

HR-XML Consortium

3.2.1 HR Provisioning

Specification

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Table of Contents

Provisioning Specification Overview	4
Indicative Data	5
Overview	5
Actors	5
Trigger / Precondition	6
HR Master Data	7
Overview	7
User Account	8
Overview	8
Triggers / Precondition	8
Organization Chart	10
Overview	10
Triggers / Preconditions	10
Competency Definitions	12
Overview	12
Triggers / Preconditions	12
Position Competency Model	13
Overview	13
Triggers / Preconditions	13
Appendix A: Examples	14
Indicative Data	14
Prehire Examples	14
Additional Examples	14
HR Master Data	15
User Account	15
Organization Chart	15
Competency Definitions	15
Position Competency Model	15
Appendix B: Noun Layouts	16
Indicative Data	16

HR Master Data.....	17
User Account.....	18
Organization Chart.....	19
Competency Definitions.....	20
Position Competency Model.....	21
Appendix C: Business Object Document Diagrams.....	22
Indicative Data	22
HR Master Data.....	23
User Account.....	24
Organizational Chart	25
Competency Definition	26
Position Competency Model.....	26

Provisioning Specification Overview

This document includes a set of schema that may be used to provision an HRIS or 3rd party system.

The key provisioning schema include:

IndicativeData. Defines a set of data about the relationship between an employer and employee or former employee that is relevant to the provisioning of outsourced benefits and payroll systems. It is "indicative" data in that the target system has business rules and logic to administer the employee's compensation and/or benefits programs based on the data supplied.

HRMasterData. Contains a broad set of information about a human resource. HRMasterData is not limited to a particular domain (for example, EPMParticipant and IndicativeData). Used to provision or synchronize data between and among HR systems.

UserAccount. Contains a set of information used to establish and maintain user accounts for an application or system.

OrganizationChart. Provides a simple, "open model" structure for communicating basic information about an organization, its sub-entities or "organization units," the positions within those units, and the incumbents within those positions. The schema design is "flat" versus recursive in design, but hierarchy and reporting relationships can be expressed.

CompetencyDefinitions. Contains structured information about the semantics associated with a one or more competencies. A Reusable Competency Definition (RCD) is reusable in that it is without a specific context. In other words, it is a definition of a competency not yet associated with a person profile, position, or learning object.

PositionCompetencyModel. Contains a collection of competency information associated with a position or job. A position competency model includes references to individual competencies and references to groups of competencies that are required or associated with a position or job. Within those groups and individual competency references is information about associated proficiency levels (require or desire proficiency), and weightings of the group or individual competencies among their siblings.

Indicative Data

Overview

The Indicative Data noun was specifically designed to support the communication of employee data from core HR systems to benefits and payroll service providers. However, because it covers a broad snapshot of human resource data, it is broadly applicable to many HR system integrations.

"Indicative" is defined by the Oxford English Dictionary as that which "points out, states, or declares." In the context of benefits administration, the term refers to the practice of third-party administrators determining benefits eligibility and other administrative calculations on the basis of employee census data and plan eligibility rules. In other words, the census data points out or indicates eligibility based on plan rules. For example, plan rules may extend benefits to only certain classes of employees, such as those who are scheduled to work more than 35 hours per week or special levels or types of benefits may be available to employees, classified managers, and salaried professionals.

Note: The Indicative Data noun has "swiss-army-knife-like" utility for many HR system integrations. UserAreas make it easy to extend. However, it is not intended to be a complete set of "HR master data."

Actors

The IndicativeData specification typically would be used in integrations between a core HR system and the system of a benefit or payroll service outsourcer. However, IndicativeData, provides a broad snapshot of employee data that may be useful in integrations among many types of HR system actors.

- **Benefits Plan Administrator.** A benefits plan administrator (or sometimes "third-party administrator" or "TPA") serves as record keeper for a benefits program, administers new enrollments and changes in plan elections, updates participant data to reflect business and life events, and administers legal compliance on behalf of an employer. The administrator also may provide on-line facilities for employees/participants to use in making elections, enrollments, and in gaining information with respect to their benefit programs.
- **Enterprise Resource Planning System (ERP).** An integrated information system that serves all departments within an enterprise, often including human resources. Evolving out of the manufacturing industry, ERP modules may be able to interface with an organization's own software and third-party applications with varying degrees of effort. ERP modules may be alterable via the vendor's proprietary tools as well as proprietary or standard programming languages.
- **HRIS.** An HRIS or "core HR system" combines such functionality as: employee data management, reporting, compliance, benefits administration, recruitment and applicant tracking, talent management, manager and employee self-service modules, and integration services.
- **Learning Management System.** Learning management systems encompass a wide-range of functionality, ranging from administrative tasks (student registration, content management, etc.) to strategic ones (competency management, skills-gap analysis, etc.).

- **Payroll Service.** The service provider responsible for processing the payroll of the associated employer. Usually is an external, third-party service, but sometimes may be an internal service provider.
- **Time and Attendance System.** A time and attendance system encapsulates such functionality as time card entry and capture, activity tracking, overtime tracking and management, classification and allocation of working hours, time card review and approval, and integration with payroll, billing, and other systems relying on time-worked data.

Trigger / Precondition

Examples of events that could trigger the collaboration, include:

- **Hire.** A "hire event" coincides with the point in time at which a person who has been a candidate becomes associated with an employer as an employee. Sometimes systems are pre-provisioned with information about an individual after he or she has accepted the offer, but before the employee enters-on-duty.
- **Life Events.** This broad category of events covers such happenings in the lives of employees or plan participants as marriage, divorce, legal separation, marriage annulment, birth or adoption of dependent children, gain/loss of guardianship, death, disability, leave of absence, etc.
- **Personal Data Changes.** These include events such as changes in personal information, such as government identifier, person name, home address, direct deposit account, etc.
- **Organizational Events.** A wide variety of organization events can trigger updates of human resource data or otherwise trigger interactions between HR service providers. Among those events are: layoff; location closure; merger; business reorganization; corporate relocation; acquisition; bankruptcy; and divestiture of operating units.
- **Outsourced Service Provider Provisioning.** Many hosted and outsourced service providers need to be provided with information about the universe of employees or human resources that they will manage or for which they will provide related services. This involves providing the service provider with an initial build of organizational, position, and human resource data and often involves the communication of updates as business and life events change data provided in the initial build.

HR Master Data

Overview

As mentioned in the previous section, the IndicativeData noun has "swiss-army-knife-like" utility for many HR system integrations. UserAreas make it easy to extend. However, it is not intended to be a complete set of "HR master data." In response to frequent requests for a noun that was modeled like the IndicativeData specification, but included a broader range of content, the HRMasterData noun was developed.

User Account

Overview

One aspect of provisioning HR systems is simply setting up user accounts. This involves conveying information about who is currently authorized for a certain scope of work within a given system or related systems. Equally as important as the setup of user accounts is maintenance and "de-provisioning" of accounts when a user's authorizations change (for example, when an employee terminates employment or an assignment to which the authorization applied).

User account provisioning is one aspect of identity management. There are a variety of organizations that focus on identity management standards and best practices. Note that the User Account noun can be used with the Business Object Document (BOD) messaging architecture or used in conjunction with provisioning protocols such as Services Provisioning Markup Language (SPML), a standard issued by the Organizations for the Advancement of Structured Information Standards (OASIS).

Triggers / Precondition

Examples of events that trigger the need to create and maintain user accounts are:

- **Hire.** A "hire event" coincides with the point in time at which a person who has been a candidate becomes associated with an employer as an employee. Sometimes systems are pre-provisioned with information about an individual after he or she has accepted the offer, but before the employee enters-on-duty.
- **Termination of Position Incumbent.** The termination of someone in a budget position triggers a wide variety of exit processes (exit interviews, de-provisioning of systems, collection of access cards and employer property, etc.) and also usually triggers a requisition to fill the position left open.
- **Begin Assignment.** This is the beginning of an individual's assignment or engagement within a particular work role or with a particular client employer. A new assignment can trigger a variety of related activities, such as training and development, the start of probationary review cycles, the recording of applicable administrative and pay changes, and the granting of necessary access, equipment, and other facilities necessary for the individual to be fully productive within the new assignment.
- **End of Temporary Assignment.** The end of a temporary assignment would trigger a variety of processes, including the suspension of certain access and de-provisioning of accounts or privileges created for fulfillment of the temporary assignment. For an individual placed by a staffing agency, the end of an assignment would trigger notifications relating to the assignment termination as well as tasks such as preparation and submission of final time cards and final invoice preparation.

- **Employee Promotion or Position Transfer.** The promotion or transfer of an employee to a new position obviously triggers a variety of associated changes (reporting relationships, pay and benefit changes, work location changes, etc.).

Overview

The OrganizationChart noun can be used in a variety of integration scenarios. A common use might be to provision a partner system (for example, a hosted talent management or performance management system) with information about organizational units, their "member positions" relationships among organizational units, and reporting and other relationships among positions. The schema also optionally allows the communication of brief information identifying position incumbents.

The OrganizationalChart specification can be used in combination with the HRMasterData noun and/or EPMParticipant noun. One approach is to provide information about the organization hierarchy and relationships among positions using OrganizationalChart and then to provide details about the incumbents (people in positions) using the IndicativeData or EPMParticipant messages. PositionID could be used as a key by the receiver to associate a position described in OrganizationChart with a person described in IndicativeData or EPMParticipant.

Note: While organizational charts can have complex hierarchical structures or express complex relationship mappings among nodes, the structure of the OrganizationalChart specification is flat and simple. An organizational unit is associated with its parent organization through an identifier (ParentOrganizationUnit/OrganizationUnitID). An organization unit can be associated with any other related organizational unit (so called "dotted lines") using RelatedOrganizationUnit/OrganizationID. MemberPositions are grouped within OrganizationalUnits. "ReportsToPosition," "ReportsToPerson," and "RelatedPosition" are components within MemberPosition to associate a position (and optionally its incumbent) with other positions and people.

Triggers / Preconditions

Examples of events that could trigger the collaboration, include:

- **Outsourced Service Provider Provisioning.** Many hosted and outsourced service providers need to be provided with information about the universe of employees or human resources that they will manage or for which they will provide related services. This involves providing the service provider with an initial build of organizational, position, and human resource data and often involves the communication of updates as business and life events change data provided in the initial build.
- **Employee Promotion or Position Transfer.** The promotion or transfer of an employee to a new position obviously triggers a variety of associated changes (reporting relationships, pay and benefit changes, work location changes, etc.).
- **Hire.** A "hire event" coincides with the point in time at which a person who has been a candidate becomes associated with an employer as an employee. Sometimes systems are pre-provisioned with information about an individual after he or she has accepted the offer, but before the employee enters-on-duty.

- **Organizational Events.** A wide variety of organization events can trigger updates of human resource data or otherwise trigger interactions between HR service providers. Among those events are: layoff; location closure; merger; business reorganization; corporate relocation; acquisition; bankruptcy; and divestiture of operating units.

Competency Definitions

Overview

The CompetencyDefinitions noun is intended to support the communication of competency definition content. The specification is intended to be used to provision talent management systems with competency content required for recruiting, employee development, appraisals, performance management, succession planning, and other human capital management activities.

This specification relies on the concept of "reusable competency definitions" (RCDs). RCDs are described and formally defined in IEEE Std 1484.20.1-2007, Data Model for Reusable Competency Definitions, and in the precursor specification, IMS Reusable Definition of Competency or Educational Objective (RDCEO). The basic idea behind an RCD is to represent the semantics of an individual competency, independently of its use in any particular context. Competency taxonomies and position competency models can be constructed by referencing a collection of atomistic RCDs.

Triggers / Preconditions

The provisioning of a system with competency content can occur at the time of system setup as well as periodically when updated versions of competency models and taxonomies are published. Retrieval or communication of definitions might also correspond with exercises such as succession planning or the need to model or plan for new positions.

Position Competency Model

Overview

HR-XML's PositionCompetencyModel noun allows the capture of a collection of competency information associated with a position or job. A position competency model includes references to individual competencies and references to groups of competencies that are required or associated with a position or job. Within those groups and individual competency references is information about associated proficiency levels (require or desire proficiency), and weightings of the group or individual competencies among their siblings.

The PositionCompetencyModel specification can be used in combination with HR-XML's CompetencyDefinitions, and EPMParticipant specifications to meet a variety of talent management provisioning requirements.

Triggers / Preconditions

Examples of events that could trigger the collaboration, include:

- **Approval to Fill Position.** Supervisory approvals often are required before a hiring manager and / or HR personnel may begin sourcing candidates (for example, posting a position opening). Hiring processes vary considerably. This approval may occur at the time the underlying budget for the position is approved or this may be a separate step that occurs after budgetary approval.
- **Outsourced Service Provider Provisioning.** Many hosted and outsourced service providers need to be provided with information about the universe of employees or human resources that they will manage or for which they will provide related services. This involves providing the service provider with an initial build of organizational, position, and human resource data and often involves the communication of updates as business and life events change data provided in the initial build.
- **Employee Promotion or Position Transfer.** The promotion or transfer of an employee to a new position obviously triggers a variety of associated changes (reporting relationships, pay and benefit changes, work location changes, etc.).

Appendix A: Examples

Examples for each of these nouns can be found in the Instances folder.

Indicative Data

Sometimes it is useful for an employer to communicate to a service provider its intent to hire an individual in advance of the individual's first day of work or "official hire" date. Such advanced notice can ensure that necessary preparations are made and delays avoided when the employee actually begins employment. For example, with the advanced notice, a benefits administrator might create a record in its system, so upon the individual's first day of work, he or she may enroll online in the employer's benefit programs.

Prehire Examples

The examples that follow illustrate a pre-hire notification to a service provider as well as a subsequent communication when the individual actually begins employment.

SyncIndicativeData-JimmyPreHire-SimplePreHireNotice.xml

In this example, information about "Jimmy Prehire" is sent to a service provider prior to his official hire or enter on duty. In the pre-hire message, note the following:

- Since there is no existing record for Jimmy, the `actionCode` attribute of `<oa:ActionExpression>` is set to "Add" to communicate an instruction to create a new record.
- The `<ProposedHireDetails>` element is used to specify the employee's anticipated first day of employment (2009-09-10).
- `<EmployedIndicator>` has a value of "false" since the candidate is not yet officially an employee.

SyncIndicativeData-JimmyPreHireOfficiallyHired-Detailed.xml

"Jimmy Prehire" has officially become an employee. This is communicated in a follow-up message. Note the following:

- The trading partners are using the "snapshot" or "full-file" refresh approach to updating information. Therefore, the `actionCode` attribute of `<oa:ActionExpression>` is set to "Replace". The expression is left empty since it is assumed that the content provided will replace the record on the receiver's system in its entirety.
- The official hire date (2009-09-16) differs from that of the anticipated first day of employment that was indicated in the pre-hire message.

Additional Examples

GetIndictiveData-Example-1.xml

GetIndictiveData-Example-2.xml

SyncIndictiveData-Example-1.xml

SyncIndictiveData-WilliamNewHire.xml

HR Master Data

This example is intended to demonstrate some of the scope information covered by the HRMasterData noun.

SyncHRMasterData-Example-1.xml

User Account

The following is a simple example illustrating how the noun might be used in provisioning a screening service provider system with a user account.

ProcessUserAccount-Example-1.xml

Organization Chart

The following is a simple example combining the Sync verb with the OrganizationChart noun. SyncOrganizationChart is used when the owner of the data is passing or publishing that information or change in information to other software components. This is to be used when the receiver of the SyncOrganizationChart does not own the data. This verb is commonly used when mass changes are necessary or when a publish and subscribe mechanism is used in the integration architecture. The purposes of this verb include application integrity and ease of data entry for the business user by enabling a single point of input.

Note: The actionCode attribute of <oa:ActionExpression> is set to "Replace" The expression is left empty since it is assumed that the content provided will replace the record on the receiver's system in its entirety.

SyncOrganizationalChart-Example-1.xml

Competency Definitions

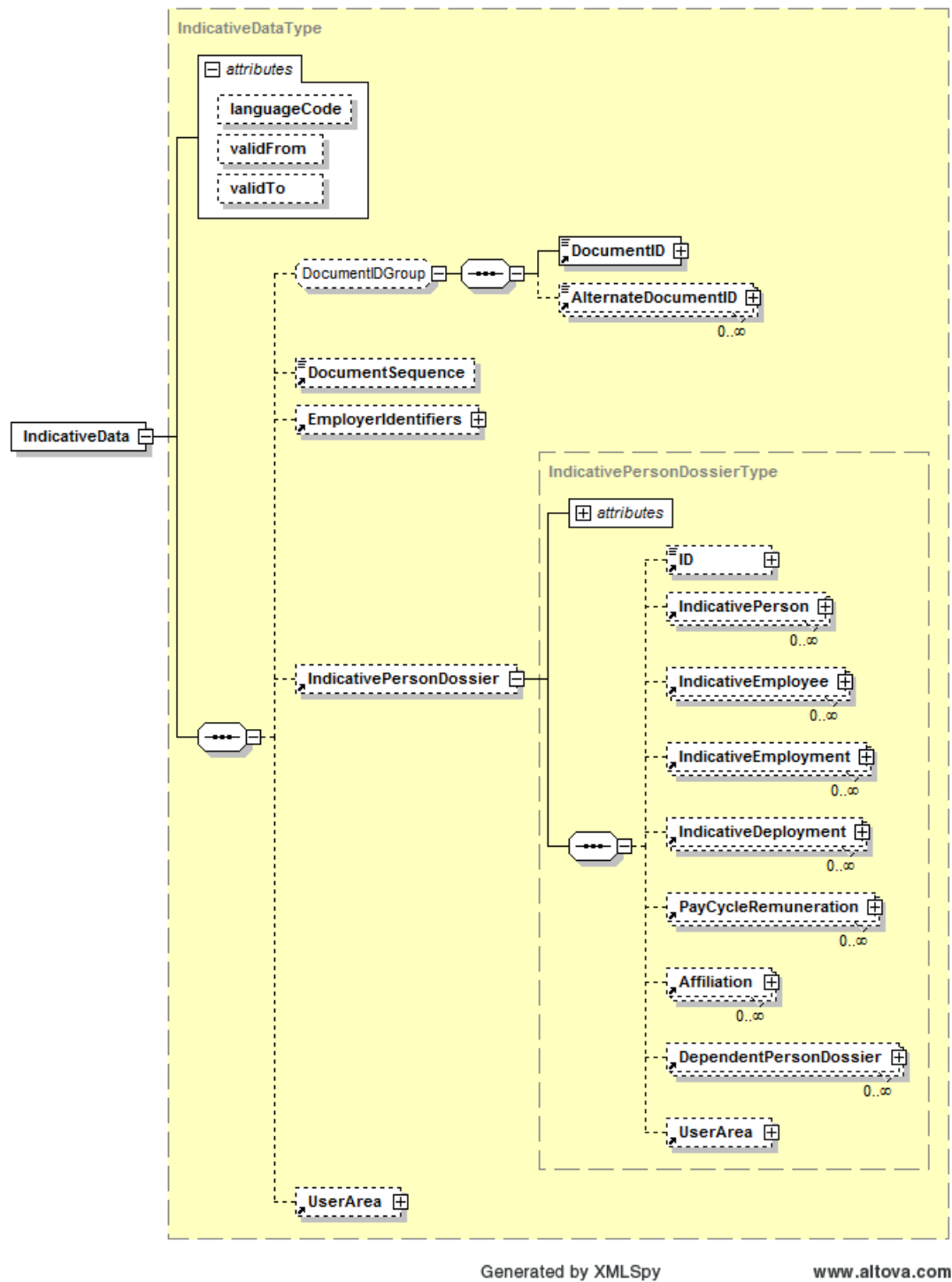
The following example illustrates the communication of a competency definition group. The group includes definition of a base competency, behavioral indicators, and behavioral interview questions related to the base competency.

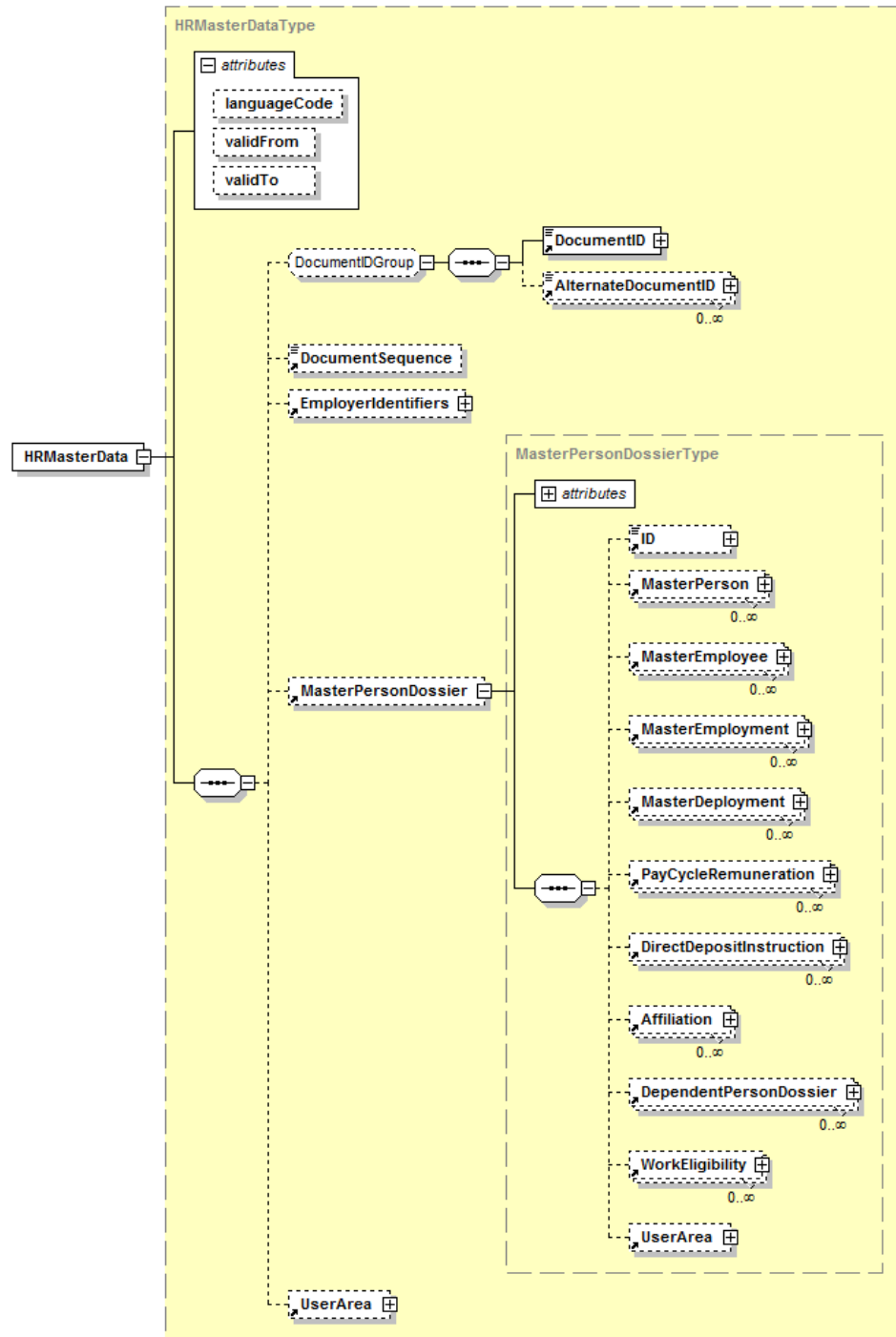
ProcessCompetencyDefinitions-Example-1.xml

Position Competency Model

ProcessPositionCompetencyModel-Example-1.xml

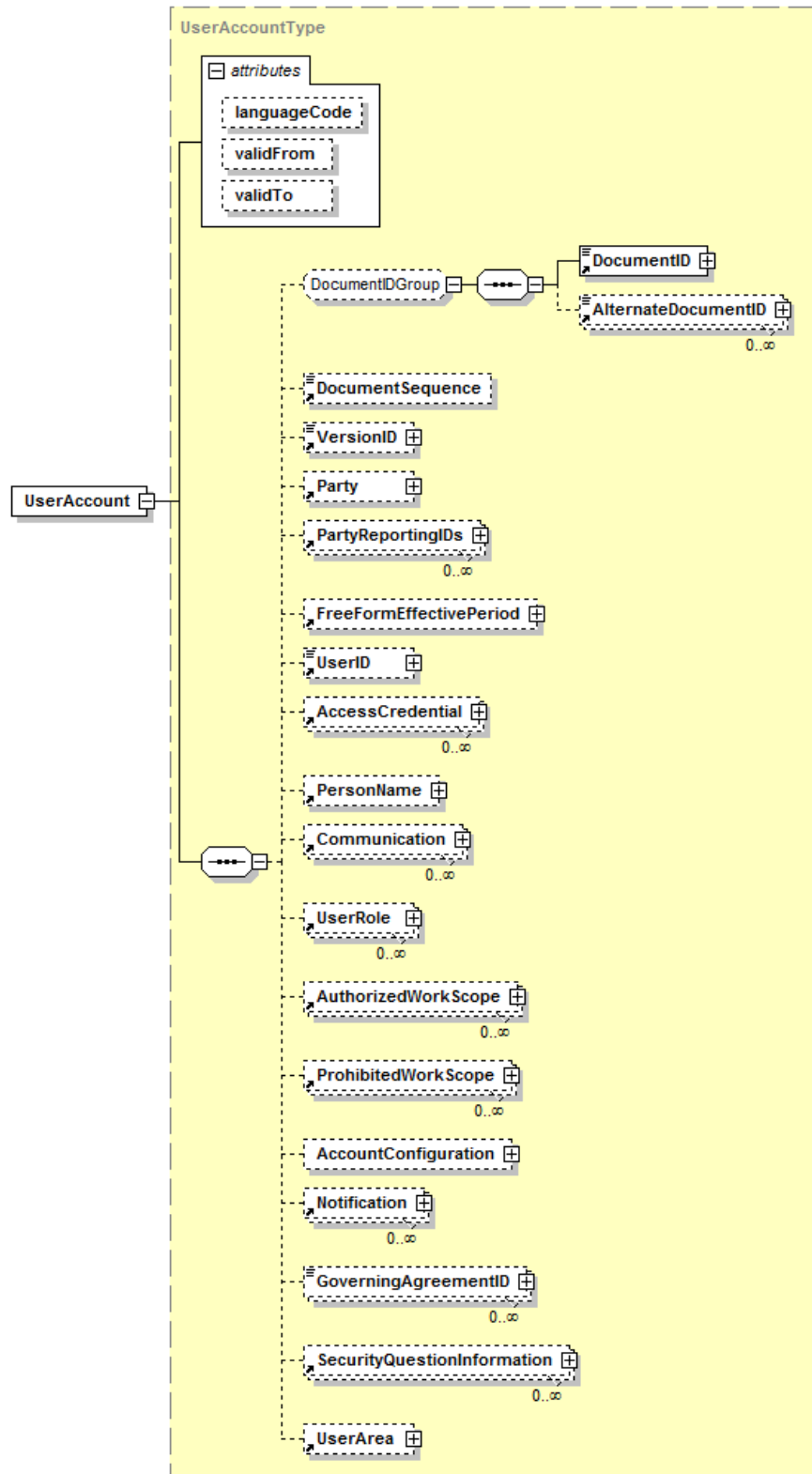
Indicative Data





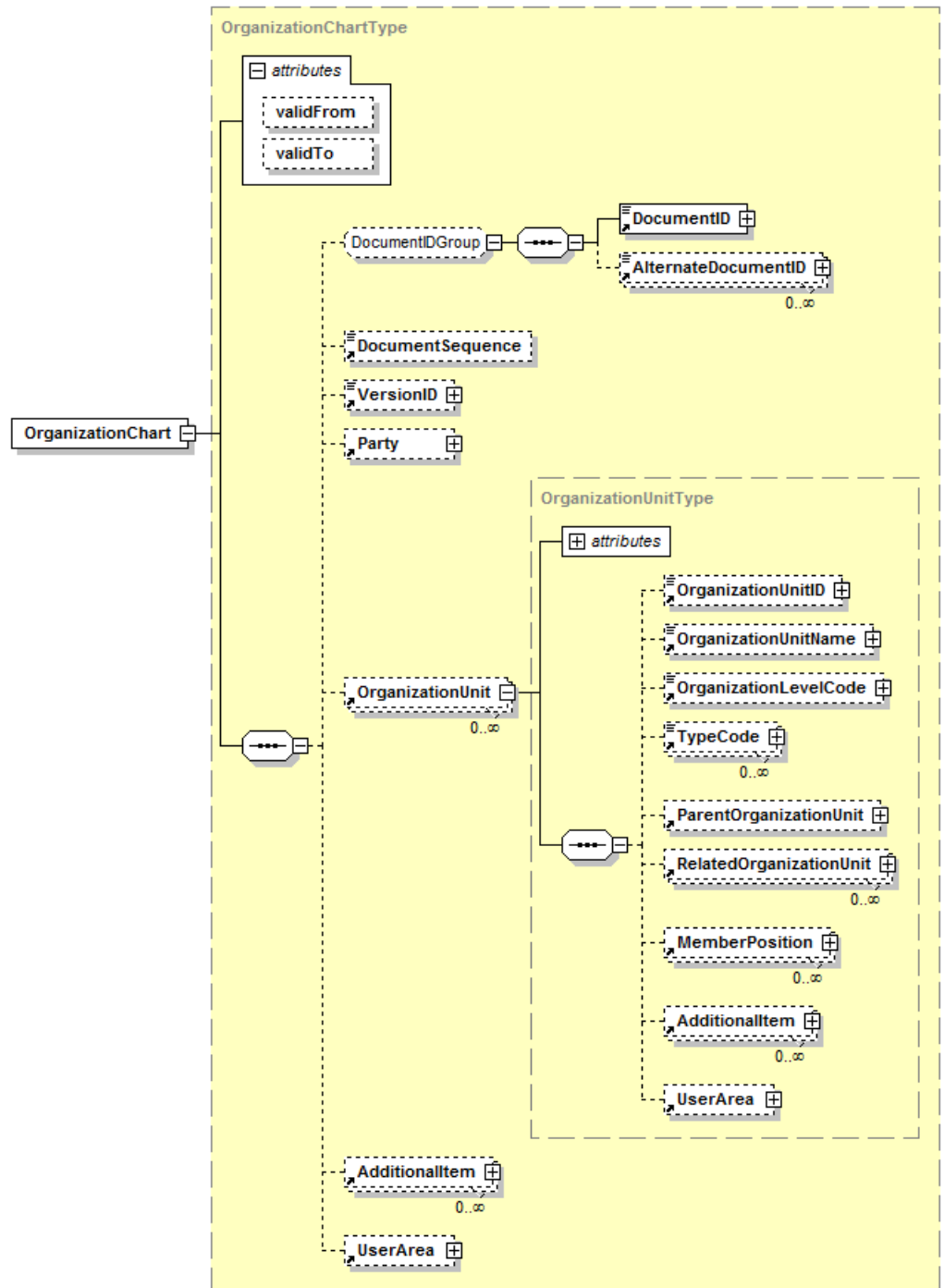
Generated by XMLSpy

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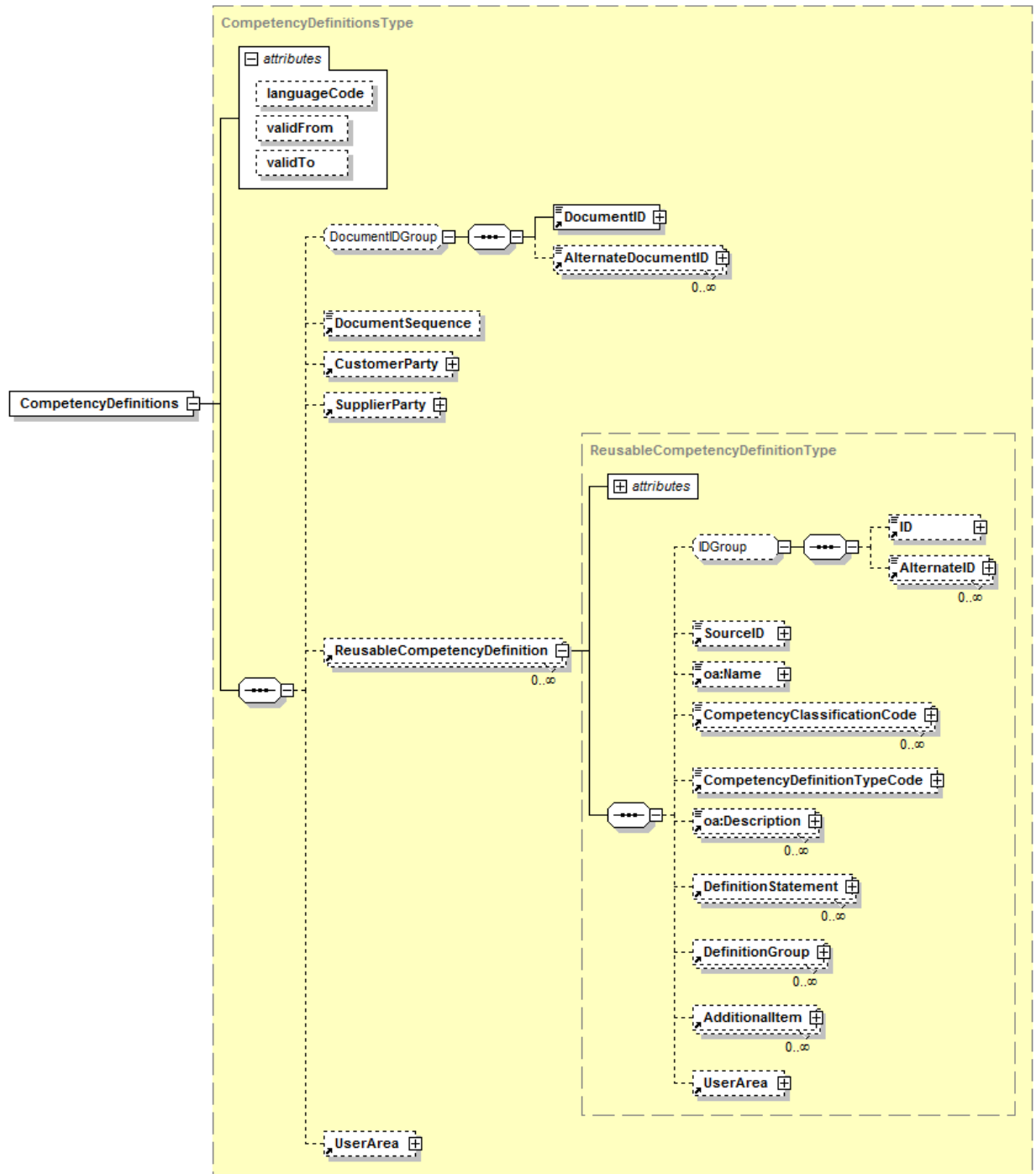
Generated by XMLSpy

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Generated by XMLSpy

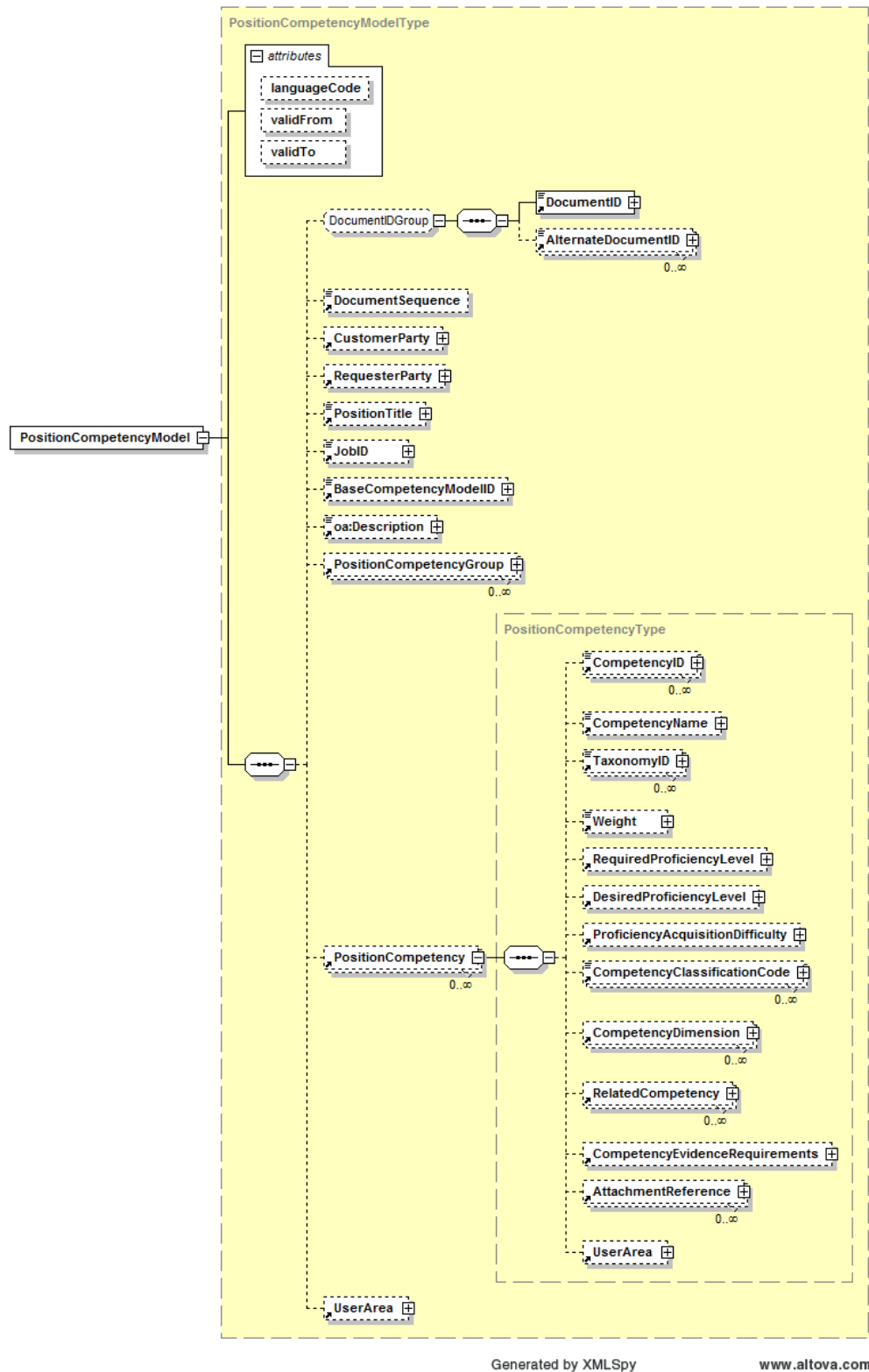
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Generated by XMLSpy

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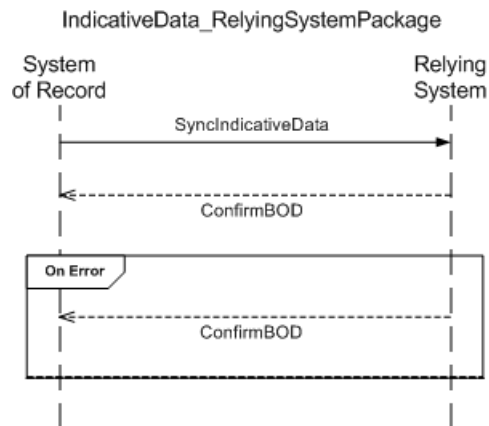
Position Competency Model



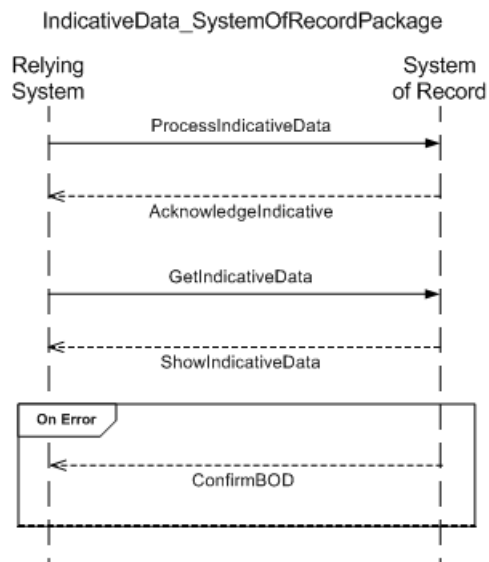
Appendix C: Business Object Document Diagrams

Indicative Data

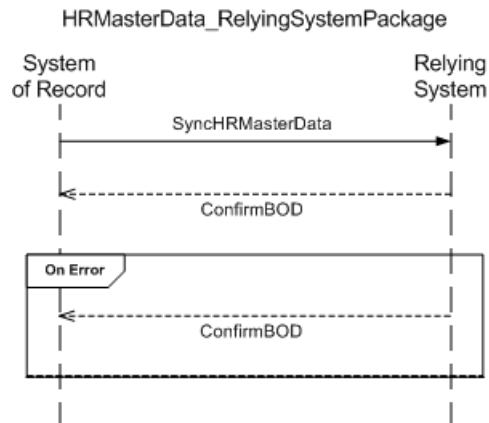
A service which enables a system of record, such as a core HR system, to sync indicative data with a relying system, such as a payroll or benefits outsourcer.



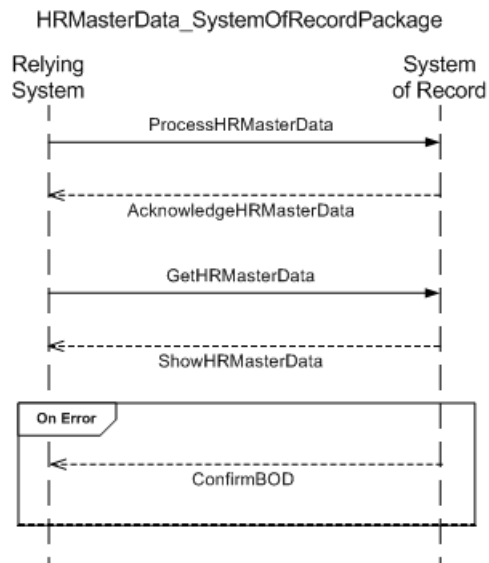
A service that a system of record, such as a core HR system, would host to handle data management requests from a relying system, such as a payroll or benefits outsourcer.



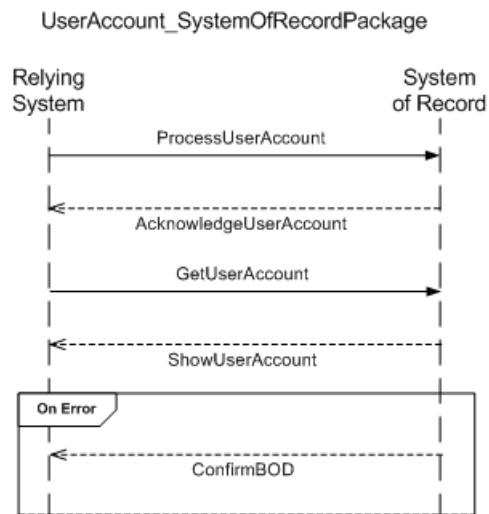
A service that a "relying system" would host to handle "Sync" operations with a system of record. Enables a system such as a core HR system to sync HR master data with other systems.



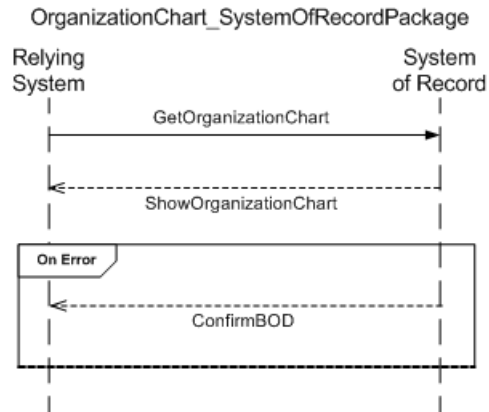
A service that a system of record would host to handle data management requests regarding HR master data from a relying system (a system that is not the owner of the data).



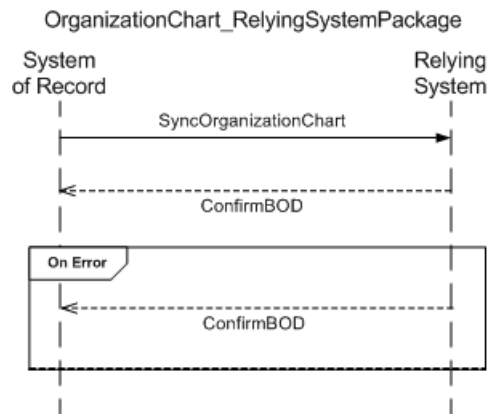
A service that a system of record would host to handle data management requests related to user accounts from a relying system. For example, an applicant tracking system may request adds, deletes, and changes to users (hiring managers, HR staff) of a partner system (for example, a screening service provider).



A service that a system of record would host to handle "read" requests for organization chart data from a relying system.

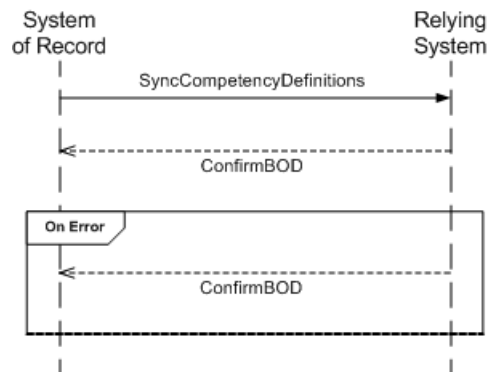


A service that a relying system would host to "Sync" organization chart data with a system of record.



A service that a relying system would host to handle "Sync" operations with a system of record. The system of record would be the supplier of the competency content whereas the relying system might be another talent management system (recruiting, employee performance management, etc.).

CompetencyDefinitions_RelyingSystemPackage



Position Competency Model

A service that a relying system would host to handle "Sync" operations with a system of record. The system of record would be the supplier of position competency model content whereas the relying system might be another talent management system (recruiting, employee performance management, etc.).

PositionCompetencyModel_RelyingSystemPackage

