREF | Unique identifier for a Party element. For associating a political party with the count. |

Table A.48— Elements for PartyRegistration

Definition:

```

<xsd:complexType name="PartyRegistration">
  <xsd:sequence>
    <xsd:element name="PartyId" type="xsd:IDREF"/>
  </xsd:sequence>
  <xsd:attribute name="Count" type="xsd:integer" use="required"/>
</xsd:complexType>

```

A.1.17 Person

For defining information about a person; the person may be a candidate, election official, authority for a reporting unit, etc. ElectionReport includes Person. Candidate and GpUnit reference Person. Person optionally includes ContactInformation to associating contact information.

Multiple occurrences of the MiddleName element can be used as needed, e.g., for names such as “John Andrew Winston Smith”, as follows:


```

<Person ObjectID="P12321">
  <FirstName>John</FirstName>
  <MiddleName>Andrew</MiddleName>
  <MiddleName>Winston</MiddleName>
  <LastName>Smith</LastName>
</Person>

```

Attributes:

| Attribute | Required | Type | Description |
|-------------|----------|----------|----------------------------------------|
| ObjectID | yes | xsd:ID | Unique identifier for this XML object. |
| DateOfBirth | no | xsd:date | Person's date of birth. |

Table A.49— Attributes for Person

Elements:

| Element | Multiplicity | Type | Description |
|--------------------|--------------|-----------------------|-------------------------------------------------------------------------------------------|
| ContactInformation | 0 or more | Contact | For associating contact information with the person. |
| FirstName | 0 or 1 | xsd:string | Person's first (given) name. |
| FullName | 0 or 1 | InternationalizedText | Person's full name. |
| Gender | 0 or 1 | xsd:string | Person's gender. |
| LastName | 0 or 1 | xsd:string | Person's last (family) name. |
| MiddleName | 0 or more | xsd:string | Person's middle name. |
| Nickname | 0 or 1 | xsd:string | Nickname associated with the person. |
| PartyId | 0 or 1 | xsd:IDREF | Unique identifier for a Party element. For associating a political party with the person. |
| Prefix | 0 or 1 | xsd:string | A prefix associated with the person, e.g., Mr. |
| Profession | 0 or 1 | InternationalizedText | Person's profession. |
| Suffix | 0 or 1 | xsd:string | A suffix associated with the person, e.g., Jr. |
| Title | 0 or 1 | InternationalizedText | A title associated with the person. |

Table A.50— Elements for Person

Definition:

```

<xsd:complexType name="Person">
  <xsd:sequence>
    <xsd:element name="ContactInformation" type="ContactInformation" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="FirstName" type="xsd:string" minOccurs="0"/>
    <xsd:element name="FullName" type="InternationalizedText" minOccurs="0"/>
    <xsd:element name="Gender" type="xsd:string" minOccurs="0"/>
    <xsd:element name="LastName" type="xsd:string" minOccurs="0"/>
    <xsd:element name="MiddleName" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Nickname" type="xsd:string" minOccurs="0"/>
    <xsd:element name="PartyId" type="xsd:IDREF" minOccurs="0"/>
    <xsd:element name="Prefix" type="xsd:string" minOccurs="0"/>
    <xsd:element name="Profession" type="InternationalizedText" minOccurs="0"/>
    <xsd:element name="Suffix" type="xsd:string" minOccurs="0"/>
    <xsd:element name="Title" type="InternationalizedText" minOccurs="0"/>
  </xsd:sequence>
  <xsd:attribute name="ObjectID" type="xsd:ID" use="required"/>
  <xsd:attribute name="DateOfBirth" type="xsd:date"/>
</xsd:complexType>

```

A.1.18 Schedule and Hours

For defining a schedule associated with a particular election office or location. ContactInformation includes Schedule.

Hours is used to specify a specific day and hours on that day, including the time zone. Multiple occurrences of Hours can be used if the schedule includes a range of days and hours, for example, for specific hours on a Wednesday and Thursday:

```
<Schedule StartDate="2015-05-15">
  <Hours Day="Friday" StartTime="09:00:00-05:00" EndTime="17:00:00-05:00"/>
  <Hours Day="Saturday" StartTime="09:00:00-05:00" EndTime="21:00:00-05:00"/>
</Schedule>
```

Attributes for Schedule:

| Attribute | Required | Type | Description |
|---------------------|----------|-------------|------------------------------------|
| EndDate | no | xsd:date | For the ending date. |
| IsOnlyByAppointment | no | xsd:boolean | Assumed to be "no" if not present. |
| IsOrByAppointment | no | xsd:boolean | Assumed to be "no" if not present. |
| IsSubjectToChange | no | xsd:boolean | Assumed to be "no" if not present. |
| StartDate | no | xsd:date | For the starting date. |

Table A.51— Attributes for Schedule

Elements for Schedule:

| Element | Multiplicity | Type | Description |
|---------|--------------|-------|-------------------------------------------------|
| Hours | 0 or more | Hours | For specifying a range of hours for a schedule. |

Table A.52— Elements for Schedule

Definition for Schedule:

```
<xsd:complexType name="Schedule">
  <xsd:sequence>
    <xsd:element name="Hours" type="Hours" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="EndDate" type="xsd:date"/>
  <xsd:attribute name="IsOnlyByAppointment" type="xsd:boolean"/>
  <xsd:attribute name="IsOrByAppointment" type="xsd:boolean"/>
  <xsd:attribute name="IsSubjectToChange" type="xsd:boolean"/>
  <xsd:attribute name="StartDate" type="xsd:date"/>
</xsd:complexType>
```

Attributes for Hours:

| Attribute | Required | Type | Description |
|-----------|----------|--------------|-----------------------------|
| Day | no | DayType | Day of week or weekend. |
| EndTime | yes | TimewithZone | End time of the schedule. |
| StartTime | yes | TimewithZone | Start time of the schedule. |

Table A.53—Attributes for Hours

Elements: none.

Definition for Hours:

```
<xsd:complexType name="Hours">
  <xsd:attribute name="Day" type="DayType"/>
  <xsd:attribute name="EndTime" type="TimewithZone" use="required"/>
  <xsd:attribute name="StartTime" type="TimewithZone" use="required"/>
</xsd:complexType>
```

A.1.19 SpatialDimension and SpatialExtent

For defining a GpUnit's spatial layout, e.g., a map or a spatial extent (a polygon that shows the related area) for various purposes, including to visualize election results, to understand the composition of districts, or to determine whether GpUnits are properly related. ReportingUnit includes SpatialDimension.

SpatialDimension includes SpatialExtent for defining the GpUnit's spatial extent data and the format used for the spatial extent.

Attributes for SpatialDimension:

| Attribute | Required | Type | Description |
|-----------|----------|--------|-----------------------------------------|
| MapUri | no | anyURI | Typically a URL to a map of the GpUnit. |

Table A.54— Attributes for SpatialDimension

Elements for SpatialDimension:

| Element | Multiplicity | Type | Description |
|---------------|--------------|---------------|----------------------------------------------------------|
| SpatialExtent | 0 or more | SpatialExtent | For associating the GpUnit's spatial extent information. |

Table A.55— Elements for SpatialDimension

Definition for SpatialDimension:

```
<xsd:complexType name="SpatialDimension">
  <xsd:sequence>
    <xsd:element name="SpatialExtent" type="SpatialExtent" minOccurs="0"/>
  </xsd:sequence>
  <xsd:attribute name="MapUri" type="xsd:anyURI"/>
</xsd:complexType>
```

Attributes for SpatialExtent:

| Attribute | Required | Type | Description |
|-----------|----------|------------------|---------------------------------------------------------------------|
| Format | yes | GeoSpatialFormat | Enumerated type for the format used, e.g., GML, KML, WKT, SHP, etc. |

Table A.56— Attributes for SpatialExtent

Elements for SpatialExtent:

| Element | Occurs | Type | Description |
|-------------|--------|------------|-------------------------------------------------------|
| Coordinates | 1 | xsd:string | The data coordinates constituting the spatial extent. |

Table A.57— Elements for SpatialExtent

Definition for SpatialExtent:

```
<xsd:complexType name="SpatialExtent">
  <xsd:sequence>
    <xsd:element name="Coordinates" type="xsd:string"/>
  </xsd:sequence>
  <xsd:attribute name="Format" type="GeoSpatialFormat" use="required"/>
</xsd:complexType>
```

A.1.20 SummaryCounts (extension base Counts)

For reporting on contest-wide or geo-political unit-wide summary counts. Includes Counts as an extension base and thus inherits attributes and elements from Counts (see Clause A.1.8).

Contest includes SummaryCounts for providing a geographical scope-wide summary of miscellaneous counts associated with a contest, including total number of ballots cast containing the contest, total number of overvotes, undervotes, and write-ins. SummaryCounts can optionally reference GpUnits defined for lower level reporting units, e.g., precincts, so as to associate summary counts with each precinct or other lower-level reporting units within the scope of the contest.

GpUnit includes SummaryCounts for the purpose of providing summary counts specific to that GpUnit, e.g., a GpUnit defined for a district can include SummaryCounts for this purpose. SummaryCounts, in this case, would not reference other GpUnits.

In extension base Counts, if the type of count item is not listed in enumeration CountItemType, use “Other” and include the type (that is not listed in the enumeration) in OtherType.

Attributes: (NOTE—see also Table A.23— Attributes for Counts)

| Attribute | Required | Type | Description |
|--------------------|----------|-------------|----------------------------------------------------------------------------------------|
| BallotsCast | no | xsd:integer | Number of ballots cast, either in a contest or associated with a geo-political Unit. |
| BallotsOutstanding | no | xsd:integer | Number of ballots not yet counted. |
| BallotsRejected | no | xsd:integer | Number of ballots rejected. |
| Overvotes | no | xsd:integer | Number of overvotes, either in a contest or associated with a geo-political unit. |
| Undervotes | no | xsd:integer | Number of undervotes, either in a contest or associated with a geo-political unit. |
| WriteIns | no | xsd:integer | Number of write-ins cast, either in a contest or associated with a geo-political unit. |

Table A.58— Attributes for SummaryCounts

Elements: none. (NOTE— see Table A.24— Elements for Counts)

Definition:

```
<xsd:complexType name="SummaryCounts">
  <xsd:complexContent>
    <xsd:extension base="Counts">
      <xsd:attribute name="BallotsCast" type="xsd:integer"/>
      <xsd:attribute name="BallotsOutstanding" type="xsd:integer"/>
      <xsd:attribute name="BallotsRejected" type="xsd:integer"/>
      <xsd:attribute name="Overvotes" type="xsd:integer"/>
      <xsd:attribute name="Undervotes" type="xsd:integer"/>
      <xsd:attribute name="WriteIns" type="xsd:integer"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

A.1.21 VoteCounts (extension base Counts)

For reporting on vote counts for ballot selections in a contest. BallotSelection includes VoteCounts.

VoteCounts includes Counts as an extension base and thus inherits attributes and elements from Counts (see Clause A.1.8). In extension base Counts, if the type of count item is not listed in enumeration CountItemType, use “Other” and include the type (that is not listed in the enumeration) in OtherType.

Attributes: (NOTE—see Table A.23— Attributes for Counts)

| Attribute | Required | Type | Description |
|-----------|----------|-----------|-----------------------------------------------------------------------------------|
| Count | yes | xsd:float | Count of contest votes cast; can include a fractional component in special cases. |

Table A.59—Attributes for VoteCounts

Elements: none. (NOTE—see Table A.24— Elements for Counts)

Definition:

```
<xsd:complexType name="VoteCounts">
  <xsd:complexContent>
    <xsd:extension base="Counts">
      <xsd:attribute name="Count" type="xsd:float" use="required"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

A.2 Enumerations

A.2.1 BallotMeasureType

Enumeration for types of ballot measures in BallotMeasureContest.

| Name | Description |
|---------------|---------------------------------------------------------------------------|
| BallotMeasure | For a standard “yes” or “no” question on the ballot. |
| Initiative | For an initiative. |
| Referendum | For a referendum. |
| Retention | For a judicial retention-style contest |
| other | Used when the type of ballot measure is not included in this enumeration. |

Table A.60—Values for BallotMeasureType

Definition:

```
<xsd:simpleType name="BallotMeasureType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="BallotMeasure"/>
    <xsd:enumeration value="Initiative"/>
    <xsd:enumeration value="Referendum"/>
    <xsd:enumeration value="Retention"/>
    <xsd:enumeration value="Other"/>
  </xsd:restriction>
</xsd:simpleType>
```

A.2.2 CandidatePostElectionStatus

Enumeration for various post-election statuses applicable to a candidate in Candidate.

| Name | Description |
|------------------|--------------------------------------------------------------------------------|
| AdvancedToRunoff | For candidates who have advanced to a runoff. |
| ProjectedWinner | For a projected contest winner. |
| winner | For the official contest winner or one of N contest winners for N-of-M voting. |
| withdrawn | For candidates who have withdrawn from the contest. |
| writeIn | For when the candidate is a write-in. |

Table A.61— Values for CandidatePostElectionStatus

Definition:

```
<xsd:simpleType name="CandidatePostElectionStatus">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="AdvancedToRunoff"/>
    <xsd:enumeration value="ProjectedWinner"/>
    <xsd:enumeration value="winner"/>
    <xsd:enumeration value="withdrawn"/>
  </xsd:restriction>
</xsd:simpleType>
```

A.2.3 CandidatePreElectionStatus

Enumeration for various pre-election statuses applicable to a candidate in Candidate.

| Name | Description |
|-----------|-----------------------------------------------------------------------------------------------|
| Filed | For candidates who have filed with the election authority but not necessarily qualified. |
| Qualified | For candidates who are qualified by the election authority to be on the ballot for a contest. |
| withdrawn | For candidates who have withdrawn from the contest. |
| writeIn | For when the candidate is a write-in. |

Table A.62— Values for CandidatePreElectionStatus

Definition:

```
<xsd:simpleType name="CandidatePreElectionStatus">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="Filed"/>
    <xsd:enumeration value="Qualified"/>
    <xsd:enumeration value="withdrawn"/>
    <xsd:enumeration value="writeIn"/>
  </xsd:restriction>
</xsd:simpleType>
```

A.2.4 CodeType

Enumeration for election data-related codes in Code.

| Name | Description |
|---------------|-------------------------------------------------------------------------|
| Fips | For FIPS codes. |
| LocalLevel | For a code that is specific to a county or other similar locality. |
| NationalLevel | For a code that is used at the national level other than FIPs or OcdId. |
| oCdId | For Open Civic Data identifiers. |
| StateLevel | For a code that is specific to a state. |
| other | Used when the type of code is not included in this enumeration. |

Table A.63—Values for CodeType

Definition:

```

<xsd:simpleType name="CodeType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="Fips"/>
    <xsd:enumeration value="LocalLevel"/>
    <xsd:enumeration value="NationalLevel"/>
    <xsd:enumeration value="OcdId"/>
    <xsd:enumeration value="StateLevel"/>
    <xsd:enumeration value="Other"/>
  </xsd:restriction>
</xsd:simpleType>

```

A.2.5 CountItemStatus

Enumeration for various counting-related statuses for types of ballots or write-ins in CountStatus.

| Name | Description |
|--------------|-------------------------------------------------------|
| Completed | For counts that are complete. |
| InProcess | For counts that are in process |
| NotProcessed | When the counting has not started or is not underway. |
| Unknown | When the status of the counting is unknown. |

Table A.64—Values for CountItemStatus

Definition:

```

<xsd:simpleType name="CountItemStatus">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="Completed"/>
    <xsd:enumeration value="InProcess"/>
    <xsd:enumeration value="NotProcessed"/>
    <xsd:enumeration value="Unknown"/>
  </xsd:restriction>
</xsd:simpleType>

```

A.2.6 CountItemType

Enumeration for the items that are counted during the course of an election and for which the status of the counts are of interest. The items consist of types of ballots and write-ins.

| Name | Description |
|------------------|-----------------------------------------------------------------------------------------------|
| Absentee | For any/all types of absentee, generally when absentee is not broken out into specific types. |
| AbsenteeFwab | A type of absentee; for Federal Write-in Absentee Ballots. |
| AbsenteeInPerson | A type of absentee; for absentee ballots cast in-person, e.g., at a county office. |
| AbsenteeMail | A type of absentee; for postal mail absentee ballots. |
| Early | For ballots cast during early voting periods. |
| ElectionDay | For ballots cast on election day. |
| Provisional | For challenged ballots. |
| Total | For the total of all ballot types. |
| Uocava | For ballots from UOCAVA voters. |
| WriteIn | For write-ins on ballots. |
| Other | Used when the item is not listed in this enumeration. |

Table A.65— Values for CountItemType

Definition:

```

<xsd:simpleType name="CountItemType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="Absentee"/>
    <xsd:enumeration value="AbsenteeFwab"/>
  </xsd:restriction>
</xsd:simpleType>

```

```

<xsd:enumeration value="AbsenteeInPerson"/>
<xsd:enumeration value="AbsenteeMail"/>
<xsd:enumeration value="Early"/>
<xsd:enumeration value="ElectionDay"/>
<xsd:enumeration value="Other"/>
<xsd:enumeration value="Provisional"/>
<xsd:enumeration value="Total"/>
<xsd:enumeration value="Uocava"/>
<xsd:enumeration value="WriteIn"/>
</xsd:restriction>
</xsd:simpleType>

```

A.2.7 DayType

Enumeration for the day(s) in a schedule in Schedule.

| Name | Description |
|-----------|------------------------------------|
| Sunday | |
| Monday | |
| Tuesday | |
| Wednesday | |
| Thursday | |
| Friday | |
| Saturday | |
| weekday | Used for any day of the week. |
| weekend | Used for both Saturday and Sunday. |
| All | Used for all days of the week. |

Table A.66— Values for DayType

Definition:

```

<xsd:simpleType name="DayType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="Sunday"/>
    <xsd:enumeration value="Monday"/>
    <xsd:enumeration value="Tuesday"/>
    <xsd:enumeration value="Wednesday"/>
    <xsd:enumeration value="Thursday"/>
    <xsd:enumeration value="Friday"/>
    <xsd:enumeration value="Saturday"/>
    <xsd:enumeration value="weekday"/>
    <xsd:enumeration value="weekend"/>
    <xsd:enumeration value="All"/>
  </xsd:restriction>
</xsd:simpleType>

```

A.2.8 DeviceType

Enumeration for the type of device in Device.

| Name | Description |
|----------------|-------------------------------------------------------------------------------------------------------------------------------|
| Electronic | For DRE (Direct Record Electronic) and touchscreen devices such as tablets. |
| Lever | For lever machines. |
| ManualCount | For hand-counted paper ballots. |
| MixedSystems | For devices, e.g., that print voter choices on an optical scan ballot (hybrid of a DRE and an optical scan system) |
| OpscanCentral | For an optical scanner used at a central office with no opportunity for voter correction of mistakes. |
| OpscanPrecinct | For an optical scanner used at a precinct or other location where voter correction of mistakes such as overvotes is possible. |
| PunchCard | For punch card devices. |
| Unknown | Used when the type of device is unknown. |
| Other | Used when the device type is not listed in this enumeration. |

Table A.67— Values for DeviceType

Definition:

```

<xsd:simpleType name="DeviceType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="Electronic"/>
    <xsd:enumeration value="Lever"/>
    <xsd:enumeration value="ManualCount"/>
    <xsd:enumeration value="MixedSystems"/>
    <xsd:enumeration value="OpscanCentral"/>
    <xsd:enumeration value="OpscanPrecinct"/>
    <xsd:enumeration value="PunchCard"/>
    <xsd:enumeration value="Unknown"/>
    <xsd:enumeration value="Other"/>
  </xsd:restriction>
</xsd:simpleType>

```

A.2.9 ElectionType

Enumeration for the type of election in ElectionReport.

| Name | Description |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| General | For the election held typically on the national day for elections (e.g., the Tuesday after the 1 st Monday in November). |
| PartisanPrimaryClosed | For a primary election that is for a specific party where voter eligibility is based on registration. |
| PartisanPrimaryOpen | For a primary election that is for a specific party where voter declares desired party or chooses in private. |
| Primary | For a primary election, type not specified such as nonpartisan. |
| Runoff | For an election to decide a prior contest that ended with no candidate receiving a majority of the votes. |
| Special | For an election held out of sequence for special circumstances, e.g., to fill a vacated office. |
| Other | Used when the election type is not listed in this enumeration. |

Table A.68— Values for ElectionType

Definition:

```

<xsd:simpleType name="ElectionType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="General"/>
    <xsd:enumeration value="PartisanPrimaryClosed"/>
    <xsd:enumeration value="PartisanPrimaryOpen"/>
    <xsd:enumeration value="Primary"/>
    <xsd:enumeration value="Runoff"/>
    <xsd:enumeration value="Special"/>
  </xsd:restriction>
</xsd:simpleType>

```

```

        <xsd:enumeration value="Other"/>
    </xsd:restriction>
</xsd:simpleType>

```

A.2.10 GeoSpatialFormat

Enumeration for geospatial vector data formats used in geographic information system (GIS) software, used in SpatialExtent.

| Name | Description |
|---------|-------------------------------------------------|
| GeoJson | For GeoJSON open standard format. |
| Gml | For Geography Markup Language format. |
| Kml | For Keyhole Markup Language format. |
| Shp | For the shape file format associated with ESRI. |
| wkt | For Well-known Text format. |

Table A.69— Values for GeoSpatialFormat

Definition:

```

<xsd:simpleType name="GeoSpatialFormat">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="Geojson"/>
    <xsd:enumeration value="Gml"/>
    <xsd:enumeration value="Kml"/>
    <xsd:enumeration value="Shp"/>
    <xsd:enumeration value="wkt"/>
  </xsd:restriction>
</xsd:simpleType>

```

A.2.11 OfficeTermType

Enumeration for the office term type in Office.

| Name | Description |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FullTerm | When the officeholder's term began at the beginning of the full term of the office, e.g., 6 years for U.S. Senate. |
| UnexpiredTerm | When the officeholder's term began at some date after the beginning of the full term of the office, generally because the previous officeholder vacated the office before the fullterm expired. |

Table A.70— Values for OfficeTermType

Definition:

```

<xsd:simpleType name="OfficeTermType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="FullTerm"/>
    <xsd:enumeration value="UnexpiredTerm"/>
  </xsd:restriction>
</xsd:simpleType>

```

A.2.12 ReportDetailLevel

Enumeration for the detail level of the election results report in Election.

| Name | Description |
|----------------|-------------------------------------------------------------------------------|
| PrecinctLevel | For reports that contain counts from precincts in the reporting jurisdiction. |
| SummaryContest | For reports that contain only aggregated counts. |

Table A.71— Values for ReportDetailLevel

Definition:

```
<xsd:simpleType name="ReportDetailLevel">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="PrecinctLevel"/>
    <xsd:enumeration value="SummaryContest"/>
  </xsd:restriction>
</xsd:simpleType>
```

A.2.13 ReportingUnitType

Enumeration for the type of geo-political unit in ReportingUnit.

| Name | Description |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BallotBatch | Used for reporting batches of ballots that may cross precinct boundaries. |
| City | Used for a city that reports results and/or for a district that encompasses the city. |
| CityCouncil | Used for city council districts. |
| CombinedPrecinct | Used for one or more precincts that have been combined for the purposes of reporting. Used for “Ward” if “Ward” is used interchangeably with “CombinedPrecinct”. |
| Congressional | Used for U.S. Congressional districts. |
| County | Used also for “Parish”, and/or used for a district that encompasses the county (or parish). |
| CountyCouncil | Used for county council districts. |
| DropBox | |
| Judicial | Used for judicial districts. |
| Municipality | Used as applicable for various units such as towns, townships, villages that report votes. |
| National | Used for a reporting unit at the national level. |
| PollingPlace | Used for a polling place. |
| Precinct | Used also for “Ward” or “District” when these terms are used to mean the same thing as “Precinct”. |
| School | Used for a school district. |
| Special | Used for a special district. |
| Split precinct | Used for splits of precincts. |
| State | Used for a state and/or for a district that encompasses the state. |
| StateHouse | Used for a state house or assembly district. |
| StateSenate | Used for a state senate district. |
| Town | Used in some New England states. |
| Township | Used in some mid-western states. |
| Utility | Used for a utility district. |
| Village | Used for villages that report votes. |
| VoteCenter | Used for a vote center. |
| Ward | Used for combinations or groupings of precincts or other units – use “Precinct” or “CombinedPrecinct” if this term is being used interchangeably. |
| Water | Used for a water district. |
| Other | Used for other types of reporting units not included in this enumeration. |

Table A.72— Values for ReportingUnitType

Definition:

```

<xsd:simpleType name="ReportingUnitType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="BallotBatch"/>
    <xsd:enumeration value="City"/>
    <xsd:enumeration value="CityCouncil"/>
    <xsd:enumeration value="CombinedPrecinct"/>
    <xsd:enumeration value="Congressional"/>
    <xsd:enumeration value="County"/>
    <xsd:enumeration value="CountyCouncil"/>
    <xsd:enumeration value="DropBox"/>
    <xsd:enumeration value="Judicial"/>
    <xsd:enumeration value="Municipality"/>
    <xsd:enumeration value="National"/>
    <xsd:enumeration value="PollingPlace"/>
    <xsd:enumeration value="Precinct"/>
    <xsd:enumeration value="School"/>
    <xsd:enumeration value="Special"/>
    <xsd:enumeration value="SplitPrecinct"/>
    <xsd:enumeration value="State"/>
    <xsd:enumeration value="StateHouse"/>
    <xsd:enumeration value="StateSenate"/>
    <xsd:enumeration value="Town"/>
    <xsd:enumeration value="Township"/>
    <xsd:enumeration value="Utility"/>
    <xsd:enumeration value="Village"/>
    <xsd:enumeration value="VoteCenter"/>
    <xsd:enumeration value="Ward"/>
    <xsd:enumeration value="Water"/>
    <xsd:enumeration value="Other"/>
  </xsd:restriction>
</xsd:simpleType>

```

A.2.14 ResultsStatus

Enumeration for the status of the election results in ElectionReport.

| Name | Description |
|--------------------|------------------------------------------------------------------------------------------|
| Certified | For results that have been certified by the election authority. |
| Correction | For results that are a correction to an earlier report. |
| PreElection | For a pre-election data. |
| Recount | For results that are a recount of an earlier election. |
| UnofficialComplete | For results that are unofficial and complete, e.g., the complete election night results. |
| UnofficialPartial | For results that are unofficial and partial, e.g., partial election night results. |

Table A.73— Values for ResultsStatus

Definition:

```

<xsd:simpleType name="ResultsStatus">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="Certified"/>
    <xsd:enumeration value="Correction"/>
    <xsd:enumeration value="PreElection"/>
    <xsd:enumeration value="Recount"/>
    <xsd:enumeration value="UnofficialComplete"/>
    <xsd:enumeration value="UnofficialPartial"/>
  </xsd:restriction>
</xsd:simpleType>

```

A.2.15 VoteVariationType

Enumeration for contest algorithm or rules in Contest. See Clause 3 for definitions.

| Name | Description |
|---------------|------------------------------------------------------------------------|
| 1ofM | For 1 of M voting. |
| Approval | For approval voting. |
| Borda | For the Borda count voting. |
| Cumulative | For cumulative voting. |
| Majority | For majority voting. |
| Measure | For a ballot measure. |
| NofM | For N of M voting. |
| Plurality | For plurality voting. |
| Range | For range voting. |
| Rcv | For ranked choice voting. |
| SuperMajority | For super majority voting. |
| other | Used when the vote variation type is not included in this enumeration. |

Table A.74— Values for VoteVariationType

Definition:

```
<xsd:simpleType name="VoteVariationType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="1ofM"/>
    <xsd:enumeration value="Approval"/>
    <xsd:enumeration value="Borda"/>
    <xsd:enumeration value="Cumulative"/>
    <xsd:enumeration value="Majority"/>
    <xsd:enumeration value="Measure"/>
    <xsd:enumeration value="NofM"/>
    <xsd:enumeration value="Other"/>
    <xsd:enumeration value="Plurality"/>
    <xsd:enumeration value="Proportional"/>
    <xsd:enumeration value="Range"/>
    <xsd:enumeration value="Rcv"/>
    <xsd:enumeration value="SuperMajority"/>
  </xsd:restriction>
</xsd:simpleType>
```

A.3 Primitives

A.3.1 HTMLColorString

For a string containing a 6-digit Red-Green-Blue (RGB) code that can be displayed using HTML, used in Party to associate a web-displayable color with the party. The RGB code is specified in hexadecimal, such that the RGB code for the color green is “00FF00” (“#00” + “#FF” + “#00”).

Definition:

```
<xsd:simpleType name="HtmlColorString">
  <xsd:restriction base="xsd:string">
    <xsd:pattern value="[0-9a-f]{6}"/>
  </xsd:restriction>
</xsd:simpleType>
```

A.3.2 Primitive TimeWithZone

For defining a time pattern that requires using a time zone, used in Hours for defining a schedule.

Hh:mm:ss+05

Definition:

```

<xsd:simpleType name="TimewithZone">
  <xsd:restriction base="xsd:time">
    <xsd:pattern value="((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-9]|(24:00:00))(Z|[-+]?((0[0-9]|1[0-
3]):[0-5][0-9]|14:00)))/>
  </xsd:restriction>
</xsd:simpleType>

```

A.4 Complete schema listing

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns="http://vote.nist.gov/election_results_reporting.xsd"
xmlns:ds="http://www.w3.org/2000/09/xmldsig#" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://vote.nist.gov/election_results_reporting.xsd" elementFormDefault="qualified"
version="1.0">
  <!-- ===== Imports ===== -->
  <xsd:import namespace="http://www.w3.org/2000/09/xmldsig#"
schemaLocation="http://www.w3.org/2000/09/xmldsig#"/>
  <!-- ===== Roots ===== -->
  <xsd:element name="ElectionReport" type="ElectionReport"/>
  <!-- ===== Primitives ===== -->
  <xsd:simpleType name="HtmlColorString">
    <xsd:restriction base="xsd:string">
      <xsd:pattern value="[0-9a-f]{6}"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="TimewithZone">
    <xsd:restriction base="xsd:time">
      <xsd:pattern value="((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-9]|(24:00:00))(Z|[-+](C([0-9]|1[0-
3]):[0-5][0-9]|14:00)))/>
    </xsd:restriction>
  </xsd:simpleType>
  <!-- ===== Enumerations ===== -->
  <xsd:simpleType name="BallotMeasureType">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="BallotMeasure"/>
      <xsd:enumeration value="Initiative"/>
      <xsd:enumeration value="Referendum"/>
      <xsd:enumeration value="Retention"/>
      <xsd:enumeration value="Other"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="CandidatePostElectionStatus">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="AdvancedToRunoff"/>
      <xsd:enumeration value="ProjectedWinner"/>
      <xsd:enumeration value="Winner"/>
      <xsd:enumeration value="Withdrawn"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="CandidatePreElectionStatus">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="Filed"/>
      <xsd:enumeration value="Qualified"/>
      <xsd:enumeration value="Withdrawn"/>
      <xsd:enumeration value="WriteIn"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="CodeType">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="Fips"/>
      <xsd:enumeration value="LocalLevel"/>
      <xsd:enumeration value="NationalLevel"/>
      <xsd:enumeration value="OcdId"/>
      <xsd:enumeration value="StateLevel"/>
      <xsd:enumeration value="Other"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="CountItemStatus">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="Completed"/>
      <xsd:enumeration value="InProgress"/>
      <xsd:enumeration value="NotProcessed"/>
      <xsd:enumeration value="Unknown"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="CountItemType">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="Absentee"/>
      <xsd:enumeration value="AbsenteeFwab"/>
      <xsd:enumeration value="AbsenteeInPerson"/>
      <xsd:enumeration value="AbsenteeMail"/>
      <xsd:enumeration value="Early"/>
      <xsd:enumeration value="ElectionDay"/>
      <xsd:enumeration value="Provisional"/>
      <xsd:enumeration value="Total"/>
      <xsd:enumeration value="Uocava"/>
      <xsd:enumeration value="WriteIn"/>
      <xsd:enumeration value="Other"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="DayType">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="Sunday"/>
      <xsd:enumeration value="Monday"/>
      <xsd:enumeration value="Tuesday"/>
      <xsd:enumeration value="Wednesday"/>
      <xsd:enumeration value="Thursday"/>
    </xsd:restriction>
  </xsd:simpleType>
```

```

        <xsd:enumeration value="Friday"/>
        <xsd:enumeration value="Saturday"/>
        <xsd:enumeration value="weekday"/>
        <xsd:enumeration value="weekend"/>
        <xsd:enumeration value="All"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="DeviceType">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="Electronic"/>
        <xsd:enumeration value="Lever"/>
        <xsd:enumeration value="ManualCount"/>
        <xsd:enumeration value="MixedSystems"/>
        <xsd:enumeration value="OpScanCentral"/>
        <xsd:enumeration value="OpScanPrecinct"/>
        <xsd:enumeration value="PunchCard"/>
        <xsd:enumeration value="Unknown"/>
        <xsd:enumeration value="Other"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="ElectionType">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="General"/>
        <xsd:enumeration value="PartisanPrimaryClosed"/>
        <xsd:enumeration value="PartisanPrimaryOpen"/>
        <xsd:enumeration value="Primary"/>
        <xsd:enumeration value="Runoff"/>
        <xsd:enumeration value="Special"/>
        <xsd:enumeration value="Other"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="GeoSpatialFormat">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="GeoJson"/>
        <xsd:enumeration value="Gml"/>
        <xsd:enumeration value="Kml"/>
        <xsd:enumeration value="Shp"/>
        <xsd:enumeration value="wkt"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="OfficeTermType">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="FullTerm"/>
        <xsd:enumeration value="UnexpiredTerm"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="ReportDetailLevel">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="PrecinctLevel"/>
        <xsd:enumeration value="SummaryContest"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="ReportingUnitType">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="BallotBatch"/>
        <xsd:enumeration value="City"/>
        <xsd:enumeration value="CityCouncil"/>
        <xsd:enumeration value="CombinedPrecinct"/>
        <xsd:enumeration value="Congressional"/>
        <xsd:enumeration value="County"/>
        <xsd:enumeration value="CountyCouncil"/>
        <xsd:enumeration value="DropBox"/>
        <xsd:enumeration value="Judicial"/>
        <xsd:enumeration value="Municipality"/>
        <xsd:enumeration value="National"/>
        <xsd:enumeration value="PollingPlace"/>
        <xsd:enumeration value="Precinct"/>
        <xsd:enumeration value="School"/>
        <xsd:enumeration value="Special"/>
        <xsd:enumeration value="SplitPrecinct"/>
        <xsd:enumeration value="State"/>
        <xsd:enumeration value="StateHouse"/>
        <xsd:enumeration value="StateSenate"/>
        <xsd:enumeration value="Town"/>
        <xsd:enumeration value="Township"/>
        <xsd:enumeration value="Utility"/>
        <xsd:enumeration value="Village"/>
        <xsd:enumeration value="VoteCenter"/>
        <xsd:enumeration value="Ward"/>
        <xsd:enumeration value="Water"/>
        <xsd:enumeration value="Other"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="ResultsStatus">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="Certified"/>
        <xsd:enumeration value="Correction"/>
        <xsd:enumeration value="PreElection"/>
        <xsd:enumeration value="Recount"/>
        <xsd:enumeration value="UnofficialComplete"/>
        <xsd:enumeration value="UnofficialPartial"/>
    </xsd:restriction>

```



```

</xsd:simpleType>
<xsd:simpleType name="VoteVariationType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="lofm"/>
    <xsd:enumeration value="Approval"/>
    <xsd:enumeration value="Borda"/>
    <xsd:enumeration value="Cumulative"/>
    <xsd:enumeration value="Majority"/>
    <xsd:enumeration value="Measure"/>
    <xsd:enumeration value="Nofm"/>
    <xsd:enumeration value="Plurality"/>
    <xsd:enumeration value="Proportional"/>
    <xsd:enumeration value="Range"/>
    <xsd:enumeration value="Rcv"/>
    <xsd:enumeration value="SuperMajority"/>
    <xsd:enumeration value="Other"/>
  </xsd:restriction>
</xsd:simpleType>
<!-- ===== Interfaces Defined ===== -->
<!-- ===== Interfaces Extended ===== -->
<!-- ===== Classes ===== -->
<xsd:complexType name="BallotMeasureContest">
  <xsd:complexContent>
    <xsd:extension base="Contest">
      <xsd:sequence>
        <xsd:element name="SummaryText" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="FullText" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="ProStatement" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="ConStatement" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="EffectOfAbstain" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="PassageThreshold" type="InternationalizedText" minOccurs="0"/>
      </xsd:sequence>
      <xsd:attribute name="OtherType" type="xsd:string"/>
      <xsd:attribute name="Type" type="BallotMeasureType" use="required"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="BallotMeasureSelection">
  <xsd:complexContent>
    <xsd:extension base="BallotSelection">
      <xsd:attribute name="Selection" type="xsd:string" use="required"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="BallotSelection" abstract="true">
  <xsd:sequence>
    <xsd:element name="VoteCountsCollection" minOccurs="0" maxOccurs="unbounded">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="VoteCounts" type="VoteCounts" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
  </xsd:sequence>
  <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
</xsd:complexType>
<xsd:complexType name="BallotStyle">
  <xsd:sequence>
    <xsd:element name="OrderedContest" type="OrderedContest" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="GpUnitId" type="xsd:IDREF" maxOccurs="unbounded"/>
    <xsd:element name="ImageUri" type="xsd:anyURI" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="PartyId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="Id" type="xsd:string"/>
</xsd:complexType>
<xsd:complexType name="Candidate">
  <xsd:sequence>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="BallotName" type="InternationalizedText"/>
    <xsd:element name="PartyId" type="xsd:IDREF" minOccurs="0"/>
    <xsd:element name="PersonId" type="xsd:IDREF" minOccurs="0"/>
  </xsd:sequence>
  <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
  <xsd:attribute name="FileDate" type="xsd:dateTime"/>
  <xsd:attribute name="Id" type="xsd:string"/>
  <xsd:attribute name="IsIncumbent" type="xsd:boolean"/>
  <xsd:attribute name="IsTopTicket" type="xsd:boolean"/>
  <xsd:attribute name="PostElectionStatus" type="CandidatePostElectionStatus"/>
  <xsd:attribute name="PreElectionStatus" type="CandidatePreElectionStatus"/>
  <xsd:attribute name="SequenceOrder" type="xsd:integer"/>
</xsd:complexType>
<xsd:complexType name="CandidateContest">
  <xsd:complexContent>
    <xsd:extension base="Contest">
      <xsd:sequence>
        <xsd:element name="OfficeId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="PrimaryPartyId" type="xsd:IDREF" minOccurs="0"/>
      </xsd:sequence>
      <xsd:attribute name="NumberElected" type="xsd:integer"/>
      <xsd:attribute name="VotesAllowed" type="xsd:integer" use="required"/>
    </xsd:extension>
  </xsd:complexContent>

```

```

</xsd:complexType>
<xsd:complexType name="CandidateSelection">
  <xsd:complexContent>
    <xsd:extension base="BallotSelection">
      <xsd:sequence>
        <xsd:element name="CandidateId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="EndorsementPartyId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
      </xsd:sequence>
      <xsd:attribute name="IsWriteIn" type="xsd:boolean"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="Coalition">
  <xsd:complexContent>
    <xsd:extension base="Party">
      <xsd:sequence>
        <xsd:element name="ContestId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="PartyId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="Code">
  <xsd:attribute name="OtherType" type="xsd:string"/>
  <xsd:attribute name="Type" type="CodeType" use="required"/>
  <xsd:attribute name="Value" type="xsd:string" use="required"/>
</xsd:complexType>
<xsd:complexType name="ContactInformation">
  <xsd:sequence>
    <xsd:element name="Name" type="xsd:string" minOccurs="0"/>
    <xsd:element name="AddressLine" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Email" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Fax" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Phone" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Schedule" type="Schedule" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Uri" type="xsd:anyURI" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Contest" abstract="true">
  <xsd:sequence>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="BallotTitle" type="InternationalizedText" minOccurs="0"/>
    <xsd:element name="BallotSubTitle" type="InternationalizedText" minOccurs="0"/>
    <xsd:element name="BallotSelection" type="BallotSelection" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="JurisdictionalScopeId" type="xsd:IDREF"/>
    <xsd:element name="SummaryCounts" type="SummaryCounts" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
  <xsd:attribute name="Abbreviation" type="xsd:string"/>
  <xsd:attribute name="HasRotation" type="xsd:boolean"/>
  <xsd:attribute name="Name" type="xsd:string" use="required"/>
  <xsd:attribute name="OtherVoteVariationType" type="xsd:string"/>
  <xsd:attribute name="SequenceOrder" type="xsd:integer"/>
  <xsd:attribute name="SubUnitsReported" type="xsd:integer"/>
  <xsd:attribute name="TotalSubUnits" type="xsd:integer"/>
  <xsd:attribute name="VoteVariationType" type="VoteVariationType"/>
</xsd:complexType>
<xsd:complexType name="CountStatus">
  <xsd:attribute name="OtherType" type="xsd:string"/>
  <xsd:attribute name="Status" type="CountItemStatus" use="required"/>
  <xsd:attribute name="Type" type="CountItemType" use="required"/>
</xsd:complexType>
<xsd:complexType name="Counts" abstract="true">
  <xsd:sequence>
    <xsd:element name="Device" type="Device" minOccurs="0"/>
    <xsd:element name="GpUnitId" type="xsd:IDREF" minOccurs="0"/>
  </xsd:sequence>
  <xsd:attribute name="OtherType" type="xsd:string"/>
  <xsd:attribute name="Type" type="CountItemType"/>
</xsd:complexType>
<xsd:complexType name="Device">
  <xsd:attribute name="Manufacturer" type="xsd:string"/>
  <xsd:attribute name="Model" type="xsd:string"/>
  <xsd:attribute name="Type" type="DeviceType"/>
</xsd:complexType>
<xsd:complexType name="Election">
  <xsd:sequence>
    <xsd:element name="Name" type="InternationalizedText"/>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="ContactInformation" type="ContactInformation" minOccurs="0"/>
    <xsd:element name="ElectionScopeId" type="xsd:IDREF"/>
    <xsd:element name="CountStatus" type="CountStatus" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="BallotStyleCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="BallotStyle" type="BallotStyle" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="CandidateCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>

```

```

        <xsd:element name="Candidate" type="Candidate" minOccurs="1" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="ContestCollection" minOccurs="0">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="Contest" type="Contest" minOccurs="1" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
</xsd:sequence>
<xsd:attribute name="Date" type="xsd:date" use="required"/>
<xsd:attribute name="EndDate" type="xsd:date"/>
<xsd:attribute name="Type" type="ElectionType" use="required"/>
</xsd:complexType>
<xsd:complexType name="ElectionReport">
  <xsd:sequence>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="Notes" type="xsd:string" minOccurs="0"/>
    <xsd:element name="GpUnitCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="GpUnit" type="GpUnit" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="PartyCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="Party" type="Party" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="PersonCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="Person" type="Person" minOccurs="1" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="OfficeCollection" minOccurs="0">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="Office" type="Office" minOccurs="1" maxOccurs="unbounded"/>
          <xsd:element name="OfficeGroup" type="OfficeGroup" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="Election" type="Election" minOccurs="0"/>
    <xsd:element ref="ds:Signature" minOccurs="0"/>
  </xsd:sequence>
  <xsd:attribute name="Format" type="ReportDetailLevel" use="required"/>
  <xsd:attribute name="GeneratedDate" type="xsd:dateTime" use="required"/>
  <xsd:attribute name="IsTest" type="xsd:boolean"/>
  <xsd:attribute name="Issuer" type="xsd:string" use="required"/>
  <xsd:attribute name="IssuerAbbreviation" type="xsd:string" use="required"/>
  <xsd:attribute name="Sequence" type="xsd:integer" use="required"/>
  <xsd:attribute name="SequenceEnd" type="xsd:integer" use="required"/>
  <xsd:attribute name="Status" type="ResultsStatus" use="required"/>
  <xsd:attribute name="TestType" type="xsd:string"/>
  <xsd:attribute name="VendorApplicationId" type="xsd:string" use="required"/>
</xsd:complexType>
<xsd:complexType name="GpUnit" abstract="true">
  <xsd:sequence>
    <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="ComposingGpUnitId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="SummaryCounts" type="SummaryCounts" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
  <xsd:attribute name="Name" type="xsd:string"/>
</xsd:complexType>
<xsd:complexType name="Hours">
  <xsd:attribute name="Day" type="DayType"/>
  <xsd:attribute name="EndTime" type="TimewithZone" use="required"/>
  <xsd:attribute name="StartTime" type="TimewithZone" use="required"/>
</xsd:complexType>
<xsd:complexType name="InternationalizedText">
  <xsd:sequence>
    <xsd:element name="LanguageString" type="LanguageString" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="Identifier" type="xsd:string"/>
</xsd:complexType>
<xsd:complexType name="LanguageString">
  <xsd:simpleContent>
    <xsd:extension base="xsd:string">
      <xsd:attribute name="Language" type="xsd:language" use="required"/>
    </xsd:extension>
  </xsd:simpleContent>
</xsd:complexType>
<xsd:complexType name="Office">
  <xsd:sequence>

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        <xsd:element name="Name" type="InternationalizedText"/>
        <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="Term" type="Term" minOccurs="0"/>
        <xsd:element name="JurisdictionalScopeId" type="xsd:IDREF" minOccurs="0"/>
        <xsd:element name="OfficeHolderId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="ContactInformation" type="ContactInformation" minOccurs="0"/>
    </xsd:sequence>
    <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
    <xsd:attribute name="FilingDeadline" type="xsd:dateTime"/>
    <xsd:attribute name="IsPartisan" type="xsd:boolean"/>
</xsd:complexType>
<xsd:complexType name="OfficeGroup">
    <xsd:sequence>
        <xsd:element name="OfficeId" type="xsd:IDREF" minOccurs="1" maxOccurs="unbounded"/>
        <xsd:element name="SubOfficeGroup" type="OfficeGroup" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
    <xsd:attribute name="Name" type="xsd:string" use="required"/>
</xsd:complexType>
<xsd:complexType name="OrderedContest">
    <xsd:sequence>
        <xsd:element name="ContestId" type="xsd:IDREF"/>
        <xsd:element name="BallotSelectionId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Party">
    <xsd:sequence>
        <xsd:element name="Name" type="InternationalizedText"/>
        <xsd:element name="Code" type="Code" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
    <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
    <xsd:attribute name="Abbreviation" type="xsd:string"/>
    <xsd:attribute name="Color" type="HtmlColorString"/>
    <xsd:attribute name="LogoUri" type="xsd:anyURI"/>
</xsd:complexType>
<xsd:complexType name="PartyContest">
    <xsd:complexContent>
        <xsd:extension base="Contest"/>
    </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="PartyRegistration">
    <xsd:sequence>
        <xsd:element name="PartyId" type="xsd:IDREF"/>
    </xsd:sequence>
    <xsd:attribute name="Count" type="xsd:integer" use="required"/>
</xsd:complexType>
<xsd:complexType name="PartySelection">
    <xsd:complexContent>
        <xsd:extension base="BallotSelection">
            <xsd:sequence>
                <xsd:element name="PartyId" type="xsd:IDREF" maxOccurs="unbounded"/>
            </xsd:sequence>
        </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="Person">
    <xsd:sequence>
        <xsd:element name="ContactInformation" type="ContactInformation" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="FirstName" type="xsd:string" minOccurs="0"/>
        <xsd:element name="FullName" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="Gender" type="xsd:string" minOccurs="0"/>
        <xsd:element name="LastName" type="xsd:string" minOccurs="0"/>
        <xsd:element name="MiddleName" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="Nickname" type="xsd:string" minOccurs="0"/>
        <xsd:element name="PartyId" type="xsd:IDREF" minOccurs="0"/>
        <xsd:element name="Prefix" type="xsd:string" minOccurs="0"/>
        <xsd:element name="Profession" type="InternationalizedText" minOccurs="0"/>
        <xsd:element name="Suffix" type="xsd:string" minOccurs="0"/>
        <xsd:element name="Title" type="InternationalizedText" minOccurs="0"/>
    </xsd:sequence>
    <xsd:attribute name="ObjectId" type="xsd:ID" use="required"/>
    <xsd:attribute name="DateOfBirth" type="xsd:date"/>
</xsd:complexType>
<xsd:complexType name="ReportingDevice">
    <xsd:complexContent>
        <xsd:extension base="GpUnit">
            <xsd:sequence>
                <xsd:element name="Device" type="Device" minOccurs="0"/>
            </xsd:sequence>
            <xsd:attribute name="SerialNumber" type="xsd:string"/>
        </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ReportingUnit">
    <xsd:complexContent>
        <xsd:extension base="GpUnit">
            <xsd:sequence>
                <xsd:element name="AuthorityId" type="xsd:IDREF" minOccurs="0" maxOccurs="unbounded"/>
                <xsd:element name="ContactInformation" type="ContactInformation" minOccurs="0"/>
                <xsd:element name="CountStatus" type="CountStatus" minOccurs="0" maxOccurs="unbounded"/>
                <xsd:element name="PartyRegistration" type="PartyRegistration" minOccurs="0" maxOccurs="unbounded"/>
                <xsd:element name="SpatialDimension" type="SpatialDimension" minOccurs="0"/>
            </xsd:sequence>
        </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>

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        <xsd:attribute name="IsElectoralDistrict" type="xsd:boolean"/>
        <xsd:attribute name="OtherType" type="xsd:string"/>
        <xsd:attribute name="SubUnitsReported" type="xsd:integer"/>
        <xsd:attribute name="TotalSubUnits" type="xsd:integer"/>
        <xsd:attribute name="Type" type="ReportingUnitType" use="required"/>
        <xsd:attribute name="VotersParticipated" type="xsd:integer"/>
        <xsd:attribute name="VotersRegistered" type="xsd:integer"/>
    </xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="RetentionContest">
    <xsd:complexContent>
        <xsd:extension base="BallotMeasureContest">
            <xsd:sequence>
                <xsd:element name="CandidateId" type="xsd:IDREF"/>
                <xsd:element name="OfficeId" type="xsd:IDREF" minOccurs="0"/>
            </xsd:sequence>
        </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="Schedule">
    <xsd:sequence>
        <xsd:element name="Hours" type="Hours" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
    <xsd:attribute name="EndDate" type="xsd:date"/>
    <xsd:attribute name="IsOnlyByAppointment" type="xsd:boolean"/>
    <xsd:attribute name="IsOrByAppointment" type="xsd:boolean"/>
    <xsd:attribute name="IsSubjectToChange" type="xsd:boolean"/>
    <xsd:attribute name="StartDate" type="xsd:date"/>
</xsd:complexType>
<xsd:complexType name="SpatialDimension">
    <xsd:sequence>
        <xsd:element name="SpatialExtent" type="SpatialExtent" minOccurs="0"/>
    </xsd:sequence>
    <xsd:attribute name="MapUri" type="xsd:anyURI"/>
</xsd:complexType>
<xsd:complexType name="SpatialExtent">
    <xsd:sequence>
        <xsd:element name="Coordinates" type="xsd:string"/>
    </xsd:sequence>
    <xsd:attribute name="Format" type="GeoSpatialFormat" use="required"/>
</xsd:complexType>
<xsd:complexType name="SummaryCounts">
    <xsd:complexContent>
        <xsd:extension base="Counts">
            <xsd:attribute name="BallotsCast" type="xsd:integer"/>
            <xsd:attribute name="BallotsOutstanding" type="xsd:integer"/>
            <xsd:attribute name="BallotsRejected" type="xsd:integer"/>
            <xsd:attribute name="Overvotes" type="xsd:integer"/>
            <xsd:attribute name="Undervotes" type="xsd:integer"/>
            <xsd:attribute name="WriteIns" type="xsd:integer"/>
        </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="Term">
    <xsd:attribute name="EndDate" type="xsd:date"/>
    <xsd:attribute name="StartDate" type="xsd:date"/>
    <xsd:attribute name="Type" type="OfficeTermType"/>
</xsd:complexType>
<xsd:complexType name="VoteCounts">
    <xsd:complexContent>
        <xsd:extension base="Counts">
            <xsd:attribute name="Count" type="xsd:float" use="required"/>
        </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
</xsd:schema>

```