**SIF Data Model Extension Proposal**

*This is a data model extension for two new objects in the Teaching and Learning Space designed to support P20 implementations and identity management systems communicating with other applications across the wire. .*

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|  |
| --- |
| Extension Proposal Version Control |
| Version | Date: | Author/Organization: | Comments |
| 0p1 | 6/30/11 | Alex Jackl (Choice Solutions) | Proposal for:1. A Person object that can unify educational information for an individual throughout their educational and workforce lifecycle.2. A “Person to Role” Association object that “associates” the above Person object with the more specific role objects which that person has taken on (Student, Teacher, ...) |
| 0p2 | 12/01/11 | Ron Kleinman (SIF) / Alex Jackl (Choice) | Put into new format and added some comments and questions. |
| 0p3 | 12/29/11 | Alex Jackl (Choice) | Updated based on feedback and comments |
| 0p4 | 01/03/12 | Alex Jackl(Choice)/ Ron Kleinman (SIF) | Included more responses to RK questions and filled in more blanks.  |
| 0p5 | 01/11/12 | George Sowell (KS – Global Data Model) | Updated to ease global alignment and leverage work is SIF AU 1.2 Specification.  |
| 0p6 | 01/21/12 | Alex Jackl (Choice) | Incorporated comments from Annual Meeting and did XML examples |
| v0p7 | 02/25/12 | Alex Jackl(Choice) | Incorporated comments from Webex Review |

# **1 Identification**

|  |  |
| --- | --- |
| Proposed Extension Name | Person |
| Submitted by (Project Team or Individual) | Teaching & Learning |
| Date of initial submittal | 12/29/2011 |
|  |  |
| What is the base SIF Data Model release? | SIF v2.6 |
| What is the base SIF Infrastructure release? | SIF v2.5 or later |
|  |  |
| What existing SIF object(s) if any will be affected?  | This will set up certain elements being deprecated in the next major release in all the role objects: StudentPersonal, StaffPersonal, EmployeePersonal |
| What is the name of any new object(s)? | Person, PersonRoleAssociation |
|  |  |
| DM Extension ID (to be assigned when submitted) |  |

**Status Tracker Phase 1: Documentation and Approval**

*The steps in this initial phase document the proposed extensions to the SIF Data Model to the point where they can be reviewed and approved by the Tech Board as deserving of further effort. Completion of the detailed design and evaluation of the dependencies and migration impacts are left until Phase II.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Template Section** | **Draft Completed****(Owner / Date)** | **Reviewed (R) or Accepted (A)****(Owner / Date)** | **Comments** |
| Rationale and Business Case  | Champion: *Alex Jackl***Date: 06/30/2011** | Tech Board (A)**Date:07/12/2011** | Assign to relevant Project Team(s): *Teaching and Learning* |
| Use Case(s) | Champion / Project Team: *T&L***Date:12/01/2011** | Project Team (R)**Date:12/01/2011** |  |
| Proposal approval | Project Team: *T&L***Date: 01/03/2012** | Tech Board (A)**Date: 01/11/2012** | Placed in Fast Track or Object Pipeline |

# **2. Proposal**

## 2.1 Rationale for Extension

*Explain the rationale for the proposed extension to the SIF Data Model:*

* *What are the problems / limitations to be addressed?*
* *What is the additional information required?*

In the new P20 world we are all working in there is a new requirement to track individuals not as the particular role they play at any one time- PK participant, K12 student, postsecondary student, employee, teacher- but rather through the entire lifecycle of their education and work life and back again.

This is especially true in the case of educators. Often a teacher will also be a "Contact" for a student and a "Guardian" and in some instances a "Student" may also be an "Educator". This complex environment calls for us to recognize an individual as a “Person” first, and use that as the union of the objects which represent the various “roles” the individual has taken on.

Allowing the SIF Data Model to reflect a top level “Person” rather than immediately expose “StudentPersonal”, StaffPersonal” and “Contact” will also result in a closer and more natural alignment to the standard Data Models (CEDS, PESC and IMS Data Models) as well as addressing the growing number of P20 Longitudinal systems and Identity Management.

The person object will act as a container for Person information independent of the role of the person. The person to roles association object will act as the structure for passing that relationship information over the wire. Both of these objects only directly impact those systems (such as longitudinal or cross-agency systems)that need to track and understand a person being in or having more than one role.

No two objects in any point in time can exist for the same person-role relationship.

Some suggested best practices for these objects:

1. Correlating a state ID to a returned StudentLocator/StudentPersonal object.

2. In the system design the date requirements should be specifically enforced.

# **Time Line**

This extension will be ready for US SIF Data Model Specification v2.6. It is also a good candidate for non-US data model releases as well. Conversations have been had on the International Technical Board that these objects will be needed there as well. They will be following the US Technical Board's lead.

## 2.2 Business Case

*Provide a specific example of an example where the additional information defined in this proposal will be used in one or more educational processes*

*It should focus exclusively on the business problem to be solved and avoid proposing solutions.*

There are several business cases driving the top level focus on “person” rather than “role”.

Educational related information for a single individual may subdivided among multiple systems, depending upon the “role” which that person takes on. For example, a given student may have multiple StudentPersonal records in different schools, a separate identity in a work study program, and (eventually) a different identity in an institute of higher learning. The challenge here is one of identity management – how to correlate information in multiple systems which reflects the different roles of a single individual, into one coordinated whole.

Alternatively an LMS might support “People” (with names, contact info, personal info) and only later divide them into Students, Proctors, Teachers, and Evaluators, with the same person possibly fulfilling each role. The challenge here is to support a “higher level” view of an individual within a single system, that can support multiple roles while reducing the amount of identical information duplicated with each role the individual takes on.

The primary design requirement is to avoid impacting the role-specific objects (such as StudentPersonal and StaffPersonal) which must remain independent of whether a higher level Person Object (and accompanying PersonRoleAssociation Object) exists and is referencing them.

An important secondary design consideration is to minimize the potential duplication of identification elements (name, contact info etc.) between what is recorded in the proposed Person object and what is recorded in the currently existing role-specific objects (StudentPersonal, StaffPersonal, ...).

Finally there should be some way for SIF-conformant systems to link those records for the same student at the same school which happens to span different years. This means the proposed person-to-role association must be capable of supporting multiple links between the same person and role, differentiated only by the start / stop times of when the association actually applied.

# **3. Use Cases**

*The proposal champion or the assigned project team must provide one or more high-level use cases illustrating the interactions between “actors” (typically applications) that become possible if this proposal is adopted and successfully implemented. Use one copy of the form below for each.*

## 3.1 Person Object Use Case 1

|  |  |
| --- | --- |
| **Summary Description** | This use case is of a Person object being provided by an Identity Management system to a P20 SLDS system,  |
| **Actors and types:****One or more of:*** **Requestor**
* **Provider**
* **Publisher**
* **Subscriber**
 | 1. State "Alpha" P20 SLDS system ("SLDS") - Requestor, Subscriber2, State "Alpha" Identity Management system ("IDM") - Provider, Publisher  |
| **Preconditions** | 1. Appropriate SIF Zones and Zone Architecture and Topology exist and are understood. 2. Person Identity elements ("ID characteristics") are agreed upon and designed into Identity Management system. 3. The system has a "global" Person ID (Master Person Index ID or "MPI ID") managed by the IDM. 4. IDM is set up as the default provider of the Person Object.  |
| **Main Sequence of Events / Action Steps** | 1. New person type record is added to SLDS. 2. [SIF] SLDS Requests Person Object from IDM with ID characteristics in the record. 3. IDM does internal activity to resolve the identity of the person described by the submitted ID characteristics. 4. [SIF] IDM sends a Response containing a Person Object with those ID characteristics and a MPI ID. 5. SLDS receives the Person Object and intakes the MPI ID (and any other added characteristics) and associates it with the new record.  |
| **Alternative Sequence of Events / Action Steps** | Alternate Step 4 and 5 if Person match is ambiguous: 4. IDM sends email to appropriate contact to resolve the case. 5. Case is resolved. 6. Begin at Step 4 above... |
| **Post Conditions** | None necessary to call out.  |
| **SIF Mandatory Objects** | Person Object |
| **SIF Optional Objects** | None |
| **Open Issues** | This choreography is just one small example. There are dozens of use cases but all fundamentally simple: This package allows non-role specific person information to be passed across the wire between a provider/publisher and a requester/subscriber. This object could also be used in an identity service.  |

## 3.2 PersonRoleAssociation Object Use Case 2:

|  |  |
| --- | --- |
| **Summary Description** | This use case is of a Person object being associated to multiple other SIF objects in order to be stored in a P20 SLDS system.  |
| **Actors and types:****One or more of:*** **Requestor**
* **Provider**
* **Publisher**
* **Subscriber**
 | 1. State "Alpha" P20 SLDS system ("SLDS") - Requestor, Subscriber2. State "Alpha" Identity Management system ("IDM") - Provider, Publisher 3. SIS system (with Students) - Publisher4. HR system (with Teachers)  - Publisher |
| **Preconditions** | 1. Appropriate Zone Architecture and Intra- and Inter-Zone Topology exists and is understood. 2. Person Identity elements ("ID characteristics") are agreed upon and designed into Identity Management system. 3. IDM is set up as the default provider of the Person Object and PersonRoleAssociation Object |
| **Main Sequence of Events / Action Steps** | 1. [SIF] IDM subscribes to StudentPersonal and StaffPersonal objects2. [SIF] SLDS subscribes to Person and PersonRoleAssociation objects.3. [SIF] SIS system publishes StudentPersonal Objects 4. [SIF] HR system publishes StaffPersonal Objects5. [SIF] IDM receives published objects. 6. IDM does internal matching processes to identify matches and associations7. [SIF] IDM publishes Person objects for new persons.8. [SIF] IDM publishes PersonRoleAssociation objects representing all the new associations created in the load (note: could be a scheduled event rather than "live")9. [SIF] SLDS receives new Person objects and new PersonRoleAssociation objects. 10. SLDS stores and stages this information.  |
| **Alternative Sequence of Events / Action Steps** | Alternate Steps to insert after Step 6 if Person match or Person to Role association is ambiguous: 6a. IDM sends email to appropriate contact to resolve the case. 6b. Case is resolved. 6c. Begin at Step 7 above... |
| **Post Conditions** | None necessary to call out.  |
| **SIF Mandatory Objects** | Person, PersonRoleAssociation, StudentPersonal, StaffPersonal |
| **SIF Optional Objects** | Any other person objects that might be being correlated to the SLDS system...  |
| **Open Issues** | 1. Could be used in an identity service2. EOY issues and RefID persistence issues need to be managed in the design of the Zone architecture and Object Choreography over time.  |

**Status Tracker Phase 2: Execution of Proposed Changes**

*At this point the initial Data Model extension proposal has been accepted by the Tech Board and is either in the object pipeline, or being fast-tracked. The following sections have to be completed and (where indicated) reviewed and approved before this proposal can be reflected in the SIF specification.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Template Section** | **Draft Completed****(Owner / Date)** | **Reviewed (R) or Accepted (A)****(Owner / Date)** | **Comments** |
| Dependencies  | Project Team / Staff**Date:01/21/12** | Internal Project Team review |  |
| Object Definition Table | Project Team**Date:01/21/12** | Tech Board (R)**Date: 01/21/12** |  |
| Migration Plan | Staff / Project Team **Date:01/21/12** | Tech Board (A)**Date: 01/21/12** | TB Approval is part of SIF Release cycle |
| Sample XML | Staff / Project Team **Date:01/21/12** | Optional:Included | Generally provided as part of published specification |

# **4. Impact Assessment**

*This section is the first to consider the actual implementation which will address the use cases previously identified. It requires assessing the impacts to both the existing objects and infrastructure, and to previously deployed applications. It would normally be produced by the Project Team (new or existing) assigned to this data model extension by the Tech Board at the time this proposal was approved.*

## 4.1 External Object Dependencies and Relation Map

*Identify any dependencies on existing XML entities in other SIF objects*

By its very nature the Person Object duplicates much of the information under StudentPersonal and StaffPersonal, including:

* Name
* Other Names
* Demographics
* Address List
* Phone Number List
* Email List

The PersonRoleAssociation Object contains the RefIDs of the Objects that contain the role-specific information for a given person. For instance it would contain a link to the Student Personal Object that is linked to that Person Object. There will be many relationships to one Person Object. When designing your system you should make sure you consider the implications of this on your data integrity.

|  |  |  |
| --- | --- | --- |
| **Proposed new Element or Attribute** | **Object & XML Entity dependency** **(Element, Attribute, Type)** | **Relationship / Reason** |
| n/a | n/a | n/a |

## 4.2 Infrastructure / International Dependencies and Relation Map

*Identify any dependencies on infrastructure technologies and / or deliverables from the International Technical Board (ITB) which are planned for a future release.*

*This could include requiring or relying on specific functionality from one or more of the following:*

* *Transport (ex: SOAP conventions)*
* *SIS Functional Profiles*
* *Identity Management Profiles*
* *Global Data Model Metadata*
* *Central Administration or Smart Zone*
* *Zone Services (ex: Assessment)*

There are no infrastructure dependencies and the ITB may take its lead from these objects. These objects have been reviewed by some ITB members.

|  |  |  |
| --- | --- | --- |
| **Proposed new Object, Element or Attribute** | **Infrastructure or International technology dependency** | **Specifics of dependency** |
| n/a | n/a | n/a |

# **5 Detailed Design**

*Place the detailed element by element, attribute by attribute breakdown of the Data Model Extension here. This work is normally done by members of the assigned Project Team.*

*The possible values of the “Char” column include*

*One of the following primary (and mutually exclusive) characteristics:*

* ***M – Mandatory****. Item must appear in every Add Event and, where not excluded in a conditional Request, in every Response message for the object*
* ***Q – ReQuired****. Item must either appear in an Add Event or eventually be included in a Change Event, and once added is returned in all corresponding queries.*
* ***S – Supported****. Item may or may not appear in any message relating to the object. However if its value is supplied / available to the sender, the item is provided in Event and Response messages as if it were Mandatory.*
* ***O – Optional****. Item may or may not appear in any message relating to the object. It need not be supported by the sender*

Plus one or more of the following characteristics if applicable:

* ***C******– Conditional.*** *Item is treated as the accompanying primary characteristic if the specified conditions are satisfied*
* ***I –******Immutable.*** *Item value cannot be changed once supplied.*
* ***U –******Unique.*** *Item value is unique from all other objects containing that item (ex: RefId)*
* ***N –******Non-Queryable****. Item is often calculated (ex: an aggregate), and can’t be used as a search key in a conditional Request.*

Plus the following characteristic if applicable:

* ***R ­– Repeatable.*** *Item may appear more than one time.*

*The “type” of each item is either an XML type (ex: integer) or a named SIF Global Type.*

 *XML Facets can help to further define the value of an item. These can include length, range, and per-type value restrictions. They should be specified if known.*

*Fill out a separate copy of the following table for each affected new or existing SIF object.*

## 5.1 Object Name: Person

|  | **Object/Element/@Attribute** | **Char** | **Description** | **Type** |
| --- | --- | --- | --- | --- |
|  | **Person** |  | This object contains personal information about individuals to allow them to be tracked and information collected in role specific objects (e.g., StudentPersonal and StaffPersonal) to be related. In a future major release, the architecture may allow this to be streamlined. |  |
| **@key** | RefId | MI | The GUID of the person. | [RefIdType](http://specification.sifassociation.org/Implementation/US/2.5/html/CommonTypes.html#RefIdType) |
|  | SocialSecurityNumber | O | The Social Security number of the person | 9 character number |
|  | DriversLicenseNumber | O | The driver's license of the individual | String |
|  | DriversLicenseNumber/@StateProvince | M | The state/province that issued the driver's license.  | String |
|  | PersonId | O | The state-assigned identifier for this person. This will probably not be the same State Province ID as the one assigned to the various roles such as StudentPersonal. | [StateProvinceId](http://specification.sifassociation.org/Implementation/US/2.5/html/DataModel.html#StateProvinceId) |
|  | PersonId/@Label | O | The label associated with this id for instance: "MPI ID" or "P20ID"  | String |
|  | ElectronicIdList | O | List of alternate electronic ids | ElectronicIDListType |
|  | PersonInfo | M | Person Information  | [PersonInfoType](http://specification.sifassociation.org/Implementation/US/2.5/html/DataModel.html#ElectronicIdList) |
|  | DateUpdated | M | If no other data then defaults to object creation date | Date |
|  | SIF\_Metadata | O |  | [SIF\_Metadata](http://specification.sifassociation.org/Implementation/US/2.5/html/DataModel.html#SIF_Metadata) |
|  | SIF\_ExtendedElements | O |  | [SIF\_ExtendedElements](http://specification.sifassociation.org/Implementation/US/2.5/html/DataModel.html#SIF_ExtendedElements) |

## 5.2 Object Name: PersonRoleAssociation

|  |  |  |  |
| --- | --- | --- | --- |
| **Object/Element/@Attribute** | **Char** | **Description** | **Type** |
| PersonRoleAssociation |  |  |  |
| @RefId | MI | The RefId of the PersonRoleAssociation object. | GUID |
| PersonRefId | MI | The RefId for the Person Object | GUID |
| AssociatedRole | MI | The RefID of the SIF\_Object | SIF\_RefID |
| AssociatedRole/@Zone\_ID | O | The ZoneID for the target object | GUID |
| AssociatedRole/@Type | MI | The content of this attribute documents the object type- for instance StudentPersonal, StaffPersonal, EmployeePersonal, Contact, etc. | GUID |
| EntryDate | Q | (effective date of the association) | Date |
| ExitDate | Q | (effective date of the association) | Date |
| AuthoritativeSource | M | (body or organization creating this association) | String |
| Creator | O | Name of the Creator | String |
| Creator/@Type | O | The object type of the object representing the Creator. | SIF Object Name |
| Creator/@SIF\_RefID | OI | RefID of SIF object representing the creator if such exists- Mandatory if a Creator/ObjectType exists  | GUID |
| CreationDate | O | (of the relationship)  | Date |
| SIF\_Metadata | O |  | SIF\_Metadata |
| SIF\_ExtendedElements | O |  | SIF\_ExtendedElements |

# 6 Migration Plan (for proposed changes to existing objects only)

*One of the mandatory components of every Data Model Change proposal is the Migration Plan. This section describes the impact of the proposed change to legacy SIF Zones and the techniques, best practices and deployment guidelines designed to minimize that impact. It is normally filled out in coordination with SIF Staff or an experienced SIF Data Modeler.*

**Migration Plan:**

|  |  |  |
| --- | --- | --- |
| **Component Replaced** | **Increased Functionality (if any)** | **Effect on Legacy components (if any)** |
| n/a | n/a | n/a |

# **7 Issues**

*List any issues surrounding this proposal which the reviewers or approvers may need to consider.*

## 7.1 Data Element Overlap

This would have to be resolved. Can the data be stored just once and referenced via a Person Object element which is the “RefId” to the “owner of record” for the individual’s identification information? That raises other problems of its own ... because the provider of the owner-of-record object wouldn’t necessarily know it, and might delete it (say at the end of the year).

### Response:

Elements could be in both places. We may need to create some best practices and might deprecate the overlapping elements in a 3.0 release.

The general issue of multiple locations for the same information is a complicated issue that does exist in the P20 and SLDS systems across the countries at the SEA and LEA level. The problem is that multiple records will exist for the same entity. But that information was taken at a different time and possibly even from a different source. The data architecture of the storage and persistence systems need to account for that and the Zone topology and architectures needs to reflect that design.

It is also important to take into account the InterZone issues of data ownership for particular people and identifying people across Zonal boundaries.

## 7.2 the End of Year Case

The EOY case is particularly troubling here although the problem applies to all cases. If object provider X of the PersonToRoleAssociation object were different from the SIS, and the SIS archived all StudentPersonal information at the end of the year, and refreshed with the new data (presumably invalidating the RefId):

* How would X know the RefId it held was now invalid for retrieving student info?
* What could it do even if it did know, other than archive a copy of all the student data for that year itself?

### Response:

This is certainly a case and is a fundamental issue when attempting to use horizontal SIF architecture and non-longitudinal application behavior with these objects. If there is to be management of longitudinal data then the issue of RefID persistence and End-Of-Year Roll over will need to be handled in the architecture and choreography of the Zones involved with this.

## 7.3 Migration Issues

All objects are new, so there is no data migration ... unless part of this project requires us to remove duplicate elements from EmployeePersonal, StudentPersonal, StaffPersonal and ContactPersonal. If true, this is a SIF v3.0 deliverable. If not ... unless we are careful, for a person spanning 2 roles we will be reduplicating the identity info (so it would appear in 3 places instead of 2). That can’t be good.

In addition there may be impacts / new restrictions on processes like EOY, or what happens at other times when personal data is archived or deleted (ex: student transfers to a new school in the same district).

 In fact, the entire proposal may be too ambitious, because in essence it tries to unify data held in multiple places by accessing a single object which doesn’t itself replicate the data. The similarities to an Identity Management system are considerable and those are not simple systems.

Are you envisioning that the Person object will underlie Andy’s work on IDM? Has that loop been closed?

### Response:

These are all new. This proposal does not require changing any of the person-type objects but it may call for us add a reference to a person object in all of these. This would allow those objects to be published with identifying information removed and give researchers access to them and NOT give researchers access to the Person objects. This is a very appealing use as it handled some serious security issues that can chase our systems.

As stated above the EOY issues and Object RefId persistence needs to be handled SIF wide not just for these objects as more and more systems do not reset each summer.

The multiple instances of the data issue is not due to these objects but due to the complexity of the business we are now faced. As more and more data is collated from multiple sources it is often to have both a normalized "current truth" and you need to know what the source system actually had for those values. So this is not a mistake or something to be corrected but rather a function of the business cases we are facing in 21st century systems.

This is proposal can work with the IDM work being done and is designed with that in mind.

# **8 XML Example(s)**

*One or more examples of XML instances representing the items in the proposed extension should be placed here, as part of work done during the detailed design process.*

## 8.1 Person Sample XML

<SIF\_Message Version="2.6" xmlns="http://www.sifinfo.org/infrastructure/2.x">

 <SIF\_Response>

 <SIF\_Header>

 <SIF\_MsgId>DCF9D904B8F84B729C92D648CB63C9F3</SIF\_MsgId>

 <SIF\_Timestamp>2012-01-21T08:23:26-05:00</SIF\_Timestamp>

 <SIF\_SourceId>XXXX Agent</SIF\_SourceId>

 <SIF\_DestinationId>STATE</SIF\_DestinationId>

 </SIF\_Header>

 <SIF\_RequestMsgId>EB79C4T3FF1341D785138B704B721SBD</SIF\_RequestMsgId>

 <SIF\_PacketNumber>1</SIF\_PacketNumber>

 <SIF\_MorePackets>No</SIF\_MorePackets>

 <SIF\_ObjectData>

 <Person RefId="F260716384746B387459000F84717C00">

 <SocialSecurityNumber>0275550000</SocialSecurityNumber>

 <DriversLicenseNumber StateProvince="ON">A346754</DriversLicenseNumber>

 <PersonId>1204567</PersonId>

 <ElectronicIdList>

 <ElectronicId Type="Barcode">206654</ElectronicId>

 <ElectronicId Type="PIN">9823</ElectronicId>

 </ElectronicIdList>

 <PersonInfo>

 <OtherIdList>

 <OtherId Type="MasterPersonIndex Id"> 34697550 </OtherId>

 </OtherIdList>

 <Name Type="04">

 <Prefix>Mr.</Prefix>

 <LastName>Dancer</LastName>

 <FirstName>Hap</FirstName>

 <MiddleName>P</MiddleName>

 <PreferredName>Twinkletoes</PreferredName>

 </Name>

 <OtherNames>

 <Name Type="01">

 <LastName>Killer</LastName>

 <FirstName>Serial</FirstName>

 </Name>

 </OtherNames>

 <Demographics>

 <RaceList>

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 <Code>1002</Code>

 </Race>

 </RaceList>

 <Gender>M</Gender>

 <BirthDate>1990-09-26</BirthDate>

 <BirthDateVerification>1004</BirthDateVerification>

 <PlaceOfBirth>Miami</PlaceOfBirth>

 <CountyOfBirth>Dade</CountyOfBirth>

 <StateOfBirth>FL</StateOfBirth>

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 </EnglishProficiency>

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 <Code>eng</Code>

 </Language>

 </LanguageList>

 <DwellingArrangement>

 <Code>1674</Code>

 </DwellingArrangement>

 <MaritalStatus>1042</MaritalStatus>

 </Demographics>

 <AddressList>

 <Address Type="0123">

 <Street>

 <Line1>6799 33rd Ave.</Line1>

 <StreetNumber>6799</StreetNumber>

 <StreetName>33rd</StreetName>

 <StreetType>Ave.</StreetType>

 </Street>

 <City>Chicago</City>

 <StateProvince>IL</StateProvince>

 <Country>US</Country>

 <PostalCode>60660</PostalCode>

 </Address>

 </AddressList>

 <PhoneNumberList>

 <PhoneNumber Type="0096">

 <Number>(604) 555-1212</Number>

 </PhoneNumber>

 </PhoneNumberList>

 <EmailList>

 <Email Type="Primary">happydancer@sifinfo.org</Email>

 </EmailList>

 </PersonInfo>

 <DateUpdated>2012-01-21</DateUpdated>

 </Person>

 </SIF\_ObjectData>

 </SIF\_Response>

</SIF\_Message>

## 8.2 PersonRoleAssociation Sample XML

<SIF\_Message Version="2.6" xmlns="http://www.sifinfo.org/infrastructure/2.x">

 <SIF\_Response>

 <SIF\_Header>

 <SIF\_MsgId>DCF9D904B8F84B729C92D648CB63C9F3</SIF\_MsgId>

 <SIF\_Timestamp>2012-01-21T08:23:26-05:00</SIF\_Timestamp>

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