Resume 2.1

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Resume-2_1

Previous version:
Resume-2_0

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Abstract

This document describes HR-XML's new Resume schema. The schema allows the capture of resume information used by hiring or staffing-related organizations.

Status of this Document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119.

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1 Overview

Resume 2.1 contains several enhancements to, but is backward compatible with the Resume 2.0 specification. These enhancements were added, based on implementer feedback, to allow a wider variety of professional and personal information to be exchanged.

1.1 Terminology

1.1.1 Resume vs. Curriculum Vitae

Distinctions are sometimes made between the terms “Resume” (also spelled as Résumé) and “Curriculum Vitae” (frequently abbreviated as “CV”). Distinctions between these documents are sometimes based on the length, content, and purpose of the document. A resume is frequently thought of as a summary (one or two pages) of a candidate’s skills, experience, and education. A CV may be longer and include details on academic and research experience, publications, inventions (patents), presentations, awards, honors, affiliations, and other details.

The use of the terms “Resume” and “Curriculum Vitae” or “CV” also varies based on local custom. In some jurisdictions the use of one term may be more common than the other in referring to a document containing a job seeker’s qualifications.

For purposes of this specification, the term “Resume” will be used to include both the Resume and CV document types. While the two types of documents are sometimes distinguished based on length, content, and purpose, the HR-XML Consortium Resume schema can flexibly accommodate the underlying structure for both of these document types.

1.1.2 Resume vs. Candidate Profile

A Candidate Profile may be described as a set of data pertaining to a job seeker that has been compiled and structured in a way to optimize automated matching of supply and demand for talent. Candidate profiles are created to capture overall work related preferences, skills and historical information that are not specific to a particular position. A resume, however is frequently customized to particular positions, so that the most relevant information is emphasized. There is usually a core intersection of common data between a Resume and a Candidate Profile. However, a resume can include some data not included in a corresponding Candidate Profile and vice versa. For instance, a resume may include “avocational” information (hobbies, demographic data, and personal interests) and histories of publications, patents, presentations, awards, or similar information not generally used for matching against position requirements. A resume would not typically include details on the job seeker’s work preferences and salary requirements. While a Candidate profile may exclude some of the information included in a corresponding Resume or CV, it might support the ability to link to or retrieve the full Resume/CV.

Another way that Resumes and Candidate Profiles differ is that Resumes more commonly are a “formatted” representation of job seeker qualifications. One of the goals of a job seeker in

creating a Resume is to have a formatted document (paper, HTML, Flash™, Portable Document Format (PDF), or other means of online presentation). Data within a Candidate Profile may be flexibly formatted (even formatted as a "Resume"). However, formatting and display are typically not the primary reason for creating Candidate Profiles.

Resumes and Candidate Profiles also differ in the way they are created and maintained. Resumes commonly are created within word processing software or desktop office software and stored locally. In a Profile-based system, candidates are provided the ability to create and maintain a personal profile on a career website or company's employment portal. The Candidate Profile is stored in a database, accessible through the career web site or portal by the job seeker using a password. The job seeker can login to modify and update the information on file.

A Resume can serve as a source for some of the data necessary to build a Candidate Profile, although it often has to be "manually integrated" from the Resume into the Profile. For instance, the job seeker or a recruiter keys the data from the Resume into a Web-based form. In other cases, a resume extraction tool (a piece of software that lexically parses and interprets a resume file) takes information from the Resume and populates appropriate fields within a Candidate Profile. It may not be possible to complete the Candidate Profile from the Resume. A recruiter may follow up with the job seeker in an initial screening interview or the job seeker might be asked to provide the additional information through a web-based interface. Information in a Resume may need to be interpreted or verified, through assessment tests and screenings, in building a Candidate Profile.

1.1.3 Shared Components

Many of the modules used in the Resume may also be useful in other schemas. These 'shared components' are stored in the CPO library and may be included in other HR-XML schemas. Examples include EmploymentHistory, PatentHistory, LicenseAndCertification, etc.

1.2 Design Requirements

The Resume schema is a combination of resume information and insertions of several shared components. Competencies, Employment History, Education History, and Military History were approved in prior specifications and are compatible with Resume 2.1. The shared schemas (Associations, License and Certification, etc.) are part of this specification but may be used within other schemas outside of Resume 2.1.

The schema provides for two types of resumes: structured and non-structured. The structured resume is defined as discrete XML elements. A non-structured (non-XML) resume may be included as a URL to the resume or an insertion of the resume text (as opposed to an attachment).

1.3 Scope

The HR-XML Consortium's Recruiting and Staffing workgroup recognizes the need to support requirements for both Resumes and Candidate Profiles by publishing two separate

specifications. This is essential for meeting the requirements of job seekers as well as the recruiting community. The Resume specification is defined in this document. A new specification for Candidate Profile will be published in the near future. The two specifications are designed to share key components, such as the Consortium's EmploymentHistory, EducationHistory, MilitaryHistory and Competency schemas.

Although resume transactions may be used in a broad range of business cases, this specification focuses on business cases for use in the recruiting of regular and contingent workers.

This specification was developed to enable global use and therefore, may contain (optional) information that is acceptable to collect in one location and unlawful to collect in another location. It is the responsibility of the implementers to comply with the appropriate regulatory requirements for each transaction.

1.3.1 Items Within the Design Scope

Enables data interchange among:

- Hiring Organizations
- Staffing Companies
- Candidates
- Recruitment Systems Vendors
- Recruitment Service Vendors
- Screening Service Vendors

Resume modules include:

- Distribution Guidelines
- Executive Summary – This string is for bullet points or summary of the resume details.
- Objective
- Employment History
- Educational History
- Licenses and Certifications
- Military History
- Patent History
- Publication History
- Speaking Events History
- Qualifications (Competencies 1.1)
- Languages
- Achievements
- Associations – (Replaces Professional Associations which is now deprecated)
- References
- Security Credentials
- Resume Additional Items

1.3.2 Items Outside of Design Scope

- Resume Attachments
- Job Preferences
- Demographic Information

- Remuneration/Compensation

1.4 Summary of Changes

The following sections summarize the enhancements to the top-level Resume, StructuredXMLResume, and NonXMLResume components. A minor addition was also made to the EmploymentHistory schema. The components are described in more detail in the following chapters.

Resume

Added following components:

- Resume Id
- Distribution Guidelines
- Language attribute

StructuredXMLResume

Added following components:

- Executive Summary
- Licenses and Certifications
- Patent History
- Publication History
- Speaking Events History
- Languages
- Achievements
- Associations
- References
- Security Credentials
- Resume Additional Items
- SupportingMaterials

Modified following components:

- Changed several top-level elements from required to optional.
- Deprecated ProfessionalAssociation in favor of Associations.

NonXMLStructured

Added following components:

- SupportingMaterials

Modified following components:

- Deprecated LinkToResume in favor of SupportingMaterials.

EmploymentHistory

Added following component to PositionHistory:

- Job Grade

2 Business Use Case

The HR-XML Consortium's Resume specification can be used within a variety of contexts. As described in the sections that follow, the Resume schema is useful within a wide-range of data exchange scenarios. There also is significant interest in using the HR-XML Consortium's Resume schema as a neutral file type from which a wide variety of formatted representations can be produced.

2.1 Data Exchange

2.1.1 Roles

The current Internet recruiting and staffing environment involves a diverse range of end-users and intermediaries. Because the types of end-users and intermediaries can vary significantly and may be subject to change as new staffing and business models emerge, this specification uses the following generic descriptors to identify process-compliant parties:

- **Staffing Supplier (SS).** The agent role that submits candidates for consideration for a job or position. A job board or staffing service provider typically fills this role.

- **Staffing Customer (SC).** The role that receives candidates either directly or through a staffing supplier. A hiring organization often would fill this role.

- **Candidate.** An individual (job seeker) submitted to a staffing customer or a staffing supplier in response to a job or position opening.

2.1.2 Hiring Company Transaction

The Resume schema can provide a standard means of transmitting critical resume information between a candidate and a staffing customer (SC). Depending on the staffing strategy and operations of the SC, this transmission may occur in many different ways, as described in the following three examples:

- The candidate may log onto the SC's external web site and input resume information, which would then be returned to the SC's internal database via the Resume schema.

- A SC staffing operations may involve a 3rd party firm that will aggregate and store applicant resumes from one or many different sources (paper, e-mail, job boards, etc). In this case, the 3rd party firm may rely on the Resume schema to transmit resume information of pertinent resources back to the SC.

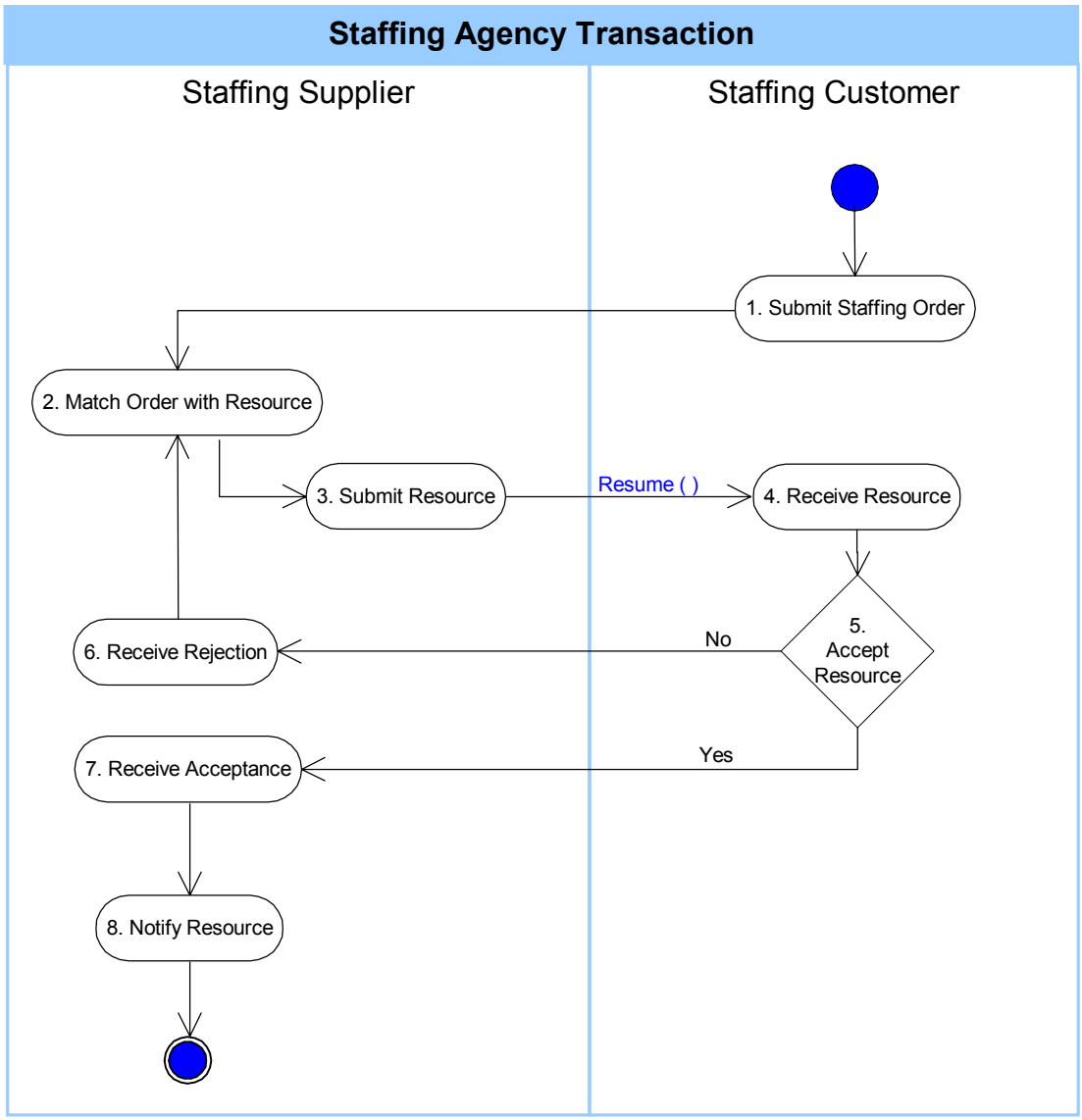
- The SC may also solicit resumes from staffing suppliers (SS). In this case, which is outlined in more detail in section 1.4.3, the SC would receive resume information transmitted by the SS via the Resume schema.

2.1.3 Staffing Agency Transaction

The following example describes the transactions between a staffing supplier (SS) and a staffing customer (SC).

The SS provides resources to the SC based on orders (requirements) submitted by the SC. The SS matches candidates to the requirements from the SC. Once a match is found the resume information is submitted to the SC. The SC determines if the candidate meets their needs and returns the information back to the SS.

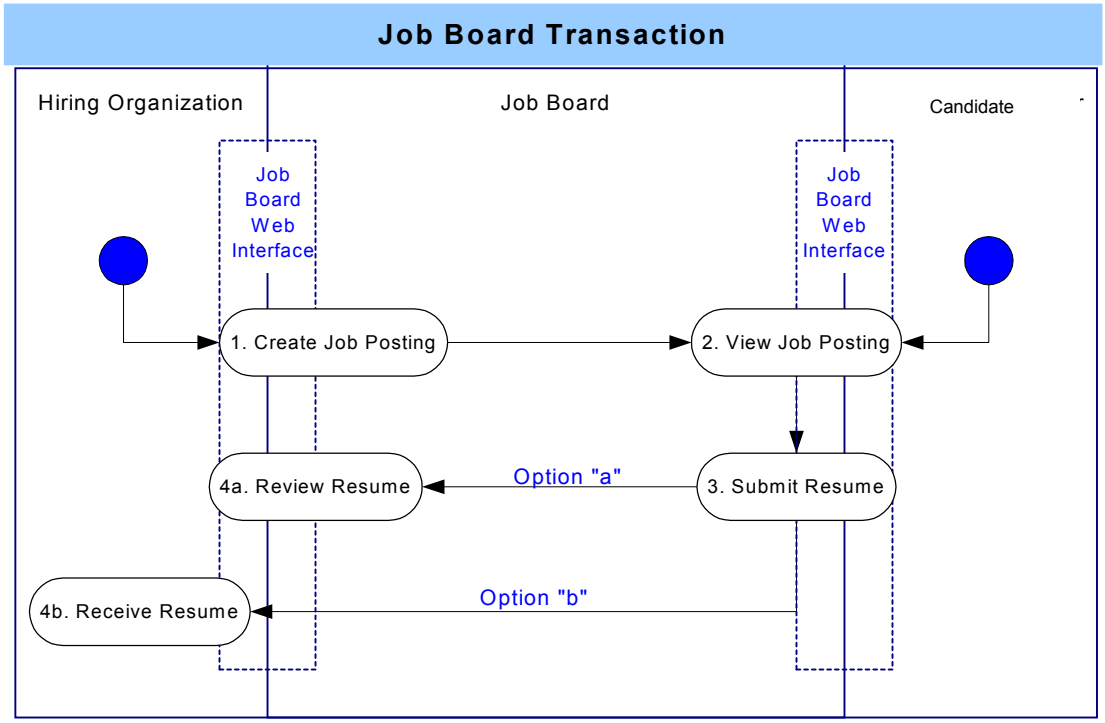
The Resume schema is used during the transaction between step 3 and 4.



2.1.4 Job Board Transaction

The following example shows a transaction between an SC and a candidate by way of a job board.

In a typical job board environment, the requisition or job posting takes place on the job board site. The candidate also views the posting on the job board's site. At that point, the candidate may submit a structured or text resume in response to a job posting. Depending on the business model or Trading Partner Agreement of the job board, staffing customers may either review resumes directly on the site (Option "a"), or the site may pass the candidate directly to the hiring organization or a third party site (Option "b"). This example does not address the aggregation or screening of resumes.



2.2 Formatted Publishing of Resumes

Much of the HR-XML Consortium's work has focused on enabling data interchange. However, there is particular interest in using the HR-XML Consortium's Resume schema as a structured, archival file from which a variety of formatted representations can be produced (for example, text, .rtf, .pdf, html, flash™, etc.).

The development of stylesheets for formatting resumes is outside of the scope of the HR-XML Consortium's work. However, the need to format and group resume elements for presentation was considered in the design of the HR-XML Consortium Resume schema. A variety of commercial and open-source initiatives are underway to develop tools for the creation and transformation of HR-XML resumes.

3 Schema Design

3.1 Resume

Resume information may be exchanged in structured components, as a textual document, or as a link. In addition to the resume data, transactional information may be exchanged, such as an Id to relate the resume to a posting, distribution guidelines, comments, and a revision date. An optional contact information module is included in StructuredResume but is only intended to contain information about the candidates themselves. (See the implementation guidelines towards the end of this document)

3.1.1 Resume Schema Diagram

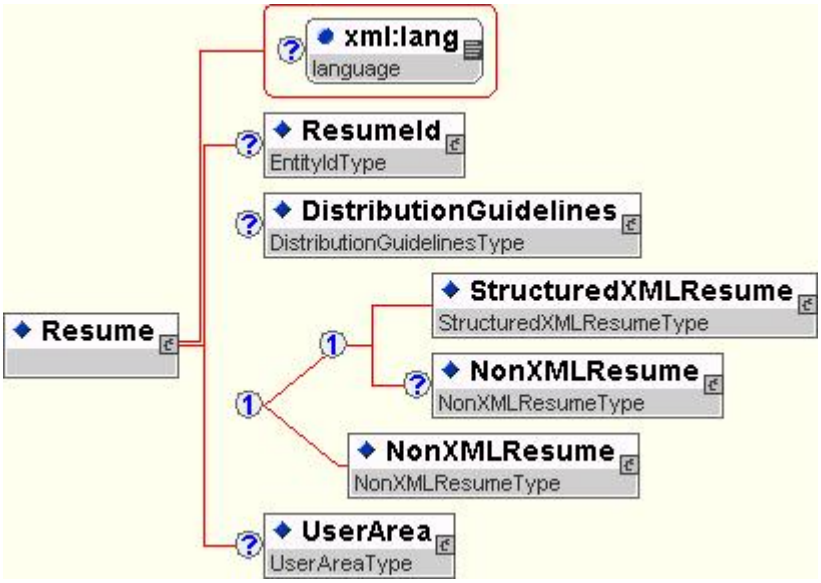
The content model for the Resume element may seem confusing upon initial inspection. However, it correctly conveys the proper requirements. In short, the desire for the content model is to require these three (and only these three) possibilities:

1) StructuredXMLResume only

2) NonXMLResume only

3) StructuredXMLResume and NonXMLResume both (but not more than one of each)

An XML instance must have at least one of these elements, and may have both, but cannot have more than one of either. In this way, a structured Resume can be accompanied by additional unstructured content such as a cover letter or photograph. However, they are all considered part of a single Resume package and not multiple Resumes.



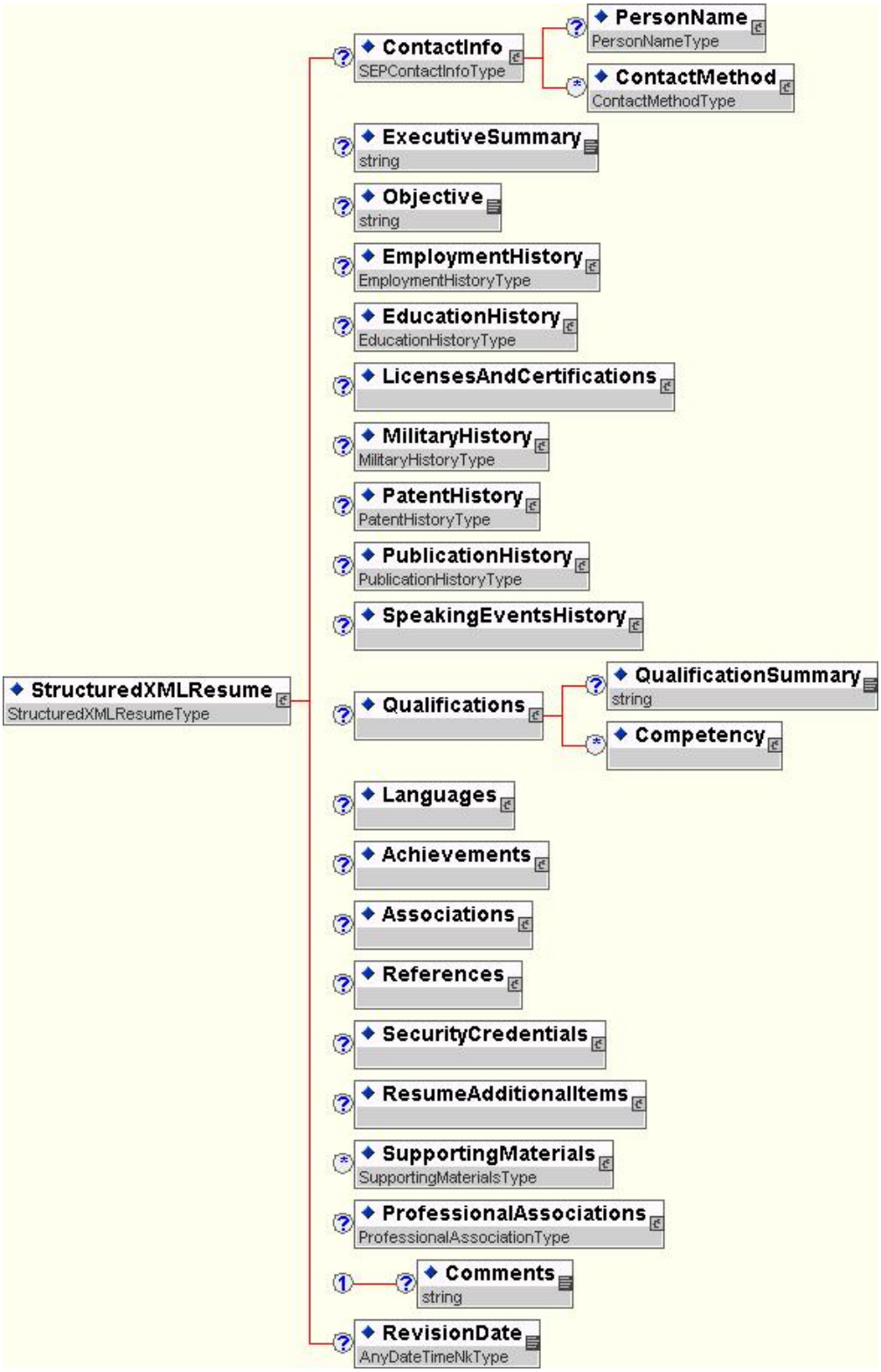
3.1.2 Resume Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **Resume**	xml:lang - - ResumeId - EntityIdType - S (0/1) DistributionGuidelines - DistributionGuidelinesType - S (0/1) StructuredXMLResume - StructuredXMLResumeType - S (1/1) NonXMLResume - NonXMLResumeType - S (0/1) NonXMLResume - NonXMLResumeType - C (1/1) UserArea - [see include/import] - S (0/1)	The resume or CV of a candidate.
/ Resume/ **ResumeId**	- EntityIdType - S (0/1)	A unique identifier for a specific instance of a resume or CV
/ Resume/ **DistributionGuidelines**	- DistributionGuidelinesType - S (0/1)	Allows a person to specify guidelines for distributing the resume or profile information.
/ Resume/ **StructuredXMLResume**	- StructuredXMLResumeType - S (1/1)	A structured resume with discrete XML element tags.
/ Resume/ **NonXMLResume**	- NonXMLResumeType - S (0/1)	A section to insert the entire resume text or a link to a resume.
/ Resume/ **NonXMLResume**	- NonXMLResumeType - C (1/1)	A section to insert the entire resume text or a link to a resume.

Global types (alphabetically listed)	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **[NonXMLResumeType]**	TextResume - xsd:string - S (0/1) LinkToResume - xsd:string - S (0/1) SupportingMaterials - SupportingMaterialsType - S (0/*) Comments - xsd:string - (see Comments	Globally scoped data type. See element or attribute declaration for definition.

	group occurrence) RevisionDate - AnyDateTimeNkType - S (0/1)	
/ **[StructuredXMLResumeType]**	ContactInfo - SEPContactInfoType - S (0/1) ExecutiveSummary - xsd:string - S (0/1) Objective - xsd:string - S (0/1) EmploymentHistory - [see include/import] - S (0/1) EducationHistory - [see include/import] - S (0/1) LicensesAndCertifications - [see include/import] - S (0/1) MilitaryHistory - [see include/import] - S (0/1) PatentHistory - [see include/import] - S (0/1) PublicationHistory - [see include/import] - S (0/1) SpeakingEventsHistory - [see include/import] - S (0/1) Qualifications - [complexType] - S (0/1) Languages - [complexType] - S (0/1) Achievements - [see include/import] - S (0/1) Associations - [see include/import] - S (0/1) References - [see include/import] - S (0/1) SecurityCredentials - [see include/import] - S (0/1) ResumeAdditionalItems - [complexType] - S (0/1) ProfessionalAssociations - ProfessionalAssociationType - S (0/1) Comments - xsd:string - (see Comments group occurrence) RevisionDate - AnyDateTimeNkType - S (0/1)	Globally scoped data type. See element or attribute declaration for definition.

3.1.3 StructuredXMLResume Schema Diagram

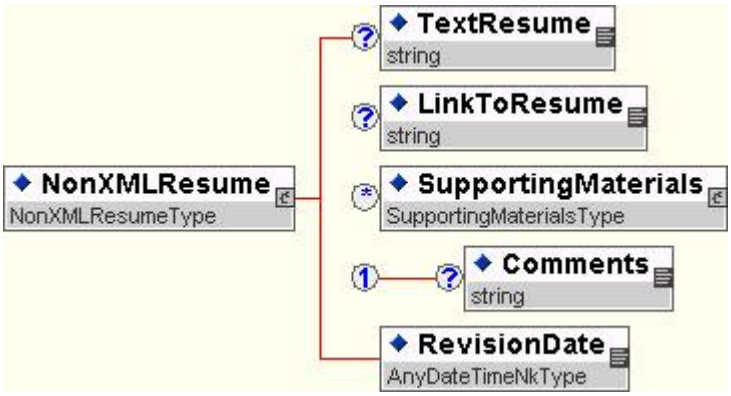


3.1.4 StructuredXMLResume Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **StructuredXMLResume**	- StructuredXMLResumeType - (1/1)	A structured resume with discrete XML element tags.
/ StructuredXMLResume/ **ContactInfo**	- SEPContactInfoType - S (0/1)	Contains information to contact a person or entity.
/ StructuredXMLResume/ **ExecutiveSummary**	- xsd:string - S (0/1)	A text field where the contents of the resume can be briefly summarized.
/ StructuredXMLResume/ **Objective**	- xsd:string - S (0/1)	The description of the job or position being sought, or information about the Human Resource's desired career path or professional objectives.
/ StructuredXMLResume/ **Qualifications**	QualificationSummary - xsd:string - S (0/1) Competency - [see include/import] - S (0/*)	Contains the qualifications of the human resource. This includes the skills, competencies and other applicable comments.
/ StructuredXMLResume/ Qualifications/ **QualificationSummary**	- xsd:string - S (0/1)	A descriptive field used to further comment on the qualifications of the Human Resource.
/ StructuredXMLResume/ **Languages**	Language - [see include/import] - S (1/*)	Contains information about one or more languages.
/ StructuredXMLResume/ **ResumeAdditionalItems**	ResumeAdditionalItem - [see include/import] - S (1/*)	Contains one or more flexible, structured containers to accommodate a wide variety of information types that might be included on a resume.
/ StructuredXMLResume/ **SupportingMaterials**	- SupportingMaterialsType - S (0/*)	Allows the exchange of supporting resume information.
/ StructuredXMLResume/ **ProfessionalAssociations**	- ProfessionalAssociationType - S (0/1)	A list of professional associations of which the candidate is a member.
/ StructuredXMLResume/ **Comments**	- xsd:string - (see Comments group occurrence)	Defines unstructured data for a group of elements as in Comments or Description.
/ StructuredXMLResume/ **RevisionDate**	- AnyDateTimeNkType - S (0/1)	The date the information was last updated.

Global types (alphabetically listed)	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **[SEPContactInfoType]**	PersonName - [see include/import] - S (0/1) ContactMethod - ContactMethodType - S (0/*)	Globally scoped data type. See element or attribute declaration for definition.
/ **[StructuredXMLResumeType]**	ContactInfo - SEPContactInfoType - S (0/1) ExecutiveSummary - xsd:string - S (0/1) Objective - xsd:string - S (0/1) EmploymentHistory - [see include/import] - S (0/1) EducationHistory - [see include/import] - S (0/1) LicensesAndCertifications - [see include/import] - S (0/1) MilitaryHistory - [see include/import] - S (0/1) PatentHistory - [see include/import] - S (0/1) PublicationHistory - [see include/import] - S (0/1) SpeakingEventsHistory - [see include/import] - S (0/1) Qualifications - [complexType] - S (0/1) Languages - [complexType] - S (0/1) Achievements - [see include/import] - S (0/1) Associations - [see include/import] - S (0/1) References - [see include/import] - S (0/1) SecurityCredentials - [see include/import] - S (0/1) ResumeAdditionalItems - [complexType] - S (0/1) SupportingMaterials - SupportingMaterialsType - S (0/*) ProfessionalAssociations - ProfessionalAssociationType - S (0/1) Comments - xsd:string - (see Comments group occurrence) RevisionDate - AnyDateTimeNkType - S (0/1)	Globally scoped data type. See element or attribute declaration for definition.

3.1.5 NonXMLResume Schema Diagram



3.1.6 NonXMLResume Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **NonXMLResume**	NonXMLResumeType - (1/1) TextResume - xsd:string - S (0/1) LinkToResume - xsd:string - S (0/1) SupportingMaterials - SupportingMaterialsType - S (0/*) Comments - xsd:string - (see Comments group occurrence) RevisionDate - AnyDateTimeNkType - S (0/1)	A section to insert the entire resume text or a link to a resume.
/ NonXMLResume/ **TextResume**	- xsd:string - S (0/1)	The contents or text of a resume in an unstructured (and possibly un-formatted) form
/ NonXMLResume/ **LinkToResume**	- xsd:string - S (0/1)	Deprecated. Recommend using Supporting Materials. A link or URL to the resume.
/ NonXMLResume/ **SupportingMaterials**	- SupportingMaterialsType - S (0/*)	Allows the exchange of supporting resume information.
/ NonXMLResume/ **Comments**	- xsd:string - (see Comments group occurrence)	Defines unstructured data for a group of elements as in Comments or Description.
/ NonXMLResume/ **RevisionDate**	- AnyDateTimeNkType - S (0/1)	The date the information was last updated.

3.1.7 Example

See Appendix B – Related Documents for a sample XML resume.

3.2 Executive Summary

The Executive Summary should be used to give a synopsis of the resume. The summary may be described with bullet points or in paragraph form.

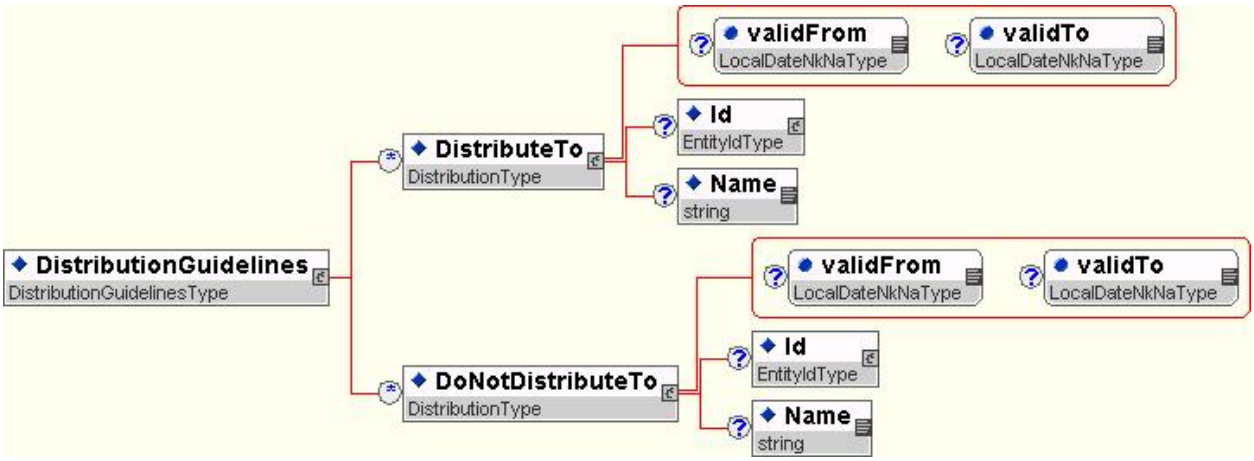
3.2.1 Example

```
<StructuredXMLResume>
    <ExecutiveSummary>As more people in all sectors of society come online, it is important to consider how we might help these groups work together in meaningful ways. My research focuses on the design and management of online communities that bring together diverse stakeholders, particularly underrepresented populations (kids, elders, minorities, etc.), and support them in leveraging their strengths in a collaborative environment. My thesis work, Palaver Tree Online, is an example of one such community
    .</ExecutiveSummary>
</StructuredXMLResume>
```

3.3 Distribution Guidelines

It is common when posting a resume to want to either direct the resume to a particular entity or entities, or to restrict the resume from being distributed to an entity or entities (such as a current employer). This schema allows a candidate to state distribution guidance, as well as placing the guidance in the context of a date range, if desired. DistributionGuidelines is included from the SharedStaffingModule schema.

3.3.1 Schema Diagram



3.3.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	ContentModel* Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	Definition

/ **DistributionGuidelines**	DistributionGuidelinesType - S (0/1) DistributeTo - DistributionType - S (0/*) DoNotDistributeTo - DistributionType - S (0/*)	Allows a person to specify guidelines for distributing the resume or profile information.
/ **DistributeTo**	DistributionType - S (0/*)	Any company, person, organization, etc. to which the information may be distributed.
DoNotDistributeTo	DistributionType - S (0/*)	Any company, person, organization, etc. to which the information should not be distributed.

Global types (alphabetically listed)	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **[DistributionType]**	validFrom - LocalDateNkNaType - validTo - LocalDateNkNaType - Id - EntityIdType - S (0/1) Name - xsd:string - S (0/1)	Globally scoped data type. See element or attribute declaration for definition.
/ [DistributionType] / **validFrom**	- LocalDateNkNaType -	The date the guidance begins, is active or valid.
/ [DistributionType] / **validTo**	- LocalDateNkNaType -	The (inclusive) date through which the guidance is active or valid.
/ [DistributionType]/ **Id**	- EntityIdType - S (0/1)	A unique identifier used to reference an entity. The Id is associated with the higher level element, in this case the entity that the resume should or should not be distributed to.
/ [DistributionType]/ **Name**	- xsd:string - S (0/1)	A descriptive identifier within a given context.

3.3.3 Example

```
<Resume>
    <DistributionGuidelines>
        <DistributeTo validFrom="2003-04-15">
```

```
            <Name>Elliott Laboratories</Name>
        </DistributeTo>
        <DoNotDistributeTo validFrom="2003-04-15">
            <Name>Marrion Resource Center</Name>
        </DoNotDistributeTo>
    </DistributionGuidelines>
    </StructuredXMLResume>
</Resume>
```

3.4 EmploymentHistory

This module captures detailed information about a candidate's current or historical work experiences. EmploymentHistory is a shared component, which is "included" in Resume 2.1. Full details can be found by following the link in Appendix B.

There is one backward compatible change to this module. A JobGrade element was added to the PositionHistory. Job Grades are sometimes defined by means of job evaluation scores or other means of describing jobs of similar size or worth. In the context of a Resume, JobGrade typically would be relevant for applications within an organization where a job grade might confer hiring preferences. For example, a government employee applying for a position within another agency might specify the "civil service grade" of his or her position.

3.5 EducationHistory

This module captures detailed information about a candidate's current or historical educational or formal training experiences. EducationHistory is a shared component and is an "include" in Resume 2.1. Full details can be found by following the link in Appendix B.

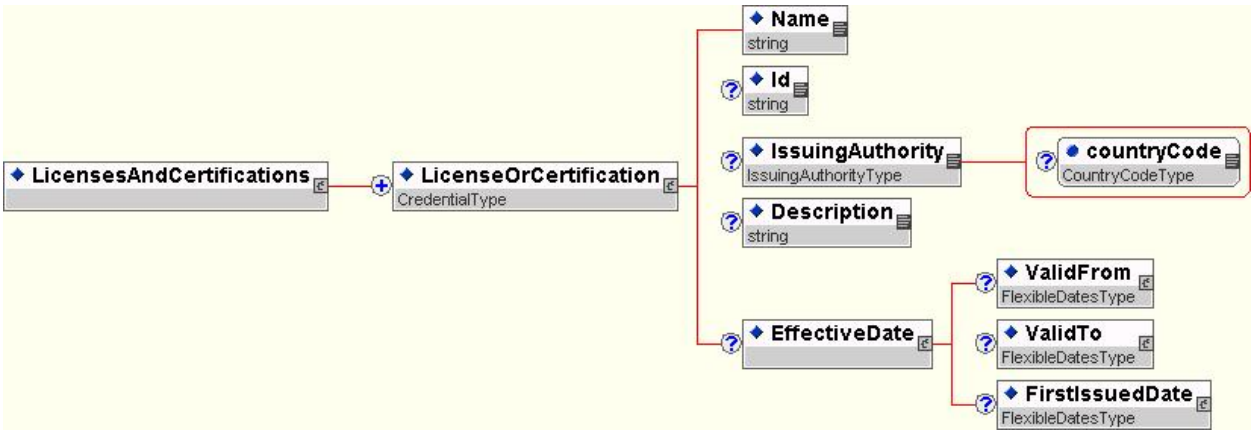
3.6 MilitaryHistory

This module captures detailed information about a candidate's previous military experience. MilitaryHistory is a shared component and is an "include" in Resume 2.1. Full details can be found by following the link in Appendix B.

3.7 Licenses and Certifications

This new schema will allow the exchange of information about licenses, certifications and other accreditations. When the license or certification is a requirement for a particular position and requires competency evidence, the Competency specification should be used instead. See Implementation Guidelines for further details.

3.7.1 Schema Diagram



3.7.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **LicensesAndCertifications**	LicenseOrCertification - CredentialType - S (1/*)	Contains information about a set of License and Certification components.
/ LicensesAndCertifications/ **LicenseOrCertification**	CredentialType - S (1/*) Name - xsd:string - S (0/1) Id - xsd:string - S (0/1) IssuingAuthority - IssuingAuthorityType - S (0/1) Description - xsd:string - S (0/1) EffectiveDate - [complexType] - S (0/1)	Contains basic information identifying a license (for example, a nurse's license or other professional license) or a certification (for example "Certified Employee Benefits Specialist" or "Microsoft Certified Engineer"). LicenseOrCertification is used where it is necessary to present summary groupings of information about licenses or certifications (such as in the context of a Resume). A license or certification also can be valuable evidence of a competency. Tests or assessments associated with a license or certification can be useful competency measures. Thus, in the context of other HR-XML specifications, it may be appropriate to capture license or certification within the Competency component.
/ LicensesAndCertifications/ LicenseOrCertification/ **Name**	- xsd:string - S (0/1)	A descriptive identifier within a given context.
/ LicensesAndCertifications/ LicenseOrCertification/ **Id**	- xsd:string - S (0/1)	A unique identifier used to reference the entity. The Id is associated with the higher level element.
/ LicensesAndCertifications/ LicenseOrCertification/ **IssuingAuthority**	- IssuingAuthorityType - S (0/1)	Specifies the issuing authority of the associated element.

/ LicensesAndCertifications/ LicenseOrCertification/ **Description**	- xsd:string - S (0/1)	Describes the contextual information relating to a specific element.
/ LicensesAndCertifications/ LicenseOrCertification/ **EffectiveDate**	ValidFrom - FlexibleDatesType - S (0/1) ValidTo - FlexibleDatesType - S (0/1) FirstIssuedDate - FlexibleDatesType - S (0/1)	Date or time interval on or during which information or events are effective.
/ LicensesAndCertifications/ LicenseOrCertification/ EffectiveDate/ **ValidFrom**	- FlexibleDatesType - S (0/1)	The date the event begins, is active or valid.
/ LicensesAndCertifications/ LicenseOrCertification/ EffectiveDate/ **ValidTo**	- FlexibleDatesType - S (0/1)	The date through which the event is active.
/ LicensesAndCertifications/ LicenseOrCertification/ EffectiveDate/ **FirstIssuedDate**	- FlexibleDatesType - S (0/1)	Specifies the date the item was first issued.

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **[IssuingAuthorityType]**	xsd:extension **base:** xsd:string countryCode - CountryCodeType - -	Globally scoped data type. See element or attribute declaration for definition.
/ [IssuingAuthorityType] / **countryCode**	- CountryCodeType -	Contains the ISO 3166-1 two-character country code.

3.7.3 Example

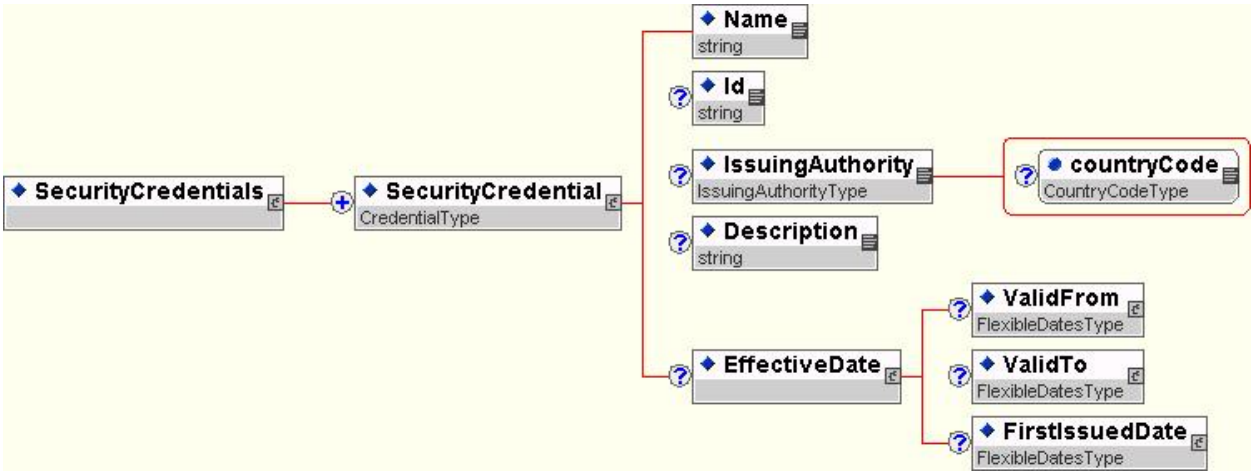
```
<LicensesAndCertifications>
    <LicenseOrCertification>
        <Name>Drivers License</Name>
        <IssuingAuthority>Department of Motor Vehicles</IssuingAuthority>
        <Description>CO 277614</Description>
        <EffectiveDate>
            <ValidFrom>
                <AnyDate>1999-03-04</AnyDate>
```

```
            </ValidFrom>
            <ValidTo>
                <AnyDate>2004-03-04</AnyDate>
            </ValidTo>
        </EffectiveDate>
    </LicenseOrCertification>
    <LicenseOrCertification>
        <Name>Microsoft Certified Solution Developer (MCSD)</Name>
        <IssuingAuthority>Microsoft Corporation</IssuingAuthority>
        <Description>The Microsoft Certified Solution Developer (MCSD) for Microsoft .NET credential is the top-level
certification for advanced developers who design and develop leading-edge enterprise solutions, using Microsoft
development tools and technologies as well as the Microsoft .NET Framework. Windows Operating System
Architecture (WOSA) I, WOSA II, Access 97, VB 5, VB 6 Desktop, VB 6 Distributed, Visual Interdev 6.0, Front
Page</Description>
        <EffectiveDate>
            <ValidFrom>
                <AnyDate>2002-09-01</AnyDate>
            </ValidFrom>
            <ValidTo>
                <AnyDate>2004-09-01</AnyDate>
            </ValidTo>
            <FirstIssuedDate>
                <YearMonth>2002-09</YearMonth>
            </FirstIssuedDate>
        </EffectiveDate>
    </LicenseOrCertification>
</LicensesAndCertifications>
```

3.8 Security Credentials

This new schema allows the exchange of current and expired security clearance information. This is particularly useful for positions where clearance is required. Candidates with previous clearance may be able to begin work sooner because a clearance renewal is a shorter process than a new clearance process. This module reuses the CredentialType.

3.8.1 Schema Diagram



3.8.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **SecurityCredentials**	SecurityCredential - CredentialType - S (1/*)	Information about one or more security clearances.
/ SecurityCredentials/ **SecurityCredential**	CredentialType - S (1/*) Name - xsd:string - S (0/1) Id - xsd:string - S (0/1) IssuingAuthority - IssuingAuthorityType - S (0/1) Description - xsd:string - S (0/1) EffectiveDate - [complexType] - S (0/1)	A collection of information with respect to a security clearance. A security clearance is technically a license, usually from a government agency, giving its holder access to secret or otherwise classified information necessary for the performance of the holder's assigned work
/ SecurityCredentials/ SecurityCredential/ **Name**	- xsd:string - S (0/1)	A descriptive identifier within a given context.
/ SecurityCredentials/ SecurityCredential/ **Id**	- xsd:string - S (0/1)	A unique identifier used to reference the entity. The Id is associated with the higher level element.
/ SecurityCredentials/ SecurityCredential/ **IssuingAuthority**	- IssuingAuthorityType - S (0/1)	Specifies the issuing authority of the associated element.
/ SecurityCredentials/ SecurityCredential/ **Description**	- xsd:string - S (0/1)	Describes the contextual information relating to a specific element.
/ SecurityCredentials/ SecurityCredential/ **EffectiveDate**	ValidFrom - FlexibleDatesType - S (0/1) ValidTo - FlexibleDatesType - S (0/1) FirstIssuedDate - FlexibleDatesType - S (0/1)	Date or time interval on or during which information or events are effective.
/ SecurityCredentials/ SecurityCredential/ EffectiveDate/ **ValidFrom**	- FlexibleDatesType - S (0/1)	The date the event begins, is active or valid.
/ SecurityCredentials/ SecurityCredential/	- FlexibleDatesType - S (0/1)	The date through which the event is active.

EffectiveDate/ **ValidTo**	(0/1)	
/ SecurityCredentials/ SecurityCredential/ EffectiveDate/ **FirstIssuedDate**	- FlexibleDatesType - S (0/1)	Specifies the date the item was first issued.

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **[IssuingAuthorityType]**	xsd:extension **base:** xsd:string countryCode - CountryCodeType -	Globally scoped data type. See element or attribute declaration for definition.
/ [IssuingAuthorityType] / **countryCode**	- CountryCodeType -	Contains the ISO 3166-1 two-character country code.

3.8.3 Example

```
<SecurityCredentials>
    <SecurityCredential>
        <Name>SECRET Security Clearance (Inactive)</Name>
        <IssuingAuthority countryCode="US"> >Department of Defence</IssuingAuthority>
        <Description/>
        <EffectiveDate>
            <ValidFrom>
                <AnyDate>1994-06-01</AnyDate>
            </ValidFrom>
            <ValidTo>
                <AnyDate>1996-06-01</AnyDate>
            </ValidTo>
            <FirstIssuedDate>
                <StringDate>3/15/1992</StringDate>
            </FirstIssuedDate>
        </EffectiveDate>
    </SecurityCredential>
    <SecurityCredential>
        <Name>Top Secret Security Clearance (Active)</Name>
        <IssuingAuthority countryCode="US">Department of Defence</IssuingAuthority>
        <Description>Currently holding a top secret security clearance for my previous job with in the Central
Intelligence Agency</Description>
        <EffectiveDate>
            <ValidFrom>
                <StringDate>4/1/1997</StringDate>
            </ValidFrom>
            <ValidTo>
                <StringDate>4/1/2003</StringDate>
            </ValidTo>
            <FirstIssuedDate>
                <StringDate>4/1/1997</StringDate>
```

```
            </FirstIssuedDate>
        </EffectiveDate>
    </SecurityCredential>
</SecurityCredentials>
```

3.9 Patent History

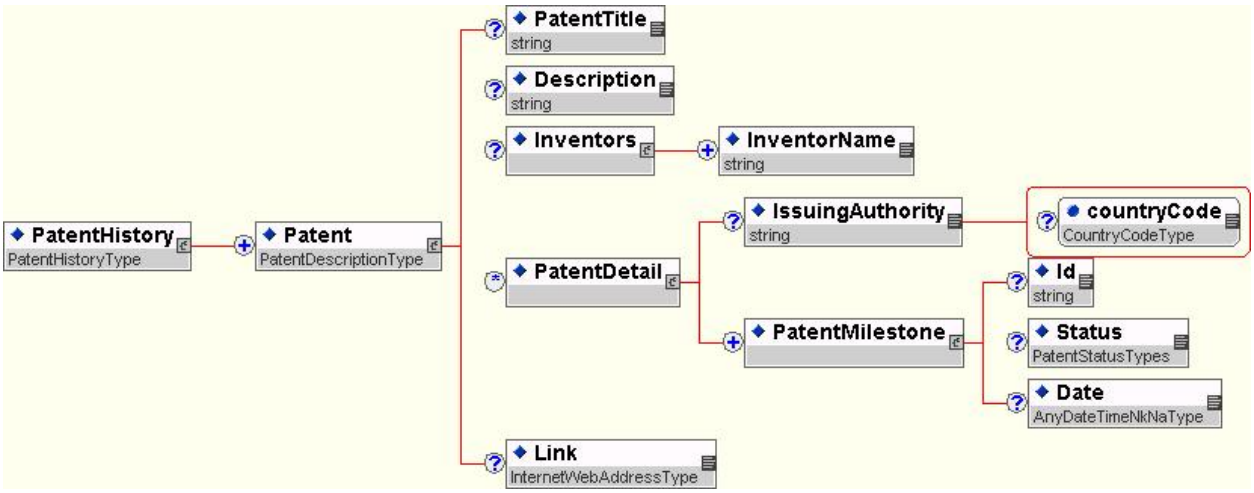
The PatentHistory schema was designed to exchange information on a professional's intellectual property development experience. A person applying for a position in a laboratory or to a software development organization may have either invented or co-invented a product or process that must be disclosed to the potential employer. Within this context, it is important for a potential employer to understand the role the candidate played as well as the status of the patent in which he or she participated. PatentHistory is of PatentHIstoryType and employs a PatentDescriptionType.

The intellectual property may be in process with no patent awarded. The PatentDetail element provides the dates at which each stage of the patent process was completed. For example, a patent that has not been awarded will still display a filing date and an application date. In this situation PatentDetail would display "Filed" with a corresponding date and an element with "Applied" and its corresponding date.

When an inventor is part of a team, he or she will include other inventors' names under Inventors where multiple instances of InventorName accommodate each person credited with developing the novel product, design or process. A candidate may have invented the product but the previous employer owns the intellectual property or the candidate may retain the intellectual property altogether. This information can be captured in the description.

The IssuingAuthority is used to communicate the entity that is reviewing the application and intellectual property to ultimately issue the patent protection. IssuingAuthority also uses HR-XML Consortium's CountryCodeType to identify the patent office or intellectual property member organization's sponsor country.

3.9.1 Schema Diagram



3.9.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **PatentHistory**	- PatentHistoryType - (1/1)	Contains information about one or more patents.
/ PatentHistory/ **Patent**	PatentDescriptionType - S (1/*) PatentTitle - xsd:string - S (0/1) Description - xsd:string - S (0/1) Inventors - [complexType] - S (0/1) PatentDetail - xsd:string - S (0/*) Link - InternetWebAddressType - S (0/1)	Contains details about a patent, including the title, description, inventor and status information.
PatentHistory/ Patent/ **PatentTitle**	- xsd:string - S (0/1)	The name of a patent.
/ PatentHistory/ Patent/ **Description**	- xsd:string - S (0/1)	Describes the contextual information relating to a specific element.
PatentHistory/ Patent/ **Inventors**	InventorName - xsd:string - S (1/*)	A listing of all the inventors who are credited with the intellectual property the patent describes.
/ PatentHistory/ Patent/ Inventors/ **InventorName**	- xsd:string - S (1/*)	The name of an inventor on the patent.
/ PatentHistory/ Patent/ **PatentDetail**	Name - xsd:string - S (1/1) IssuingAuthority - xsd:string - S (0/1) PatentMilestone - [complexType] - S (1/*)	This element specifies the status of the patent and the dates on which certain patent process milestones are reached.
/ PatentHistory/ Patent/ PatentDetail/ **IssuingAuthority**	xsd:extension **base:** xsd:string countryCode - CountryCodeType -	Specifies the issuing authority of the associated element.
/ PatentHistory/ Patent/ PatentDetail/ IssuingAuthority/ **countryCode**	- CountryCodeType	Contains the ISO 3166-1 two-character country code.

/ PatentHistory/ Patent/ PatentDetail/ **PatentMilestone**	Id - xsd:string - S (0/1) Status - PatentStatusTypes - S (0/1) Date - AnyDateTimeNkNaType - S (0/1)	This enumerated list allows for milestones to be tracked such as the filing, application and patent award dates.
/ PatentHistory/ Patent/ PatentDetail/ PatentMilestone/ **Id**	- xsd:string - S (0/1)	A unique identifier used to reference the entity. The Id is associated with the higher level element.
/ PatentHistory/ Patent/ PatentDetail/ PatentMilestone/ **Status**	- PatentStatusTypes - S (0/1)	The status of the associated item. If the status isn't specified, the implementer may place the record in whatever status seems appropriate given the context of the data.
/ PatentHistory/ Patent/ PatentDetail/ PatentMilestone/ **Date**	- AnyDateTimeNkNaType - S (0/1)	A date.
/ PatentHistory/ Patent/ **Link**	- InternetWebAddressType - S (0/1)	Contains a URL or link to an e-mail or to an identifier.

Global types (alphabetically listed)	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
[PatentHistoryType]	Patent - PatentDescriptionType - S (1/*)	Globally scoped data type. See element or attribute declaration for definition.
/ **[PatentStatusTypes]**	- [Union]: PatentStatusTypeTypes,xStringPatternExtensionType	Globally scoped data type. See element or attribute declaration for definition.
/ **[PatentStatusTypeTypes]**	xsd:restriction **base:** xsd:string [Enumerations]: PatentIssued, PatentPending, PatentFiled	Globally scoped data type. See element or attribute declaration for definition.

3.9.3 Example

```
<PatentHistory>
    <Patent>
        <PatentTitle>Optical Fiber Image Conduit and Method Using Same</PatentTitle>
        <Description>The Ultrascope is a camera accessory that attaches to existing photographic and video
cameras to access small viewing areas that are normally restricted to more expensive equipment. The present
invention employs a steering system to view hard-to-reach regions. The materials that are used for the invention
```

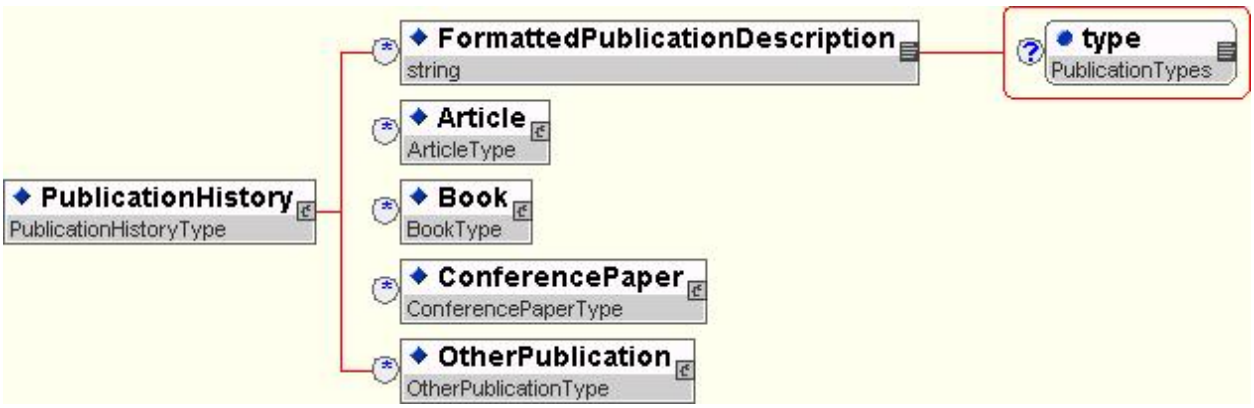
```
make the product an attractive and affordable accessory. The design makes the product simple to use, available to
the professional and novice user. Additionally, it improves visibility in small, dark areas and is made from durable
materials.</Description>
        <Inventors>
            <InventorName>Jorge O. Sanchez</InventorName>
        </Inventors>
        <PatentDetail>
            <IssuingAuthority countryCode="US">US Patent and Trademark Office</IssuingAuthority>
            <PatentMilestone>
                <Status>PatentFiled</Status>
                <Date>1996-06-01</Date>
            </PatentMilestone>
            <PatentMilestone>
                <Id>08-76853</Id>
                <Status>PatentPending</Status>
                <Date>1997-09-01</Date>
            </PatentMilestone>
            <PatentMilestone>
                <Id>5,960,145</Id>
                <Status>PatentIssued</Status>
                <Date>1999-09-01</Date>
            </PatentMilestone>
        </PatentDetail>
        <Link>http://patents.patentbase.com/ultrascope</Link>
    </Patent>
</PatentHistory>
```

3.10 Publication History

This new schema allows the exchange of information about a candidate's published works, such as a book, journal, article, or other publication. This type of information would be useful if, for example a candidate were applying for a position that required advanced writing skills or demonstrated knowledge of a particular subject area. This information could be supportive of these competencies, but if evidence of a specific level of competency is required, then the use of the Competency module is recommended.

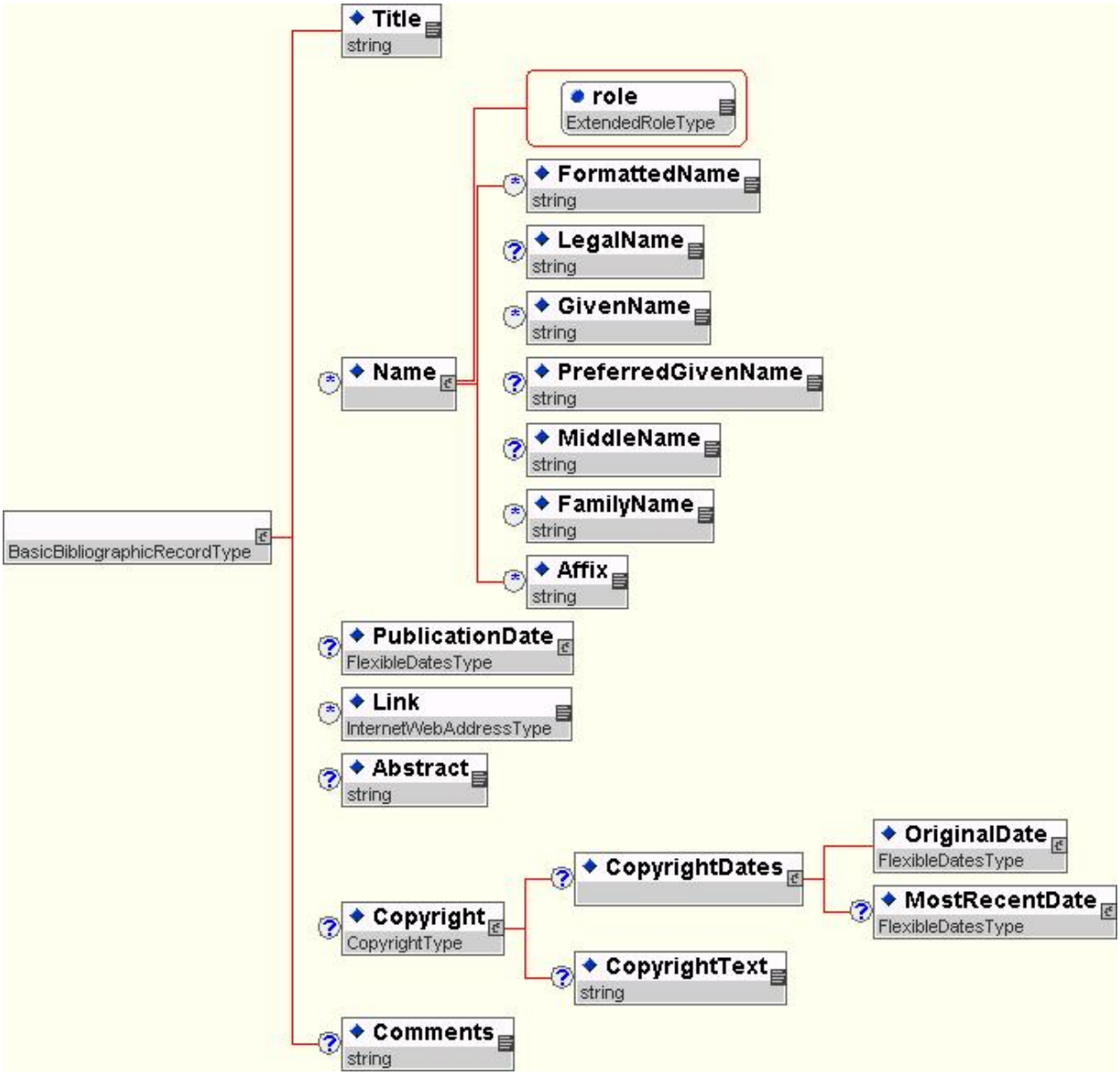
3.10.1 Schema Diagrams

PublicationHistory

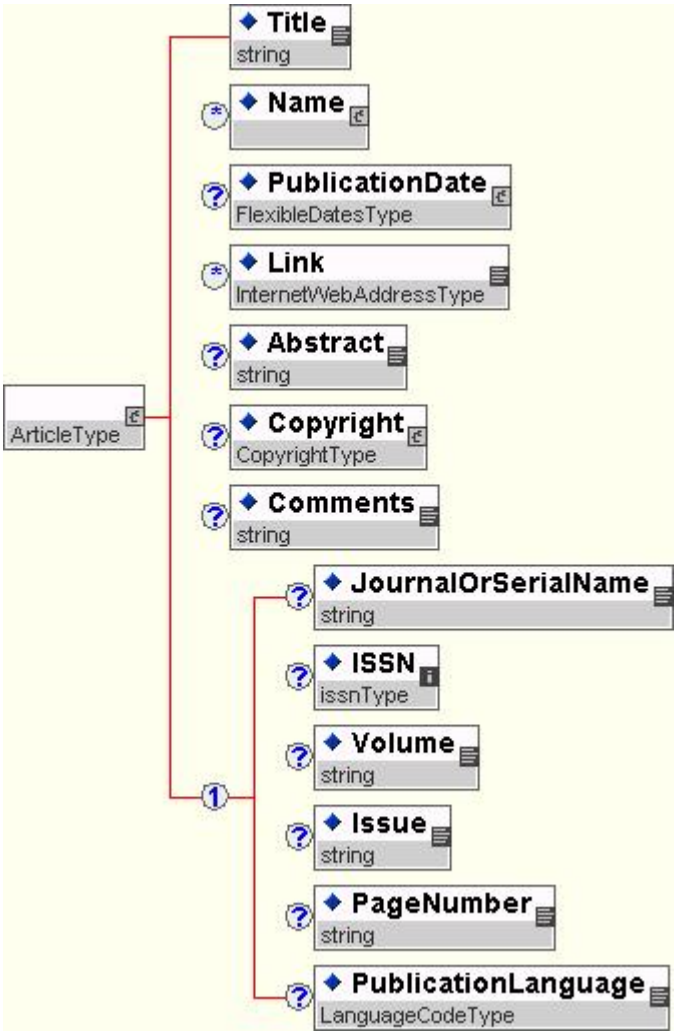


Basic Bibliographic Record

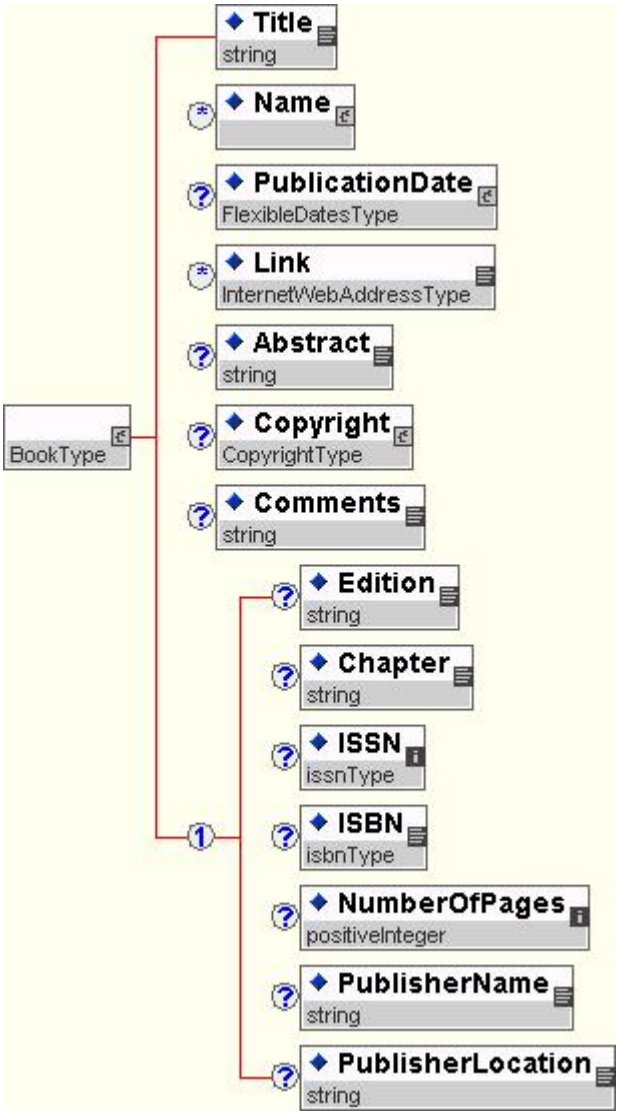
The BasicBibliographicRecord is a set of basic information common to all four publication types (Article, Book, Conference, and Other).



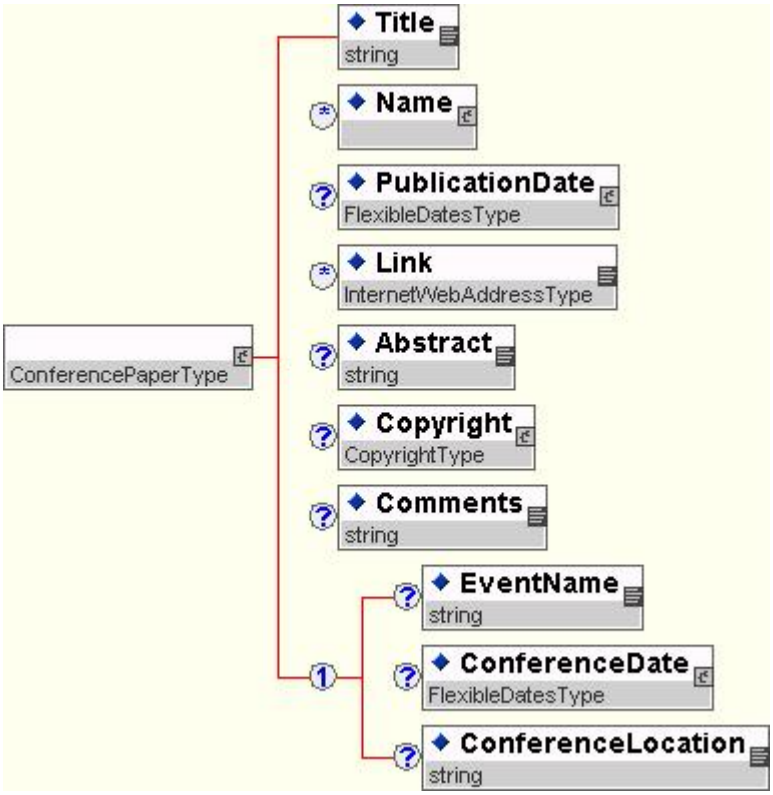
Article


Title
string
Name
PublicationDate
FlexibleDatesType
Link
InternetWebAddressType
Abstract
string
ArticleType
Copyright
CopyrightType
Comments
string
JournalOrSerialName
string
ISSN
issnType
Volume
string
Issue
string
PageNumber
string
PublicationLanguage
LanguageCodeType

Book

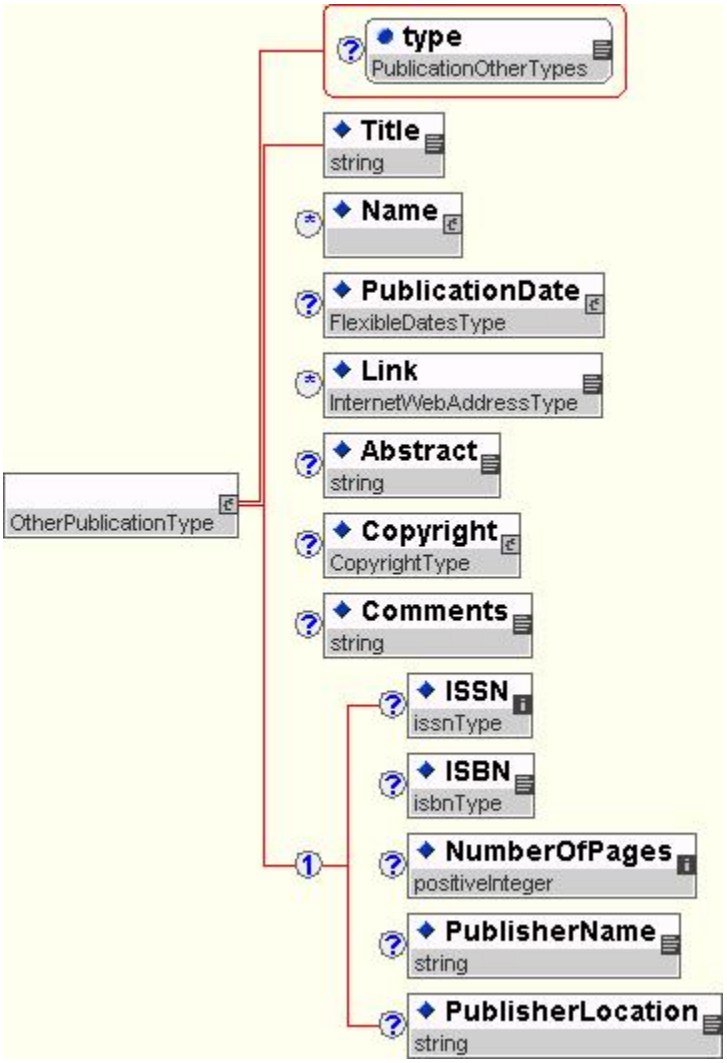

Title
string
Name
PublicationDate
FlexibleDatesType
Link
InternetWebAddressType
Abstract
string
BookType
Copyright
CopyrightType
Comments
string
Edition
string
Chapter
string
ISSN
issnType
ISBN
isbnType
NumberOfPages
positiveInteger
PublisherName
string
PublisherLocation
string

ConferencePaper



Other Publication

This is used to report any other publications not specifically defined, such as a Thesis, White Paper, Technical Document, or Study.



3.10.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	ContentModel* Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	Definition
/ **PublicationHistory**	PublicationHistoryType - (1/1) FormattedPublicationDescription -	Used in the context of a resume or CV to list articles, books, or other publications authored, co-authored, or

	xsd:string - S (0/*) Article - ArticleType - S (0/*) Book - BookType - S (0/*) ConferencePaper - ConferencePaperType - S (0/*) OtherPublication - OtherPublicationType - S (0/*)	edited by an individual.
/ PublicationHistory/ **FormattedPublicationDescription**	xsd:extension **base:** xsd:string type - PublicationTypes -	An unfielded or formatted description of a publication.
/ PublicationHistory/ FormattedPublicationDescription/ **type**	- PublicationTypes -	Further defines the associated element in the context provided.
/ PublicationHistory/ **Article**	ArticleType - S (0/*) xsd:extension **base:** BasicBibliographicRecordType JournalOrSerialName - xsd:string - S (0/1) ISSN - issnType - S (0/1) Volume - xsd:string - S (0/1) Issue - xsd:string - S (0/1) PageNumber - xsd:string - S (0/1) PublicationLanguage - LanguageCodeType - S (0/1)	A collection of information identifying an article in a journal, magazine, or other serial publication.
/ PublicationHistory/ Article/ **JournalOrSerialName**	- xsd:string - S (0/1)	The name of the journal or serial publication in which the article was published.
/ PublicationHistory/ Article/ **ISSN**	- issnType - S (0/1)	International Standard Serial Number. This is an identifier for articles and serial publications. The ISSN is defined by the ISO 3297 standard. The ISSN can be applied to series of books.
/ PublicationHistory/ Article/ **Volume**	- xsd:string - S (0/1)	Indicates the total volume of the benefit.
/ PublicationHistory/ Article/ **Issue**	- xsd:string - S (0/1)	The meaning is based on context.
/ PublicationHistory/ Article/ **PageNumber**	- xsd:string - S (0/1)	The page number or page range where an article appears.
/ PublicationHistory/ Article/ **PublicationLanguage**	- LanguageCodeType - S (0/1)	Defines the language in which the publication is written.
/ PublicationHistory/ **Book**	BookType - S (0/*) xsd:extension **base:** BasicBibliographicRecordType Edition - xsd:string - S (0/1)	Contains a collection of information to identify and describe a book or monograph.

	Chapter - xsd:string - S (0/1) ISSN - issnType - S (0/1) ISBN - isbnType - S (0/1) NumberOfPages - xsd:positiveInteger - S (0/1) PublisherName - xsd:string - S (0/1) PublisherLocation - xsd:string - S (0/1)	
/ PublicationHistory/ Book/ **Edition**	- xsd:string - S (0/1)	The edition of a book.
/ PublicationHistory/ Book/ **Chapter**	- xsd:string - S (0/1)	A chapter number or name in book or other monograph.
/ PublicationHistory/ Book/ **ISSN**	- issnType - S (0/1)	International Standard Serial Number. This is an identifier for articles and serial publications. The ISSN is defined by the ISO 3297 standard. The ISSN can be applied to series of books.
/ PublicationHistory/ Book/ **ISBN**	- isbnType - S (0/1)	International Standard Book Number. The ISBN is defined by the ISO ISO 2108 standard. The International Standard Book Number (ISBN) is a 10-digit system to identify books and monographic publications.
/ PublicationHistory/ Book/ **NumberOfPages**	- xsd:positiveInteger - S (0/1)	The number of pages in a book or other publication.
/ PublicationHistory/ Book/ **PublisherName**	- xsd:string - S (0/1)	The name of the organization publishing the book, article, or other publication.
/ PublicationHistory/ Book/ **PublisherLocation**	- xsd:string - S (0/1)	Contains the location of the publisher. This is given according to the relevant citation style as a city, region (state or province), and/or country.
/ PublicationHistory/ **ConferencePaper**	ConferencePaperType - S (0/*) xsd:extension **base:** BasicBibliographicRecordType EventName - xsd:string - S (0/1) ConferenceDate - FlexibleDatesType - S (0/1) ConferenceLocation - xsd:string - S (0/1)	Contains details about papers or presentations published as part of the proceedings of a conference, symposium, seminar, or similar event.
/ PublicationHistory/ ConferencePaper/ **EventName**	- xsd:string - S (0/1)	The name of the conference, symposium, seminar, webinar, program, or other speaking engagement.

/ PublicationHistory/ ConferencePaper/ **ConferenceDate**	- FlexibleDatesType - S (0/1)	The date or date range for conference, symposium, seminar, or similar event.
/ PublicationHistory/ ConferencePaper/ **ConferenceLocation**	- xsd:string - S (0/1)	The location of the conference, symposium, seminar, or similar event. This usually would be given as a combination of city, region (state or province), and/or country.
/ PublicationHistory/ **OtherPublication**	OtherPublicationType - S (0/*) xsd:extension **base:** BasicBibliographicRecordType ISSN - issnType - S (0/1) ISBN - isbnType - S (0/1) NumberOfPages - xsd:positiveInteger - S (0/1) PublisherName - xsd:string - S (0/1) PublisherLocation - xsd:string - S (0/1) type - PublicationOtherTypes -	A publication other than a book or article.
/ PublicationHistory/ OtherPublication/ **ISSN**	- issnType - S (0/1)	International Standard Serial Number. This is an identifier for articles and serial publications. The ISSN is defined by the ISO 3297 standard. The ISSN can be applied to series of books.
/ PublicationHistory/ OtherPublication/ **ISBN**	- isbnType - S (0/1)	International Standard Book Number. The ISBN is defined by the ISO ISO 2108 standard. The International Standard Book Number (ISBN) is a 10-digit system to identify books and monographic publications.
/ PublicationHistory/ OtherPublication/ **NumberOfPages**	- xsd:positiveInteger - S (0/1)	The number of pages in a book or other publication.
/ PublicationHistory/ OtherPublication/ **PublisherName**	- xsd:string - S (0/1)	The name of the organization publishing the book, article, or other publication.
/ PublicationHistory/ OtherPublication/ **PublisherLocation**	- xsd:string - S (0/1)	Contains the location of the publisher. This is given according to the relevant citation style as a city, region (state or province), and/or country.

Global types (alphabetically listed)	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs)	**Definition**

	Attributes	
/ **[BasicBibliographicRecordType]**	Title - xsd:string - S (1/1) Name - PersonNameType - S (0/*) PublicationDate - FlexibleDatesType - S (0/1) Link - InternetWebAddressType - S (0/*) Abstract - xsd:string - S (0/1) Copyright - CopyrightType - S (0/1) Comments - xsd:string - S (0/1)	Globally scoped data type. See element or attribute declaration for definition.
/ [BasicBibliographicRecordType]/ **Title**	- xsd:string - S (1/1)	The title of the position held by the person.
/ [BasicBibliographicRecordType]/ **Name**	xsd:extension **base:** PersonNameType role - ExtendedRoleType - required	A descriptive identifier within a given context.
/ [BasicBibliographicRecordType]/ Name/ **role**	- ExtendedRoleType -	A function of a person or entity within a given context.
/ [BasicBibliographicRecordType]/ **PublicationDate**	- FlexibleDatesType - S (0/1)	Date of publication.
/ [BasicBibliographicRecordType]/ **Link**	- InternetWebAddressType - S (0/*)	Contains a URL or link to an e-mail or to an identifier.
/ [BasicBibliographicRecordType]/ **Abstract**	- xsd:string - S (0/1)	A brief summary of the related publication.
/ [BasicBibliographicRecordType]/ **Copyright**	CopyrightType - S (0/1) CopyrightDates - [complexType] - S (0/1) CopyrightText - xsd:string - S (0/1)	Contains dates and copyright text.
/ [BasicBibliographicRecordType]/ Copyright/ **CopyrightDates**	OriginalDate - FlexibleDatesType - S (1/1) MostRecentDate - FlexibleDatesType - S (0/1)	Contains the original and most recent copyright dates.
/ [BasicBibliographicRecordType]/ Copyright/ CopyrightDates/ **OriginalDate**	- FlexibleDatesType - S (1/1)	Contains the date the copyright was originally issued.
/ [BasicBibliographicRecordType]/ Copyright/ CopyrightDates/ **MostRecentDate**	- FlexibleDatesType - S (0/1)	Contains the date the copyright was most recently issued or renewed.
/ [BasicBibliographicRecordType]/ Copyright/ **CopyrightText**	- xsd:string - S (0/1)	Usually the name of the copyright holder and possibly qualifying language ""All Rights Reserved"".

/ [BasicBibliographicRecordType]/ **Comments**	- xsd:string - S (0/1)	Defines unstructured data for a group of elements as in Comments or Description.
/ **[ExtendedRoleType]**	- [Union]: xStringPatternExtensionType,RoleType	Globally scoped data type. See element or attribute declaration for definition.
/ **[PublicationOtherTypes]**	- [Union]: xStringPatternExtensionType,PublicationOtherTypeTypes	Globally scoped data type. See element or attribute declaration for definition.
/ **[PublicationOtherTypeTypes]**	xsd:restriction **base:** xsd:string [Enumerations]: Thesis, Whitepaper, Report, TechnicalDocumentation, Study, Manual, ResearchPaper	Globally scoped data type. See element or attribute declaration for definition.
/ **[PublicationTypes]**	- [Union]: PublicationTypeTypes,xStringPatternExtensionType	Globally scoped data type. See element or attribute declaration for definition.
/ **[PublicationTypeTypes]**	xsd:restriction **base:** xsd:string [Enumerations]: Article, Book, Conference, Other	Globally scoped data type. See element or attribute declaration for definition.
/ **[RoleType]**	xsd:restriction **base:** xsd:string [Enumerations]: author, editor, illustrator, contributor	Globally scoped data type. See element or attribute declaration for definition.

3.10.3 Example

```
<PublicationHistory>
    <Article>
        <Title>Designing Interfaces for Youth Services Information Management.</Title>
        <Name role="author">
            <FormattedName>John A. Example</FormattedName>
        </Name>
        <PublicationDate>
            <YearMonth>1996-06</YearMonth>
        </PublicationDate>
        <JournalOrSerialName>1996 Human-Computer Interaction Laboratory Video Reports, K. Pleasant, Ed.,
</JournalOrSerialName>
        <Volume>vol. 2</Volume>
        <Issue>no. 3</Issue>
        <PageNumber>pp.319-329</PageNumber>
        <PublicationLanguage>EN</PublicationLanguage>
    </Article>
    <Book>
        <Title>XML in a Seashell</Title>
        <Name role="author">
```

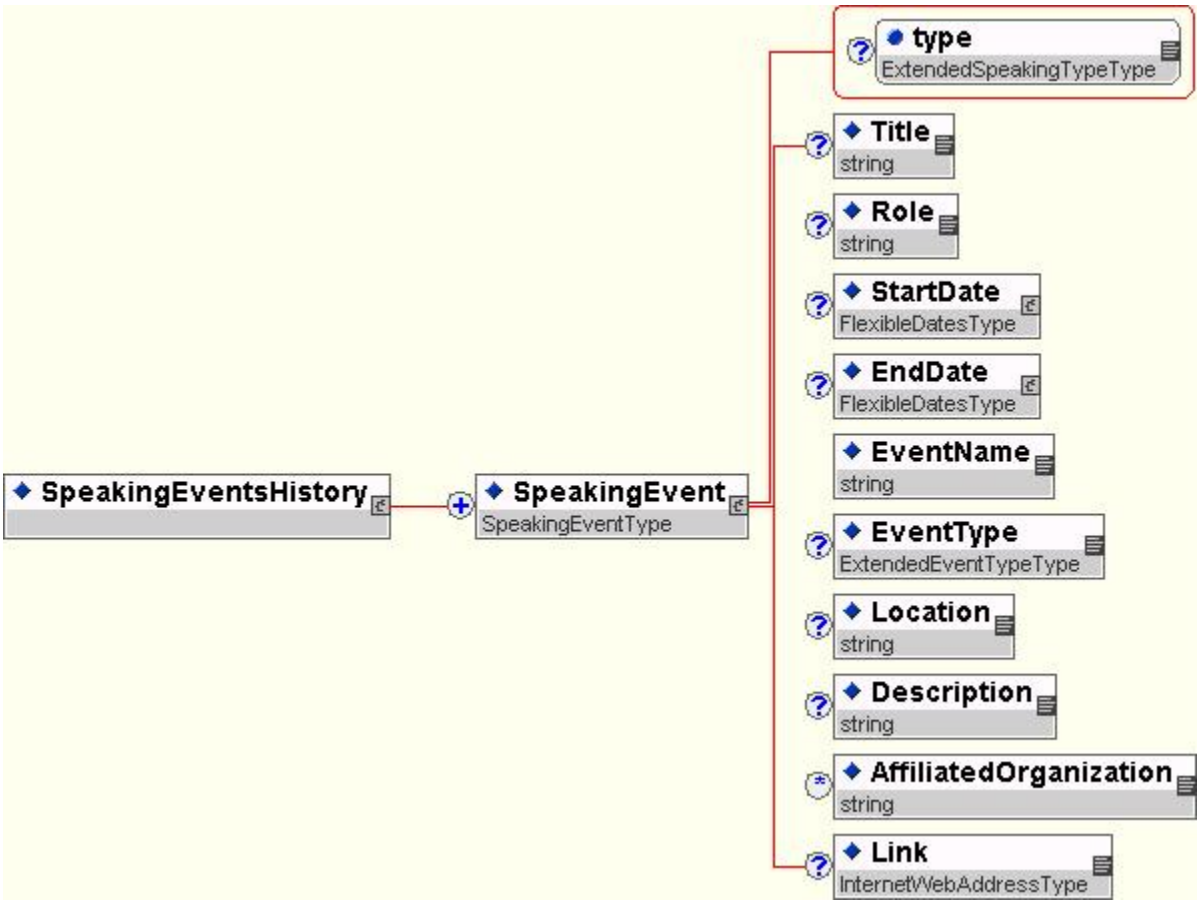
```
            <FormattedName>John A. Example</FormattedName>
        </Name>
        <PublicationDate>
            <YearMonth>2001-02</YearMonth>
        </PublicationDate>
        <Abstract>A very readable introduction to XML for readers with existing knowledge of markup and Web
technologies. </Abstract>
        <Copyright>
            <CopyrightDates>
                <OriginalDate>
                    <Year>2001</Year>
                </OriginalDate>
            </CopyrightDates>
            <CopyrightText>Copyright 2nd edition</CopyrightText>
        </Copyright>
        <Edition>2nd Edition</Edition>
        <ISBN>0596000222</ISBN>
        <PublisherName>O'Malley Associates</PublisherName>
        <PublisherLocation> Garden City, NY, US     </PublisherLocation>
    </Book>
    <ConferencePaper>
        <Title>Trends in Employee Benefit Offerings</Title>
        <Name role="author">
            <FormattedName>Debra J. Cohen</FormattedName>
        </Name>
        <EventName>SHRM 55th Annual Conference and Exposition</EventName>
        <ConferenceDate>
            <AnyDate>2003-06-10</AnyDate>
        </ConferenceDate>
        <ConferenceLocation>Orlando, FL</ConferenceLocation>
    </ConferencePaper>
    <OtherPublication type="x:Software">
        <Title>UCLA Tree-Repeater-Interconnect-Optimization (TRIO) Package</Title>
        <Name role="x:developer">
            <FormattedName>John A. Example</FormattedName>
        </Name>
        <PublicationDate>
            <Year>2002</Year>
        </PublicationDate>
        <Link>http://ballade.cs.ucla.edu/~cong/slides/vlsi99.pdf</Link>
    </OtherPublication>
    <OtherPublication type="Thesis">
        <Title>Interconnect Synthesis and Planning for High-Performance IC Designs</Title>
        <Name role="author">
            <FormattedName>John A. Example</FormattedName>
        </Name>
        <PublicationDate>
            <Year>2000</Year>
        </PublicationDate>
        <Comments>Ph. D, University of California</Comments>
        <NumberOfPages>158</NumberOfPages>
        <PublisherLocation>Los Angeles, CA, US     </PublisherLocation>
    </OtherPublication>
</PublicationHistory>
```

3.11 Speaking Events History

Speaking event information, such as a speech, presentation, demonstration, interview, debate or panel discussion, may be exchanged using this new schema module. It includes elements such as the type of event (i.e. convention, rally, conference, sales meeting, television show, radio show, web-based), the role the person performed during the event, the venue where the event took place, the subject matter discussed, and other related information.

This type of information would be important to a hiring company if the candidate was being considered for a position that required them to speak publicly in the course of their work activities. Like all HR-XML schemas, SpeakingEvents is flexible and extensible, so it would even be possible to convey some theatrical experience if that were the type of position being sought.

3.11.1 Schema Diagram



3.11.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following	ContentModel* Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs)	Definition

table.]	Attributes	
/ **SpeakingEventsHistory**	SpeakingEvent - SpeakingEventType - S (1/*)	Contains information about a set of Speaking Event components.
/ SpeakingEventsHistory/ **SpeakingEvent**	SpeakingEventType - S (1/*) type - ExtendedSpeakingTypeType - Title - xsd:string - S (0/1) Role - xsd:string - S (0/1) StartDate - FlexibleDatesType - S (0/1) EndDate - FlexibleDatesType - S (0/1) EventName - xsd:string - S (1/1) EventType - ExtendedEventTypeType - S (0/1) Location - xsd:string - S (0/1) Description - xsd:string - S (0/1) AffiliatedOrganization - xsd:string - S (0/*) Link - InternetWebAddressType - S (0/1)	A record of speaking or presentation experience such as might be included on a resume.
/ [SpeakingEventType] / **type**	- ExtendedSpeakingTypeType -	Further defines the associated element in the context provided.
/ SpeakingEventsHistory/ SpeakingEvent/ **Title**	- xsd:string - S (0/1)	The name or title within a given context.
/ SpeakingEventsHistory/ SpeakingEvent/ **Role**	- xsd:string - S (0/1)	A function of a person or entity within a given context.
/ SpeakingEventsHistory/ SpeakingEvent/ **StartDate**	- FlexibleDatesType - S (0/1)	Contains the (inclusive) date, period, or interval the event becomes active or begins.
/ SpeakingEventsHistory/ SpeakingEvent/ **EndDate**	- FlexibleDatesType - S (0/1)	Contains the (inclusive) date, period, or interval the event becomes inactive or ends.
/ SpeakingEventsHistory/ SpeakingEvent/ **EventName**	- xsd:string - S (1/1)	The name of the conference, symposium, seminar, webinar, program, or other speaking engagement.
/ SpeakingEventsHistory/ SpeakingEvent/ **EventType**	- ExtendedEventTypeType - S (0/1)	Describes the type of event where the person spoke.
/ SpeakingEventsHistory/ SpeakingEvent/ **Location**	- xsd:string - S (0/1)	Describes the physical location within the given context.
/ SpeakingEventsHistory/ SpeakingEvent/ **[illegible]**	- xsd:string - S (0/1)	Describes the contextual information relating to a specific element.

Description		
/ SpeakingEventsHistory/ SpeakingEvent/ **AffiliatedOrganization**	- xsd:string - S (0/*)	The name of the sponsoring or otherwise affiliated organization.
/ SpeakingEventsHistory/ SpeakingEvent/ **Link**	- InternetWebAddressType - S (0/1)	Contains a URL or link to an e-mail or to an identifier to materials related to the SpeakingEvent, such as a copy of a presentation or speech.

Global types (alphabetically listed)	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **[EventTypeType]**	xsd:restriction **base:** xsd:string [Enumerations]: convention, rally, conference, sales meeting, television show, radio show, web-based	Globally scoped data type. See element or attribute declaration for definition.
/ **[ExtendedEventTypeType]**	- [Union]: EventTypeType,xStringPatternExtensionType	Globally scoped data type. See element or attribute declaration for definition.
/ **[ExtendedSpeakingTypeType]**	xsd:restriction **base:** - [Union]: SpeakingTypeType,xStringPatternExtensionType	Globally scoped data type. See element or attribute declaration for definition.
/ **[SpeakingTypeType]**	xsd:restriction **base:** xsd:string [Enumerations]: speech, presentation, demonstration, interview, debate, panel discussion	Globally scoped data type. See element or attribute declaration for definition.

3.11.3 Example

```
<SpeakingEventsHistory>
    <SpeakingEvent type="x:reviewer">
        <StartDate>
            <Year>1997</Year>
        </StartDate>
        <EventName>ACM/IEEE Design Automation Conference (DAC)</EventName>
```

```
        <EventType>conference</EventType>
    </SpeakingEvent>
    <SpeakingEvent type="panel discussion">
        <Title>Palaver Tree Online: A Community of Oral History</Title>
        <StartDate>
            <AnyDate>2000-06-15</AnyDate>
        </StartDate>
        <EventName> International Conference of the Learning Sciences 2000</EventName>
        <EventType>conference</EventType>
        <Location>Ann Arbor, MI</Location>
        <Link>http://www.umich.edu/~icls/</Link>
    </SpeakingEvent>
    <SpeakingEvent type="x:invited guest speaker">
        <Title>Community Updated</Title>
        <StartDate>
            <AnyDate>1999-03-07</AnyDate>
        </StartDate>
        <EventName> Cleveland Talk Radio 1490am</EventName>
        <EventType>radio show</EventType>
    </SpeakingEvent>
</SpeakingEventsHistory>
```

3.12 Qualifications

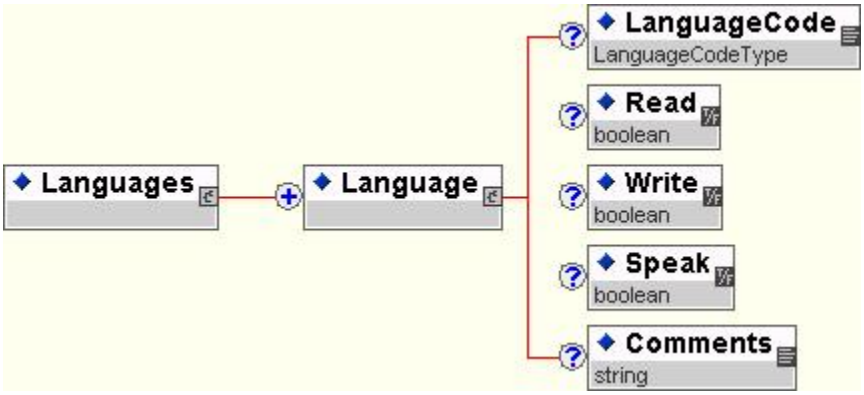
This module allows the exchange of qualifications or competencies that are not already called out in other Resume modules (for example, computer skills or the ability to interact with the public), or for Resume module data that requires evidence of the qualification. Qualifications is a repeatable element that contains a description element and an “include” of the Competency 1.1 specification. Competency is recursive, so it is possible to capture qualifications in a hierarchical structure. For example, a candidate may want to present their office skills in different categories such as Business Applications/Word Processing/MS Word XP and Business Applications/Presentation Graphics/MS PowerPoint 2000.

The Competency 1.1 specification detail can be found by following the link in Appendix B.

3.13 Language

This schema allows for the exchange of information about languages spoken, read, and written by the individual. This has been added to the main structured resume section rather than the Qualifications element to convey general information about a person’s ability to communicate in certain language(s) rather than listing it as a measured competency in response to a particular position requirement. For example, the repeatable Language element might be used to say simply that this candidate can speak French and German. If it is necessary to say how proficient the candidate is in each language, or offer evidence of this ability, then it is recommended that the information be passed using the Qualification/Competency structure.

3.13.1 Schema Diagram



3.13.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **Languages**	Language - [see include/import] - S (1/*)	Contains information about one or more languages.
/ **Language**	LanguageCode - [see include/import] - S (0/1) Read - xsd: boolean - S (0/1) Write - xsd: boolean - S (0/1) Speak - xsd: boolean - S (0/1) Comments - xsd: string - S (0/1)	Contains information about a single language. This may include whether a person can speak, read, or write in the specified language, but does not indicate proficiency.
/ Language/ **Read**	- Xsd: boolean - S (0/1)	True/False. Defines whether the person can read the associated language.
/ Language/ **Write**	- Xsd: boolean - S (0/1)	True/False. Defines whether the person can write the associated language.
/ Language/ **Speak**	- xsd: boolean - S (0/1)	True/False. Defines whether the person can speak the associated language.
/ Language/ **Comments**	- xsd:string - S (0/1)	Defines unstructured data for a group of elements.

3.13.3 Example

```
<StructuredXMLResume>
    <Languages>
        <Language>
            <LanguageCode>EN</LanguageCode>
            <Read>true</Read>
            <Write>true</Write>
            <Speak>true</Speak>
        </Language>
        <Language>
            <LanguageCode>FR</LanguageCode>
            <Read>false</Read>
            <Write>false</Write>
            <Speak>true</Speak>
        </Language>
    </Languages>
</StructuredXMLResume>
```

3.14 Achievements

This schema allows the exchange of honors and awards information. The recognition could be professional (ie: Sales or Customer Service Performance), Academic (ie. Scholarship or Dean's list), or even personal (ie: Citizenship/Community Involvement). The Achievements module is included from the SharedStaffingModules schema.

The IssuingAuthority is used to communicate the entity that awarded or recognized the achievement. This application does not specifically indicate a country code, since the achievement is not necessarily recogonized by country. If the country is relevant, it may be included in the IssuingAuthority string.

3.14.1 Schema Diagram

3.14.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **Achievements**	Achievement - AchievementType - S (1/*)	Contains information about one or more achievements or awards.

Achievements/ **Achievement**	- AchievementType - S (1/*)	Describes a single achievement or award received.
/ Achievements/ Achievement/ **Date**	- FlexibleDatesType - S (0/1)	A date.
/ Achievements/ Achievement/ **Description**	- LanguageDependentTextType - S (0/1)	Describes the contextual information relating to a specific element.
/ Achievements/ Achievement/ **IssuingAuthority**	- xsd:string - S (0/1)	Specifies the issuing authority of the associated element.

3.14.3 Example

```
<Achievements>
    <Achievement>
        <Date>
            <StringDate>2001-2002</StringDate>
        </Date>
        <Description>Graduate Fellowship</Description>
        <IssuingAuthority>Intel Foundation</IssuingAuthority>
    </Achievement>
</Achievements>
```

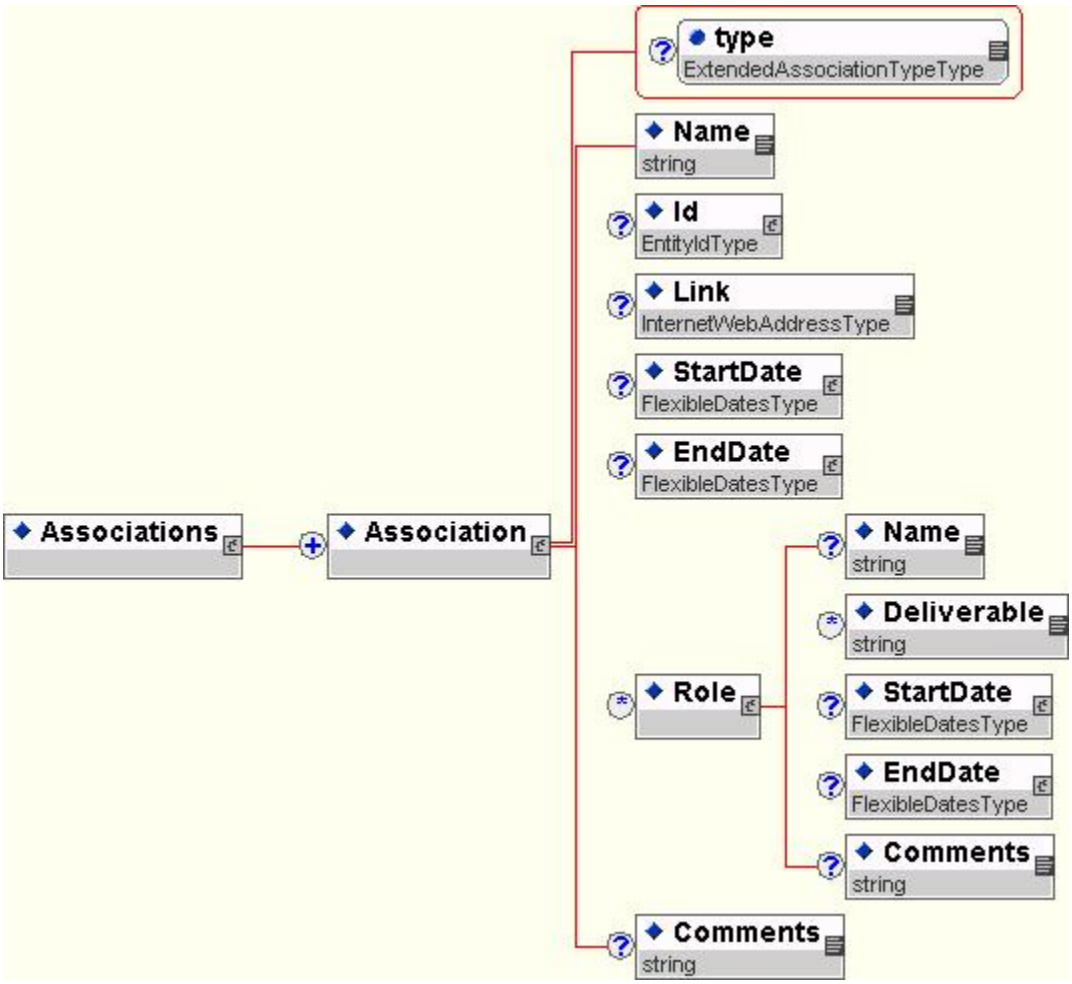
3.15 Associations

This schema allows the exchange of information about associations to which an individual belongs, including, but not limited to professional, social, community, non-profit, religious and political organizations.

A person may have several roles while active with an association. For example, the person may be the chair of one committee, and a participant of another committee. This structure allows for the description of multiple roles as well as providing the information specific to the association.

This schema is included from the SharedStaffingModules schema. The ProfessionalAssociation element is deprecated in favor of this newer schema.

3.15.1 Schema Diagram



3.15.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **Associations**	Association - AssociationType - S (1/*)	Contains information about one or more associations.
/ Associations/ **Association**	xsd:extension **base:** AssociationType type - ExtendedAssociationTypeType -	Contains information about an individual's participation in a professional or industry group or association.
/ Associations/ Association/	- ExtendedAssociationTypeType -	Further defines the associated element in the

type		context provided.

Global types (alphabetically listed)	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **[AssociationType]**	Name - xsd:string - S (1/1) Id - EntityIdType - S (0/1) Link - InternetWebAddressType - S (0/1) StartDate - FlexibleDatesType - S (0/1) EndDate - FlexibleDatesType - S (0/1) Role - [complexType] - S (0/*) Comments - xsd:string - S (0/1)	Globally scoped data type. See element or attribute declaration for definition.
/ [AssociationType]/ **Name**	- xsd:string - S (1/1)	A descriptive identifier within a given context.
/ [AssociationType]/ **Id**	- EntityIdType - S (0/1)	A unique identifier used to reference the entity. The Id is associated with the higher-level element.
/ [AssociationType]/ **Link**	- InternetWebAddressType - S (0/1)	Contains a URL or link to an e-mail or to an identifier.
/ [AssociationType]/ **StartDate**	- FlexibleDatesType - S (0/1)	Contains the (inclusive) date, period, or interval the event becomes active or begins. Dates are represented in accordance with ISO 8601.
/ [AssociationType]/ **EndDate**	- FlexibleDatesType - S (0/1)	Contains the (inclusive) date, period, or interval the event becomes inactive or ends. Dates are represented in accordance with ISO 8601.
/ [AssociationType]/ **Role**	Name - xsd:string - S (0/1) Deliverable - xsd:string - S (0/*) StartDate - FlexibleDatesType - S (0/1) EndDate - FlexibleDatesType - S (0/1) Comments - xsd:string - S (0/1)	A function of a person or entity within a given context.
/ [AssociationType]/ Role/ **Name**	- xsd:string - S (0/1)	A descriptive identifier within a given context.
/ [AssociationType]/ Role/ **Deliverable**	- xsd:string - S (0/*)	An output or result of an activity.
/ [AssociationType]/ Role/ **StartDate**	- FlexibleDatesType - S (0/1)	Contains the (inclusive) date, period, or interval the event becomes active or begins. Dates are represented in

StartDate		accordance with ISO 8601
/ [AssociationType]/ Role/ **EndDate**	- FlexibleDatesType - S (0/1)	Contains the (inclusive) date, period, or interval the event becomes inactive or ends. Dates are represented in accordance with ISO 8601
/ [AssociationType]/ Role/ **Comments**	- xsd:string - S (0/1)	Describes the contextual information relating to a group of elements.
/ [AssociationType]/ **Comments**	- xsd:string - S (0/1)	Describes the contextual information relating to a group of elements.
/ **[AssociationTypeType]**	xsd:restriction **base:** xsd:string [Enumerations]: Professional, Social, Community, Non-Profit, Religious, Political	Globally scoped data type. See element or attribute declaration for definition.

3.15.3 Example

```
<Associations>
    <Association type="Professional">
        <Name>HR-XML Consortium</Name>
        <Link>www.hr-xml.org</Link>
        <StartDate>
                <YearMonth>2000-01</YearMonth>
        </StartDate>
        <Role>
            <Name>Recruiting and Staffing Project Lead</Name>
            <Deliverable>Resume 2.0 Specification</Deliverable>
            <StartDate>
                <YearMonth>2002-03</YearMonth>
            </StartDate>
            <EndDate>
                <YearMonth>2003-07</YearMonth>
            </EndDate>
        </Role>
        <Role>
            <Name>Cross Process Object team member</Name>
            <StartDate>
                <YearMonth>2001-05</YearMonth>
            </StartDate>
            <Comments>Review other workgroup specifications</Comments>
        </Role>
        <Comments>Membership through current employer.</Comments>
    </Association>
</Associations>
```

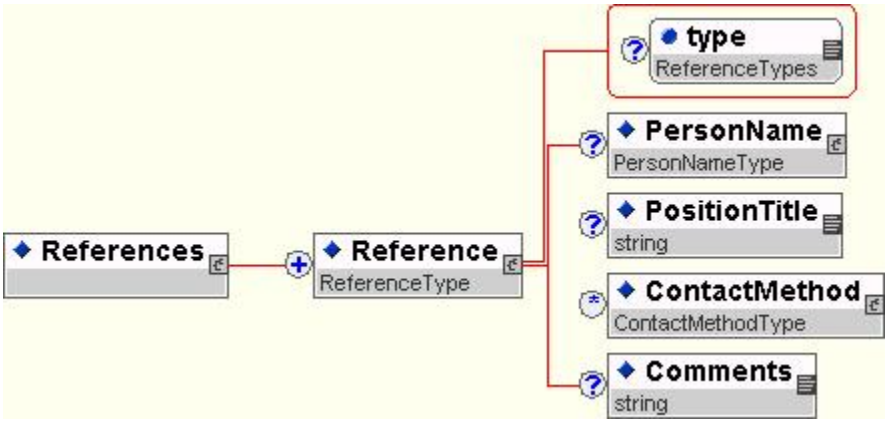
3.16 References

This schema allows the exchange of contact information for professional and personal references, and for verification of employment. It is included from the SharedStaffingModules schema.

In some countries, Referee describes the contact information for a personal or professional recommendation, whereas, Reference is relevant to employment verification. This schema is generic enough to handle both purposes.

Note that EmploymentHistory contains contact verification information for specific positions. However, this was intended for use at a “screening” stage. References within the resume allow a staffing agency, recruiter, or hiring company to verify employment and references during the prehire stage. See Implementation Guidelines for further information.

3.16.1 Schema Diagram



3.16.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **References**	Reference - ReferenceType - S (1/*)	Contains information about one or more references.
/ References/ **Reference**	ReferenceType - S (1/*) type - ReferenceTypes - PersonName - PersonNameType - S (0/1) PositionTitle - xsd:string - S (0/1) ContactMethod - ContactMethodType - S (0/*) Comments - xsd:string - S (0/1)	Contains information about a single reference. This may be for verification of a job or to provide contact information.
/ [ReferenceType] / **type**	- ReferenceTypes -	Further defines the associated element in the context provided.

/ References/ Reference/ **PersonName**	- PersonNameType - S (0/1)	The name of a person.
/ References/ Reference/ **PositionTitle**	- xsd:string - S (0/1)	A short phrase describing the position the way it would be listed on a business card or in a company directory.
/ References/ Reference/ **ContactMethod**	- ContactMethodType - S (0/*)	Defines the methods of contacting a person or organizations.
/ References/ Reference/ **Comments**	- xsd:string - S (0/1)	Defines unstructured data for a group of elements.

Global types (alphabetically listed)	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **[ReferenceTypes]**	- [Union]: BasicReferenceType,xStringPatternExtensionType	Globally scoped data type. See element or attribute declaration for definition.
/ **[BasicReferenceType]**	xsd:restriction **base:** xsd:string [Enumerations]: Professional, Personal, Verification	Globally scoped data type. See element or attribute declaration for definition.

3.16.3 Example

```
<References>
    <Reference type="Professional">
        <PersonName>
            <FormattedName>Dr. Amy R. Breck</FormattedName>
        </PersonName>
        <PositionTitle>Advisor</PositionTitle>
        <ContactMethod>
            <Telephone>
                <FormattedNumber>1 404 1224567</FormattedNumber>
            </Telephone>
            <InternetEmailAddress>arbreck@cc.gatech.edu</InternetEmailAddress>
            <PostalAddress>
                <CountryCode>US</CountryCode>
                <PostalCode>12345-1234</PostalCode>
                <Region>GA</Region>
                <Municipality>Atlantla</Municipality>
            </PostalAddress>
        </ContactMethod>
        <Comments>College of Computing, Georgia Institute of Technology</Comments>
    </Reference>
</References>
```

3.17 Resume Additional Item

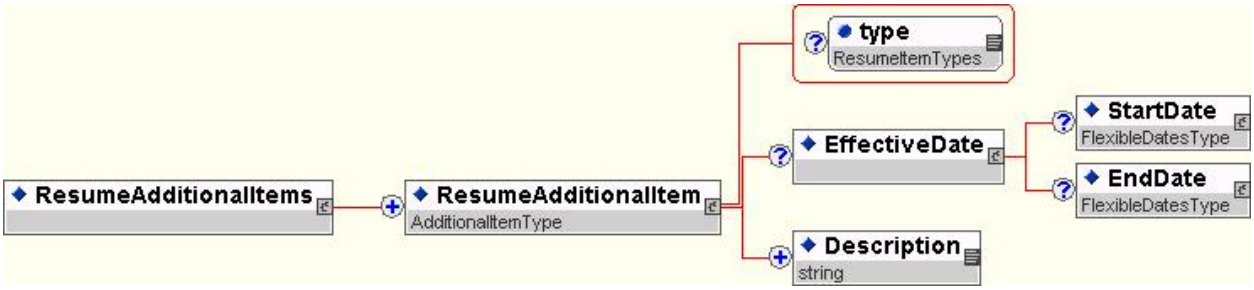
Often in the context of submitting a resume, a candidate will have to present items that are not covered in typical professional contexts. The purpose of ResumeAdditionalItem is to capture resume content that would normally fall outside the scope of traditional historical and professional information. For example, a potential candidate may have a hobby such as rock climbing or technical SCUBA diving. While these activities may not be specific requirements for a position, they can be useful in adding depth to a hiring company's overall understanding of the candidate. For example, someone with a rock climbing hobby might be perceived as someone comfortable with taking risks, or someone who volunteers at a hospital might be perceived as compassionate and/or service oriented.

Other information that ResumeAdditioinalItem might accommodate is Demographic data, such as age and birth date, that are more commonly used in European countries.

ResumeAdditionalItem has a type attribute with a list of common types of "avocational" items. This extensible list includes Activities, Interests, Personal, Community, Hobbies, and Volunteer*.

*There are guidelines for the use of the Volunteer enumeration in the implementation section of this document

3.17.1 Schema Diagram



3.17.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **ResumeAdditionalItems**	ResumeAdditionalItem - [see include/import] - S (1/*)	Contains one or more flexible, structured containers to accommodate a wide variety of information types that might be included on a resume.
/ **ResumeAdditionalItem**	AdditionalItemType - (1/1) type - ResumeItemTypes - optional	A single, flexible, structured container to accommodate a wide variety of information types that might be included on a resume.

	EffectiveDate - [complexType] - S (0/1) Description - xsd:string - S (1/*)	
/ [AdditionalItemType] / **type**	- ResumeItemTypes -	Further defines the associated element in the context provided.
/ ResumeAdditionalItem/ **EffectiveDate**	StartDate - FlexibleDatesType - S (0/1) EndDate - FlexibleDatesType - S (0/1)	Date or time interval on or during which information or events are effective.
/ ResumeAdditionalItem/ EffectiveDate/ **StartDate**	- FlexibleDatesType - S (0/1)	Contains the (inclusive) date, period, or interval the event becomes active or begins.
/ ResumeAdditionalItem/ EffectiveDate/ **EndDate**	- FlexibleDatesType - S (0/1)	Contains the (inclusive) date, period, or interval the event becomes inactive or ends.
/ ResumeAdditionalItem/ **Description**	- xsd:string - S (1/*)	Describes the contextual information relating to a specific element.

Global types (alphabetically listed)	**ContentModel*** Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	**Definition**
/ **[ResumeItemTypes]**	- [Union]: xStringPatternExtensionType,ResumeItemTypeTypes	Globally scoped data type. See element or attribute declaration for definition.
/ **[ResumeItemTypeTypes]**	xsd:restriction **base:** xsd:string [Enumerations]: Activities, Interests, Personal, Community, Hobbies, Volunteer	Globally scoped data type. See element or attribute declaration for definition.

3.17.3 Example

```
<Resume>
    <StructuredXMLResume>
        <ResumeAdditionalItems>
            <ResumeAdditionalItem type="Personal">
                <Description>Married with 4 children</Description>
            </ResumeAdditionalItem>
            <ResumeAdditionalItem type="Volunteer">
                <EffectiveDate>
                    <StartDate>
                        <Year>1999</Year>
                    </StartDate>
```

```
                <EndDate>
                    <Year>2001</Year>
                </EndDate>
            </EffectiveDate>
            <Description>Delivered Meals on Wheels to homebound elderly</Description>
        </ResumeAdditionalItem>
        <ResumeAdditionalItem type="Hobbies">
            <EffectiveDate>
                <StartDate>
                    <Year>2000</Year>
                </StartDate>
            </EffectiveDate>
            <Description>Rock Climbing</Description>
        </ResumeAdditionalItem>
    </ResumeAdditionalItems>
  </StructuredXMLResume>
</Resume>
```

3.18 Supporting Materials

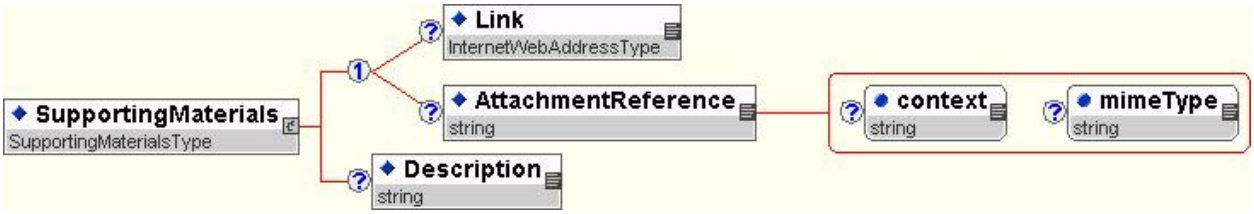
This schema provides for the exchange of supporting information. For example, a letter of recommendation, cover letter, or link to a resume web page. It also allows for a pointer to an attachment.

Supporting materials may be used within the StructuredXMLResume section for any supporting documents directly related to the structured resume. For example, transcripts from a university specified in the education history section.

Supporting Materials within the NonXMLResume section may be used for more general attachments such as a photograph, cover letter, link to web-based resume, or a pdf resume.

The schema is included from the SharedStaffingModules schema. This structure will replace deprecated LinkToResume.

3.18.1 Schema Diagram



3.18.2 Element and Attribute Definitions

Elements and Attributes [Global types listed alphabetically in following table.]	ContentModel* Data type Occurrence: Sequence | Choice | All (minOccurs/maxOccurs) Attributes	Definition
/	SupportingMaterialsType -	Allows the exchange of information that might be included

SupportingMaterials	(1/1) Link - InternetWebAddressType - C (0/1) AttachmentReference - xsd:string - C (0/1) Description - xsd:string - S (0/1)	or associated with a resume or CV.
/ SupportingMaterials/ **Link**	- InternetWebAddressType - C (0/1)	Contains a URL or link to an e-mail or to an identifier.
/ SupportingMaterials/ **AttachmentReference**	xsd:extension **base:** xsd:string context - xsd:string - mimeType - xsd:string -	Describes the attachment of related documents.
/ SupportingMaterials/ AttachmentReference/ **context**	- xsd:string -	X:path specifying the node in the XML document that this material supports. Attachment references and X:path refereces should be made at 'deploy time' . They may not have meaning once received and processed or during build time.
/ SupportingMaterials/ AttachmentReference/ **mimeType**	- xsd:string -	Indicates the mime (type and subtype) of the attached document. If there is more than one attachment, multiple SupportingMaterials elements should be used. MIME (Multi-Purpose Internet Mail Extensions) is an extension of the original Internet e-mail protocol that lets people use the protocol to exchange different kinds of data files on the Internet.
/ SupportingMaterials/ **Description**	- xsd:string - S (0/1)	Describes the contextual information relating to a specific element.

3.18.3 Example

The first two examples show how supporting materials may be used within the non-xml section.

```
<Resume>
    <NonXMLResume>
        <SupportingMaterials>
            <AttachmentReference
mimeType="application/msword">John_A_Example_MSWordResume.doc</AttachmentReference>
            <Description>Resume of John A. Example formatted in Microsoft Word</Description>
        </SupportingMaterials>
    </NonXMLResume>
</Resume>

<Resume>
    <NonXMLResume>
        <SupportingMaterials>
            <AttachmentReference mimeType="image/jpeg">Rockclimbing.jpg</AttachmentReference>
            <Description>Picture of me climbing one of the Colorado 14'ers.</Description>
        </SupportingMaterials>
    </NonXMLResume>
</Resume>
```

This example shows how the schema is used to provide supporting materials for structured data.

```
<Resume>
    <StructuredXMLResume>
        <EducationHistory>
            <SchoolOrInstitution schoolType="university">
                <School>
                    <InternetDomainName>www.uva.edu</InternetDomainName>
                    <SchoolName>Univeristy of Virginia</SchoolName>
                </School>
                <Degree degreeType="bachellors">
                    <DegreeName>Bachellors of Science</DegreeName>
                    <DegreeDate>
                        <YearMonth>1998-06</YearMonth>
                    </DegreeDate>
                    <DegreeMajor>
                        <Name>Computer Science</Name>
                    </DegreeMajor>
                    <DegreeMinor>
                        <Name>History, Technology, and Society</Name>
                    </DegreeMinor>
                </Degree>
            </SchoolOrInstitution>
            <SchoolOrInstitution schoolType="college">
                <School>
                    <InternetDomainName>www.gatech.edu</InternetDomainName>
                    <SchoolName>Georgia Institute of Technology</SchoolName>
                </School>
                <Degree degreeType="doctorate">
                    <DegreeName>Ph.D.</DegreeName>
                    <DegreeDate>
                        <YearMonth>2002-12</YearMonth>
                    </DegreeDate>
                    <DegreeMajor>
                        <Name>Computer Science</Name>
                    </DegreeMajor>
                    <Comments>Dissertation advisor: Amy Breck</Comments>
                </Degree>
            </SchoolOrInstitution>
        </EducationHistory>
        <SupportingMaterials>
            <AttachmentReference context="Resume/StructuredResume/EducationHistory/SchoolOrInstitution[2]"
mimeType="application/PDF">John_A_Example_GIT_transcript.pdf</AttachmentReference>
            <Description>Official Transcript for John A. Example, College of Computing, Georgia Institute of
Technology</Description>
        </SupportingMaterials>
    </StructuredXMLResume>
</Resume>
```

4 Implementation Considerations

4.1 Country Codes

Country codes must conform to ISO 3166 Representation of Countries, which is a 2-character (A-Z) code. Use of currency must conform to ISO 4217 - Representation of Currency and Funds, which is a 3-character (A-Z) code.

4.2 Employment Recommendation or Verification

The References structure contains contact information used in some countries to enable a candidate's previous employment to be verified. There is also an optional element in the EmploymentHistory schema, called "Verification", that enables the use of historical employment information in a screening environment. Because local, national and international governments have varying laws regarding the use of electronically-obtained permissions, it is strongly recommended that these elements only be used in processes where the candidate has legally authorized the transmission or other use of this information.

4.3 Use of Competency

There are some elements in the new Resume that have previously been accommodated in the Competency schema. For example, Licenses and Certifications have historically been captured in CompetencyEvidence, but because of the unique need for a resume to be both familiar and "format-able" to a job seeker, this element was given its own structure. The same information can still be carried in Competency, but implementers have a choice as to which structure best suits their purpose. Similarly, information about lingual abilities may be passed using either the Language module or the Competency module. The Competency schema is still included in the new Resume for structuring skills and other job related abilities. As a general rule of thumb, the ability-specific modules would be used when the data is more informational or "nice to know" whereas Competencies would be used when relaying a skill, ability or other qualification that is specifically required for a position, and some type of evidence might be requested to validate the claimed competency. For example, a candidate applying for a customer service position might use the language module to indicate that they are bi-lingual, even though the position description does not require it. If the position required that candidates be bilingual in English and Spanish, the candidate might list it in competency, using an assessment or language degree as evidence of the level of ther ability.

4.4 The "Contact" in ContactInfo

The ContactInfo element (in the context of the structured resume schema) is intended to be contact information **only** for the candidate whos resume data is being exchanged. It should not contain contact information for the agent, system or other "source" of the Resume data. There

are other broader schemas that “include” Resume where the supplier of the data’s contact information is captured.

```
<Resume>
    <StructuredXMLResume>
        <ContactInfo>
            <PersonName>
                <FormattedName>Jane Smith</FormattedName>
            </PersonName>
            <ContactMethod>
                <InternetEmailAddress>jsmith@test.com</InternetEmailAddress>
            </ContactMethod>
        </ContactInfo>
    </StructuredXMLResume>
</Resume>
```

Additionally, the ContactMethod must be repeated to allow for more than one telephone number or to specify different usage or contact times. The order of the sequence implies the preferred method of contact. In the following example, the daytime number is the preferred method of contact.

```
<!-- this is my personal daytime number -->
<ContactInfo>
    <ContactMethod>
        <WhenAvailable>daytime</WhenAvailable>
        <Telephone>
            <FormattedNumber>123-456-7890</FormattedNumber>
        </Telephone>
    </ContactMethod>
<!-- personal evening weekend number -->
    <ContactMethod>
        <WhenAvailable>evening and weekends</WhenAvailable>
        <Telephone>
            <FormattedNumber>123-456-7890</FormattedNumber>
        </Telephone>
    </ContactMethod>
</ContactInfo>
```

4.5 Anonymous Submittal

There is frequently a need or desire for a candidate to submit a resume without initially divulging their name or other identifiable contact information. To accommodate this, the personal identification information (ContactInfo) located in the structured resume schema can be used differently. The first way is to not include ContactInfo at all (it is an optional element). The second way is to only include partial information such as omitting the name, but still include a phone number, email address or some other form of contact.

```
<Resume>
    <StructuredXMLResume>
        <ContactInfo>
            <ContactMethod>
                <Telephone>
                    <FormattedNumber>+49 69 9987-1234</FormattedNumber>
                </Telephone>
            </ContactMethod>
        </ContactInfo>
```

```
    </StructuredXMLResume>
</Resume>
```

4.6 Volunteer Experience

Most examples of volunteer experience will fit within the Employment History schema. However, there may be situations where it could fit within Association or ResumeAdditionalItem.

For example, a member of HR-XML that receives notices and attends conferences might put this information under Association. A participant that assumes a role or performs specific duties that may be applicable to a specific position, might put this information under EmploymentHistory. Any other volunteer activities might fit under ResumeAdditionalInfo.

This may also be based on personal vs. professional. A professional activity, such as participation on the board of directors, may go under EmploymentHistory. A personal activity such as coaching a soccer team might go under ResumeAdditionalInfo (unless seeking a coaching position).

Here is an example of three different ways that volunteer experience could be exchanged within StructuredResume:

```
<Resume>
    <StructuredXMLResume>
        <EmploymentHistory>
            <EmployerOrg>
                <EmployerOrgName></EmployerOrgName>
                <PositionHistory positionType="volunteer">
                    <Title>Board Member</Title>
                    <OrgName>
                        <OrganizationName>HR-XMLConsortium</OrganizationName>
                    </OrgName>
                    <Description>Develop long-term goals and strategic planning.</Description>
                    <StartDate>
                        <YearMonth>2000-01</YearMonth>
                    </StartDate>
                    <EndDate>
                        <YearMonth>2002-01</YearMonth>
                    </EndDate>
                </PositionHistory>
            </EmployerOrg>
        </EmploymentHistory>
        <Associations>
            <Association type="Professional">
                <Name>HR-XML Consortium</Name>
                <Link>www.hr-xml.org</Link>
                <StartDate>
                    <YearMonth>2000-01</YearMonth>
                </StartDate>
                <Comments>Membership through current employer.</Comments>
            </Association>
        </Associations>
        <ResumeAdditionalItems>
            <ResumeAdditionalItem type="Volunteer">
                <EffectiveDate>
                    <StartDate>
                        <Year>2002</Year>
```

```
                </StartDate>
            </EffectiveDate>
            <Description>Deliver Meals On Wheels</Description>
        </ResumeAdditionalItem>
    </ResumeAdditionalItems>
</StructuredXMLResume>
</Resume>
```

4.7 Data Privacy

Human resources data, by its very nature, is personal data. The laws of many jurisdictions as well as codes of fair information practice require organizations to handle personal data in a way that protects individuals from loss of privacy.

The data exchange specifications developed by the HR-XML Consortium are designed to be useful across many jurisdictions and within a variety of business contexts. It is not feasible for the HR-XML Consortium to develop specific privacy guidance for every jurisdiction or business context in which the Consortium's specifications might be implemented. When implementing data exchanges using the HR-XML Consortium's data definitions (or, for that matter, using any other type of data exchange mechanism), organizations are advised to examine the privacy protections that may be required under applicable law and codes of fair information practice.

For information on protecting personal data, general references include: European Union Data Protection Directive (95/46/EC); the Association Computing Machinery Code of Ethics (1992); Canadian Standards Association Model Code for the Protection of Personal Information (1995 – PIPEDA); and U.S.-EU Safe Harbor Principles and FAQs (2000).

5 Appendix A – Document Version History

Version	Date	Description
2.1	2003-May-20	First Draft
2.1	2003-May-29	Added more details to the individual sections.
2.1	2003-May-30	Added SupportingMaterials to StructuredXMLResume. Send to TSC/CPO for review.
2.1	2003-Jun-13	Changed ContactMethod to multiple occurrences.
2.1	2003-Jun-30	Clarified wording based on CPO/TSC feedback.
2.1	2003-Sep-01	Approved by Consortium members.

6 Appendix B – Related Documents

Reference	Link
Resume Schema	http://ns.hr-xml.org/2_1/HR-XML-2_1/SEP/Resume.xsd
Resume Additional Items Schema	http://ns.hr-xml.org/2_1/HR-XML-2_1/SEP/ResumeAdditionalItems.xsd
Patent History Schema	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/PatentHistory.xsd
Publication History Schema	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/PublicationHistory.xsd
License And Certification Schema	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/LicensesAndCertifications.xsd
Speaking Events History Schema	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/SpeakingEventsHistory.xsd
Shared Staffing Modules Schema	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/SharedStaffingModules.xsd
Schema Instances	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/AchievementsExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/AssociationsExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/LanguagesExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/LicenseAndCertificationExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/PatentHistoryExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/PublicationHistoryExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/ReferencesExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/SecurityCredentialsExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/SpeakingEventsExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/SEP/SupportingMaterialsStructuredEg.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/SEP/SupportingMaterialsNonXMLResumeEg.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/SEP/ExecutiveSummaryExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/SEP/ResumeAdditionalItemExample.xml http://ns.hr-xml.org/2_1/HR-XML-2_1/SEP/ResumeExample.xml
Postal Address	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/PostalAddress.pdf
Person Name	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/PersonName.pdf
Contact Method	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/ContactMethod.pdf
Date/Time Data Types	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/DateTimeDataTypes.pdf
Employment History	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/EmploymentHistory.pdf
Education History	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/EducationHistory.pdf
Military History	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/MilitaryHistory.pdf
Competencies	http://ns.hr-xml.org/2_1/HR-XML-2_1/CPO/Competencies.pdf

Staffing Industry Data Exchange Standards	http://ns.hr-xml.org/2_1/HR-XML-2_1/SIDES/SIDES.pdf