

# Frameworkx Standard

## Information Framework (SID)

*Party Business Entities*

**Information Framework Suite**

**GB922 Party**

**Release 19.0.1**

**October 2019**

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# 1 Business Entities

## 1.1 Party ABE

This Party ABE defines information about companies and people. Implementations of this model are responsible for ensuring that the relevant privacy legislation standards are adhered to in the countries that will use the implementation.

### 1.1.1 Introduction

At the most fundamental level [Zachman], [Coad-Archetypes] the world can be thought of as comprising of entities that answer the 5 fundamental questions.

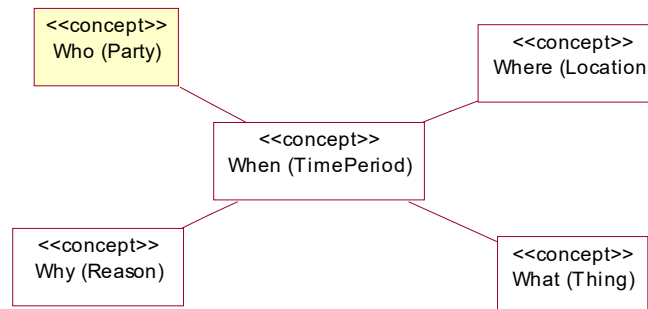


Figure P.00 – Showing how Party fits in

This section of the SID answers the question “who?” and deals with people and organizations in the context of the eTOM, which looks at processes from a Service Provider’s point of view.

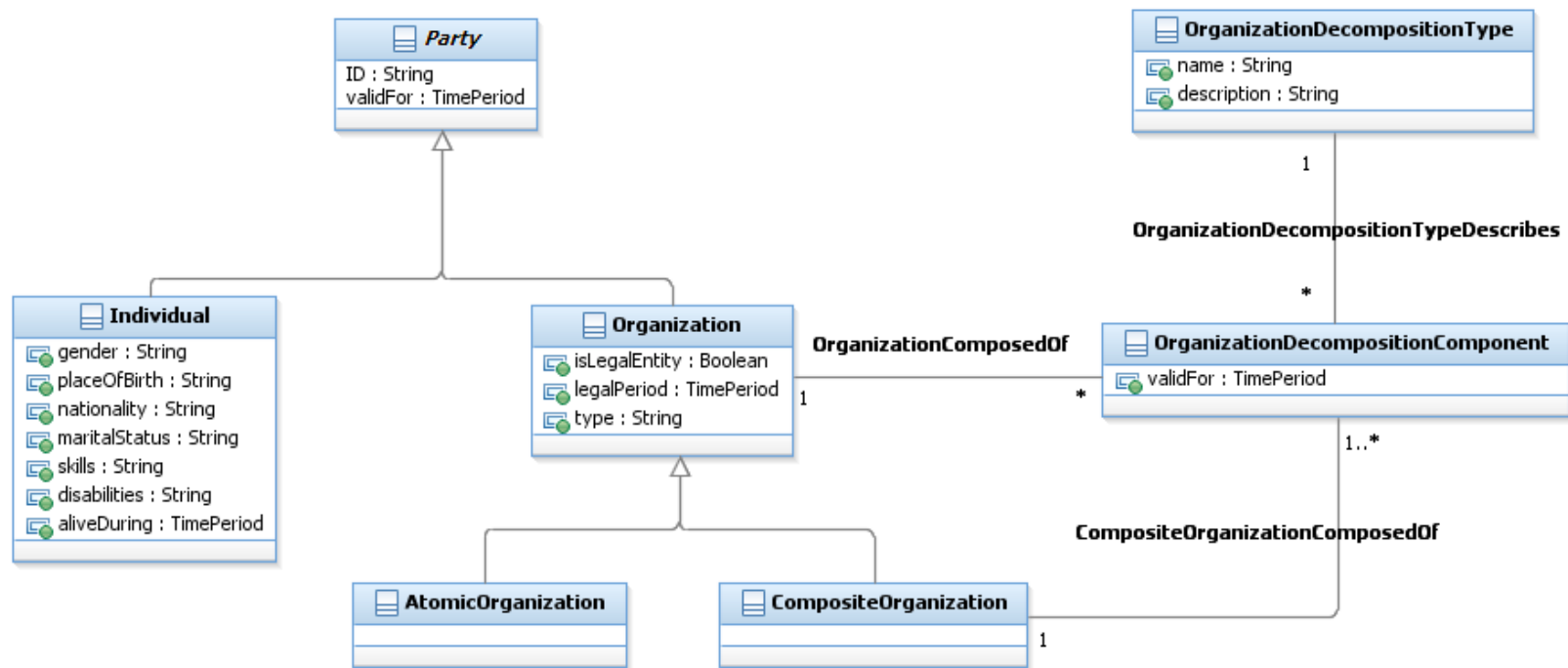
“The eTOM is a business process model or framework that provides the enterprise processes required for a service provider.” [eTOM]

Organizations can be internal (department, subsidiary) or external to the Service Provider (suppliers, customers).

Individuals can be internal (employees, board members) or external to the Service Provider (customers, organization contacts, shareholders).

### 1.1.2 Party Fundamentals

The following figure shows our starting point for the model, based on [Fowler-AP], and shows a Party representing an Individual or Organization.





**Figure P.01 – Basic Party Model**

In this model, both organization and organization unit (e.g. consortium, parent company, subsidiary, division, department, branch or team) are represented by the Organization entity, which should be subclassed as required.

Organization can also represent government agencies, clubs, societies, charities and educational & religious organizations.

Whilst Party is not a term often used in the business, the concept of “a person or a company” is often heard, and the Party abstraction makes the domain model easier to understand.

Stephen Palmer [Coad Letter] uses the definition that “A party is a legal entity, something or someone that can be sued in a court of law”.

AtomicOrganization is a type of Organization that does not have any subordinate Organization. That is, an AtomicOrganization is a leaf-level Organization. CompositeOrganization is a type of Organization that is formed by aggregating other Organizations, which may be atomic Organizations or OrganizationDecompositionComponents. OrganizationDecompositionType describes and specifies certain type of organization decomposition. OrganizationDecompositionComponent describes certain component after organization decomposition based on defined type by OrganizationDecompositionType.

### **1.1.3 Party Names**

An individual is referred to by their name. This name can change over time (e.g. After marriage, by deed poll) and to allow for this we will model an individual's name as a separate entity. Similarly, organizations can change their names (e.g. from Telecom to Telstra) and we will also model organization names as a separate entity. Note that this model does not provide support for individual name or organization name aliases. If aliases are required, they will be added to a later version of this model.

“A name is an informal way of identifying an entity” [Fowler-AP]



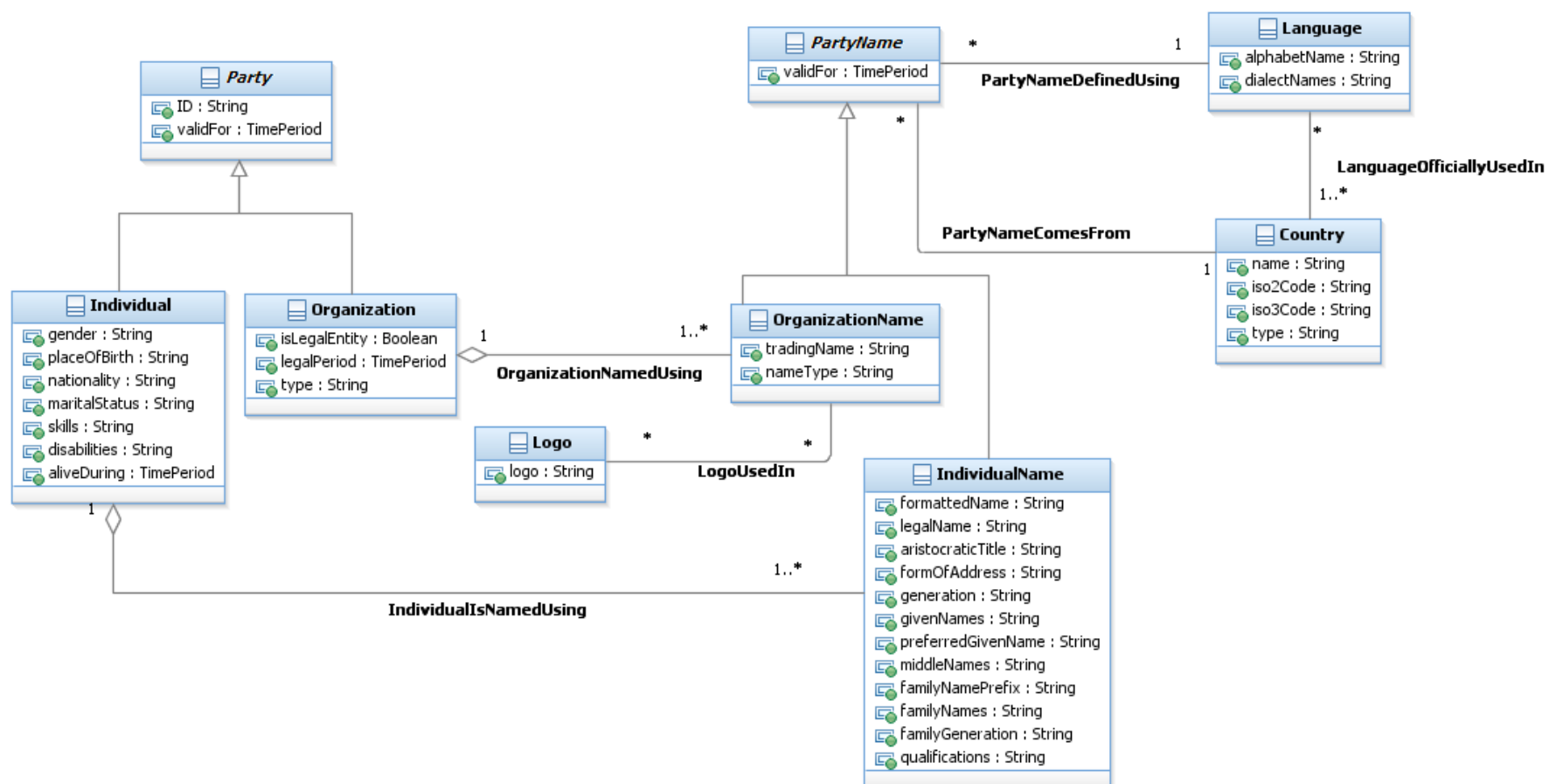


Figure P.02 – Naming for Parties

### 1.1.4 Party Identification

As well as being having names for Parties, we also need more formal ways of identification [Coad Letter]. When a customer applies for a service, for instance, they may need to provide some proof of identity. The Party Identification entities allow for this information to be stored and accessed as required.

Note that the Party Identification structure has been defined in a similar manner to Party Name.

Concrete subclasses to Individual Identification and Organization Identification should be created as required. Figure 3 shows some common example concrete entities.

The Party Identification Specification entity may be implemented as a Policy, using a Rules Engine or via a set of Templates that detail a valid set of Identification entries sufficient for a given purpose.

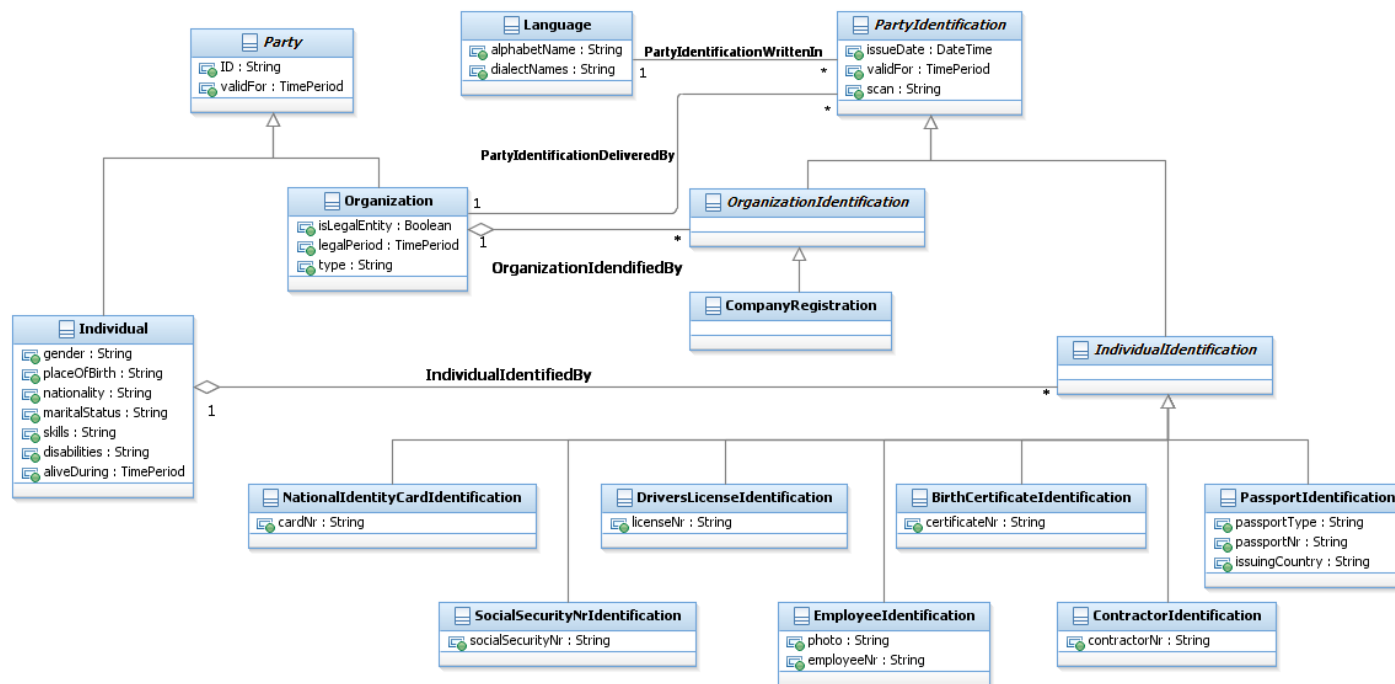


Figure P.03 – Party Identification



## 1.1.5 Party Roles

### 1.1.5.1 Roles Played by Parties

People and Organizations exhibit complex behavior. A lot of the behavior can be grouped, based on a particular context, or participation in a certain interaction.

For instance, a child at school will behave as a student and an adult may behave as a teacher. A person playing cricket may behave as a bowler, a batsman or as a fielder or wicket-keeper.

These behavior groups will change over time and will cause problems if we model them using inheritance / specialization. Also, we need to allow for the fact that a Party may play more than one role at any given point in time (an employee may also be a customer; a graduate student may also be a tutor).

By modeling PartyRole as a separate concept from Party, we allow for proper representation of these complex sets of behaviors.

When looking at the eTOM, we see that Parties play roles in the context of an interaction to provide Customer value.

This interaction may be per service or per event (e.g. a phone call).

*“Note that these are roles and that individual enterprises can adopt different roles in different value networks. Roles represent activities that businesses can engage in and, for example, a service provider may be the customer-facing service provider in one value network and a third party (e.g. wholesale) service provider in another. Relationships are established between the roles, hence the business relationship context model. In today’s fast-moving marketplace, relationships can be very short-lived compared with the more static relationships of the traditional telecommunications market. By focusing on roles rather than organizations, a more flexible business relationship context model can be achieved. Enterprises can adopt and shed roles dynamically, but the relationships between the roles are established, so the adoption of a particular role will also define the relationship of the enterprise playing that role towards another role player.” [eTOM]*

The roles defined in the eTOM are shown as subclasses of PartyRole in Figure P.04 – Party and the Main eTOM Roles.

Note:

- To support these roles, we will use the “Role Object” pattern [Fowler-Role] [Larman].
- The PartyRole entity represents the common behavior by a Party when acting in the role.

- This model explicitly separates the information held about individuals and organizations from the roles that they perform and the relationships between the roles.
- PartyRole is shown with an id attribute. Existing data may have different id formats for different role types, e.g. “customer number”, “supplier id”, “employee nr” ...
- In a value fabric, roles may not be exclusive, e.g. a customer may also be a supplier
- In a number of cases we are interested in parties playing a combination of roles, e.g. staff who use our products get staff discount, suppliers who use our products are “preferred suppliers”
- If the number of roles becomes very large, then it may be necessary to create “sub-roles” so that the inheritance tree does not become unmanageable.

Parties & PartyRoles may be recorded, even if there is no interaction with the Service Provider.

e.g. a Service Provider may wish to keep a list of Phone Dealers (including competitors) to help in determining shop placements. The Organizations are stored, with a role of “Phone Dealer”, but there may never be any “Interaction” between the dealers and the Service Provider.

Other roles are governmental entities, such as regulators, law enforcement, and tax. Shareholders also have a place. Such Business Process Framework process areas, such as Stakeholder and External Relations Management and Enterprise Risk Management (Fraud Management processes often engage Law Enforcement parties) and Shareholder & External Relations Management have various modes of engagement with these.

Examples of roles played by parties include those of interest, such as competitors, sales prospects that provides value directly or indirectly, such as service providers, operators, cloud brokers, infrastructure providers, application developers.

So, there is a need to maintain information about many different roles played by parties and for a common set of business process elements with which many roles are involved.

The introduction of a Party ABE in the Common domain with the PartyRole entity in it simplifies interactions among business enablers, enabling other organizations playing new/different roles in the value fabric to be represented in the model in their specific domain as specialization of PartyRole. Companies become more open to sharing information and process visibility. And the community of actors self-select themselves into like-minded communities of parties.

Process flows that show the roles engaged in a scenario or use case can take advantage of the common process elements. It contains information about the entities whose lifecycles are managed by these process elements.

It keeps Frameworkx sufficiently agile to not require major structure changes to four of the component frameworks when new roles are introduced.



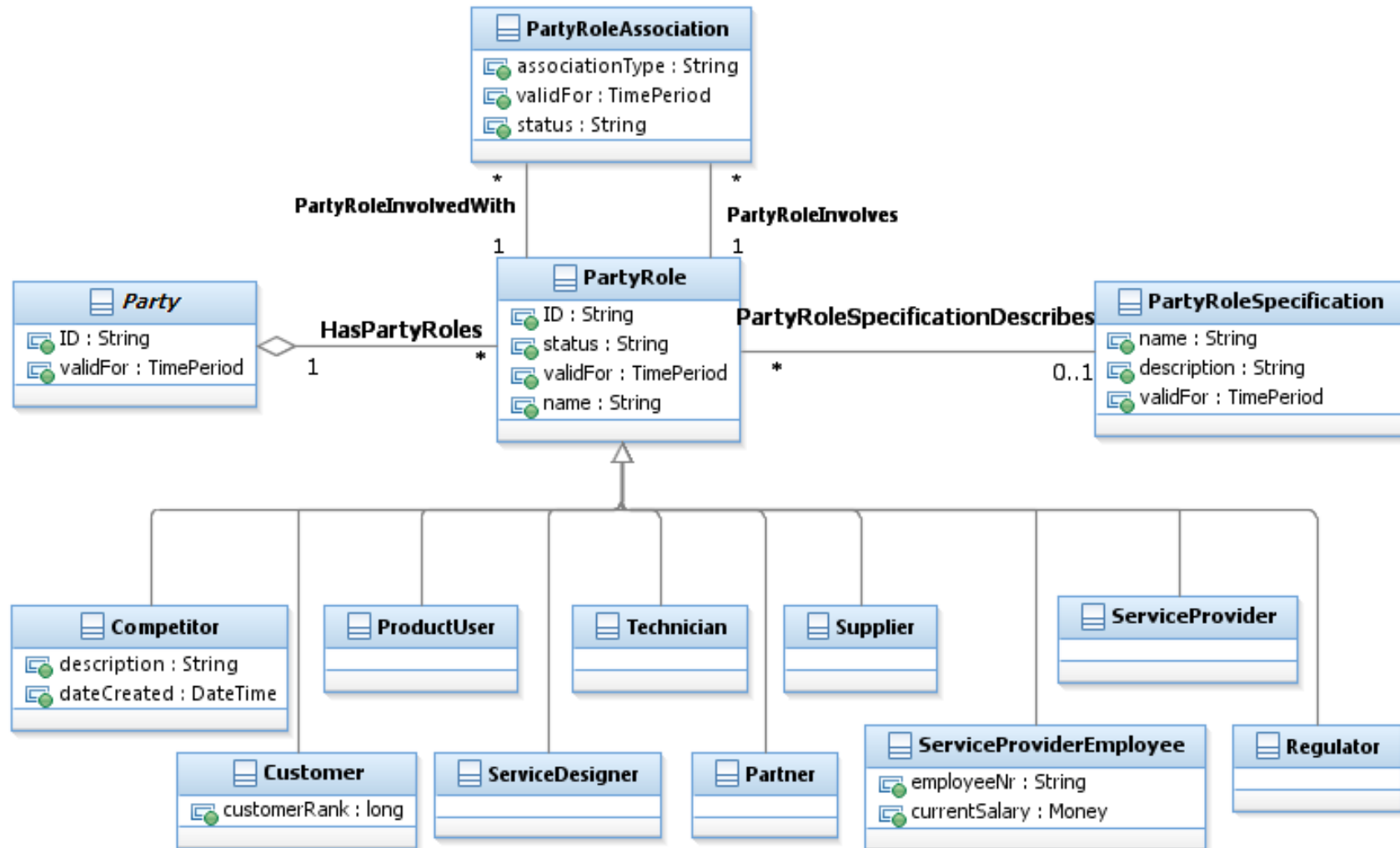


Figure P.04 – Party and the Main eTOM Roles

The Market Sales Domain roles presently identified are:

- **MarketingManager** : Agreed & done: A MarketingManager is a role played by a Party. A MarketingManager is responsible for the Marketing management process. It is the process of developing strategies and planning for product or services, advertising, promotions, sales to reach desired customer segment.
- **SalesAgent** : Agreed & done: A SalesAgent is a role played by a Party. A SalesAgent is responsible for selling the Service Provider's ProductOfferings to wholesale and / or retail customers.
- **Competitor**: A Party playing a PartyRole that offers ProductOfferings similar to the enterprise's ProductOfferings in a MarketSegment.

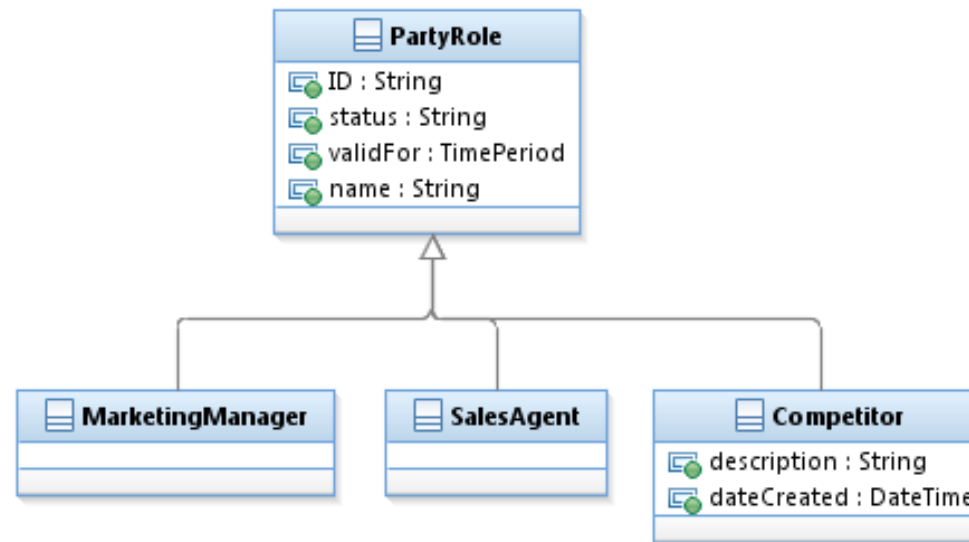


Figure MS.00 - Market Sales Roles

The Customer Domain roles presently identified are:

- Customer: A person or organization that buys products from the enterprise or receives free offers or products. This is modeled as a Party playing the role of Customer. A Customer is a type of PartyRole. Customers can also be other service providers who resell the enterprises products, other service providers that lease the enterprise's resources for utilization by the other service provider's products and services, and so forth.
- Buyer: A PartyRole played by a Party, who imposed a Supplier to provide a deliverable by a formal Agreement (Commitment).
- CustomerServiceRepresentative: Agreed & done: CustomerServiceRepresentative (CSR) is an Employee from the Operator or Dealer. A CSR is in charge of customer relationship, may act on behalf of the customer for sales and in support of the customer.

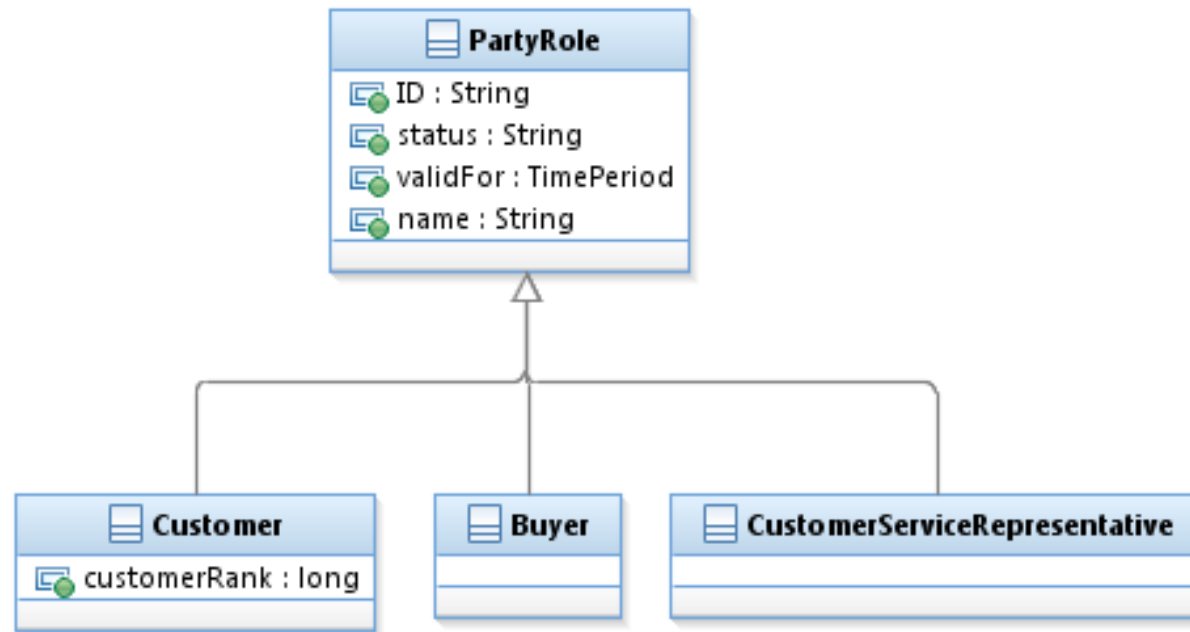


Figure C.00 - Customer Roles

The Product Domain roles presently identified are:

- **ProductUser:** A ProductUser is a type of PartyRole corresponding to the role of using a NetworkProduct.
- **ProductManager:** Agreed & done: A ProductManager is a party role which is responsible for the development of products for an organization. Product managers own the business strategy behind a product, specify its functional requirements and generally manage the launch of corresponding ProductOfferings. They coordinate work done by many other functions (like software engineers, data scientists and product designers) and are ultimately responsible for the business success of the product.

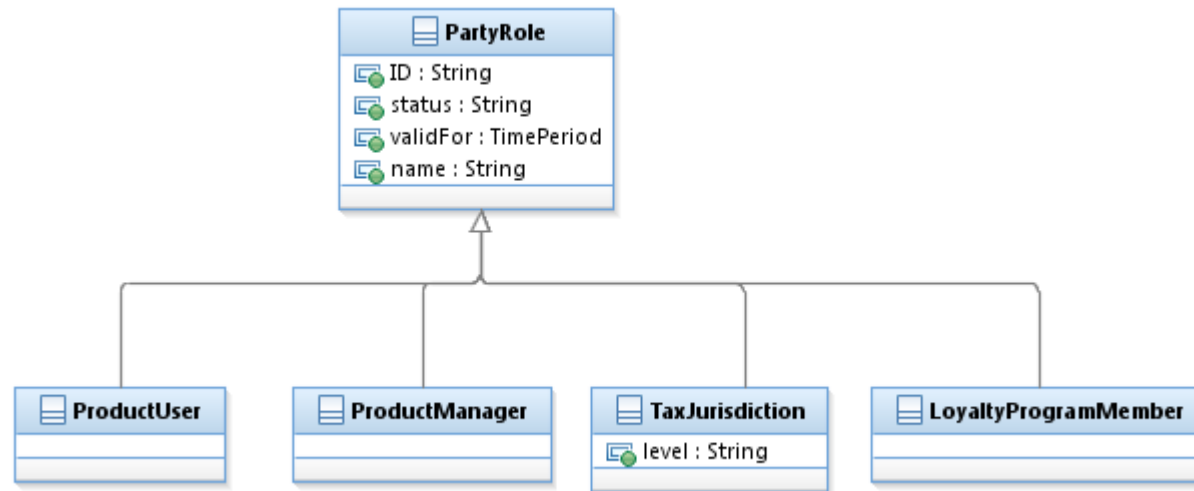


Figure Pr.00 - Product Roles

The Service Domain roles presently identified are:

- **ServiceDesigner:** Agreed & done: A ServiceDesigner is a party role which is responsible for the design of the Service Provider' know-how (CustomerFacingServiceSpecs). To be valid a know-how needs to align with one or more technical solutions (ResourceFacingServiceSpec or Supplier's ProductSpec).
- **TechnicalSolutionDesigner:** A TechnicalSolutionDesigner is a party role which is responsible for the design of technical solutions (ResourceFacingServiceSpec). To be valid a technical solution needs to align with one or more Resources (ResourceSpec or Supplier's ProductSpec).

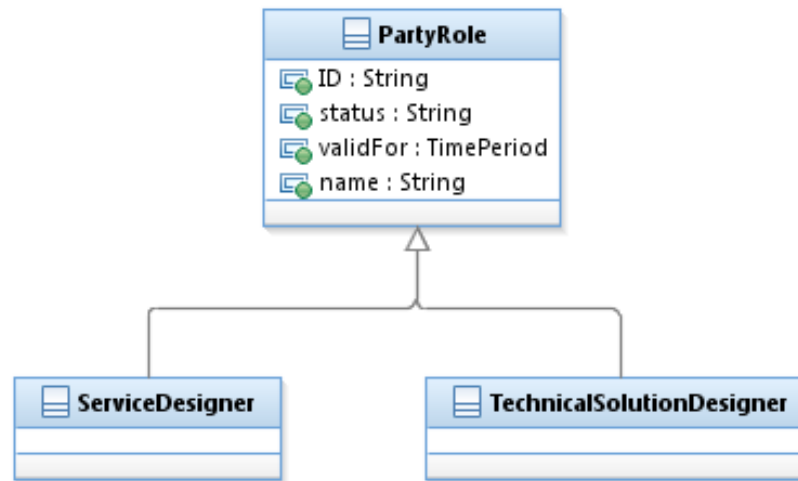


Figure SO.00 - Service Roles

The Resource Domain roles presently identified are:

- Technician: An individual who possesses specific technical training and competence in a specific area, such as digital services.
- ResourceInstaller: An individual who installs PhysicalResources. It specifically doesn't provide all of the capabilities of a Technician role, but also represents a less costly PartyRole. Specifically, a ResourceInstaller is limited to simple physical installation of Equipment. A ResourceInstaller does not configure Resources or Services.
- TelecomTechnician: An individual who possesses specific technical training and competence in telecommunications.

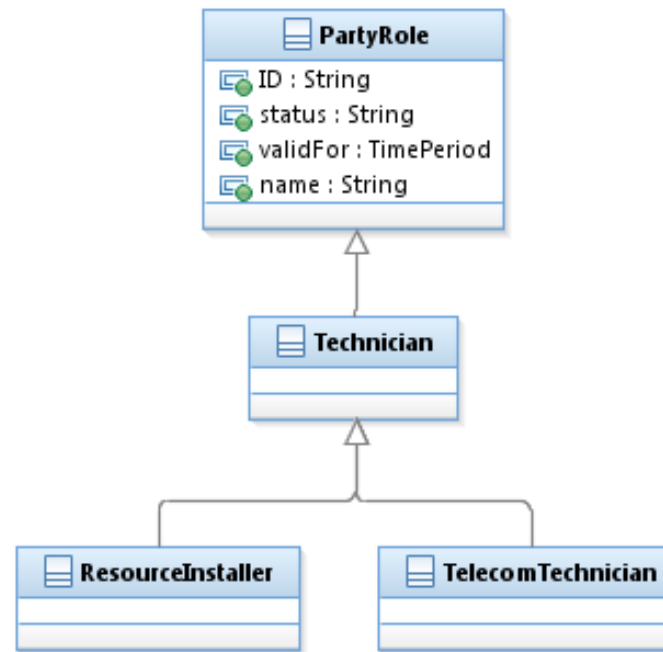


Figure R.00 - Resource Roles

The Business Partner Domain roles presently identified are:

- Partner: A PartyRole, played by a Party being an equitable partner in a business interaction with other parties, playing the Partner role. Usually all Partner have the same (or even compatible) business objectives.
- Supplier: A PartyRole played by a Party, who commits to provide a deliverable to a Buyer by a formal Agreement (Commitment)

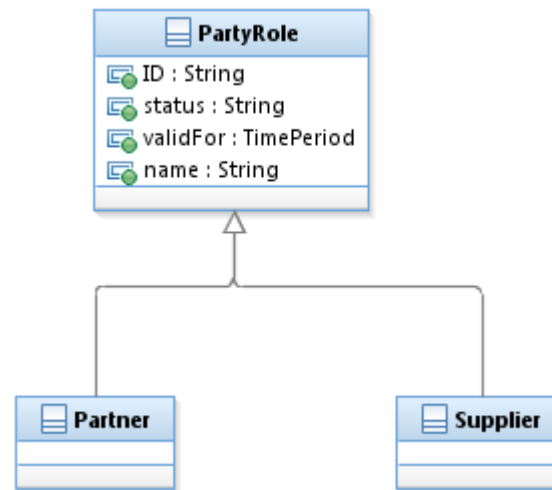


Figure BP.00 - Business Partner Roles

The Enterprise Domain roles presently identified are:

- ServiceProvider: An organization or individual which offers products to others in exchange for payment in some form.
- ComplementaryProvider: A type of ServiceProvider that complements another provider.
- ThirdPartyProvider: A ServiceProvider besides the two primarily involved in a situation.
- ServiceProviderEmployee: A Service ProviderEmployee is an Individual who is employed by the Service Provider for wages or salary. This is modeled as an Individual playing the role of ServiceProviderEmployee . A ServiceProviderEmployee is a type of PartyRole.
- Regulator: A party that supervises a particular industry or business activity

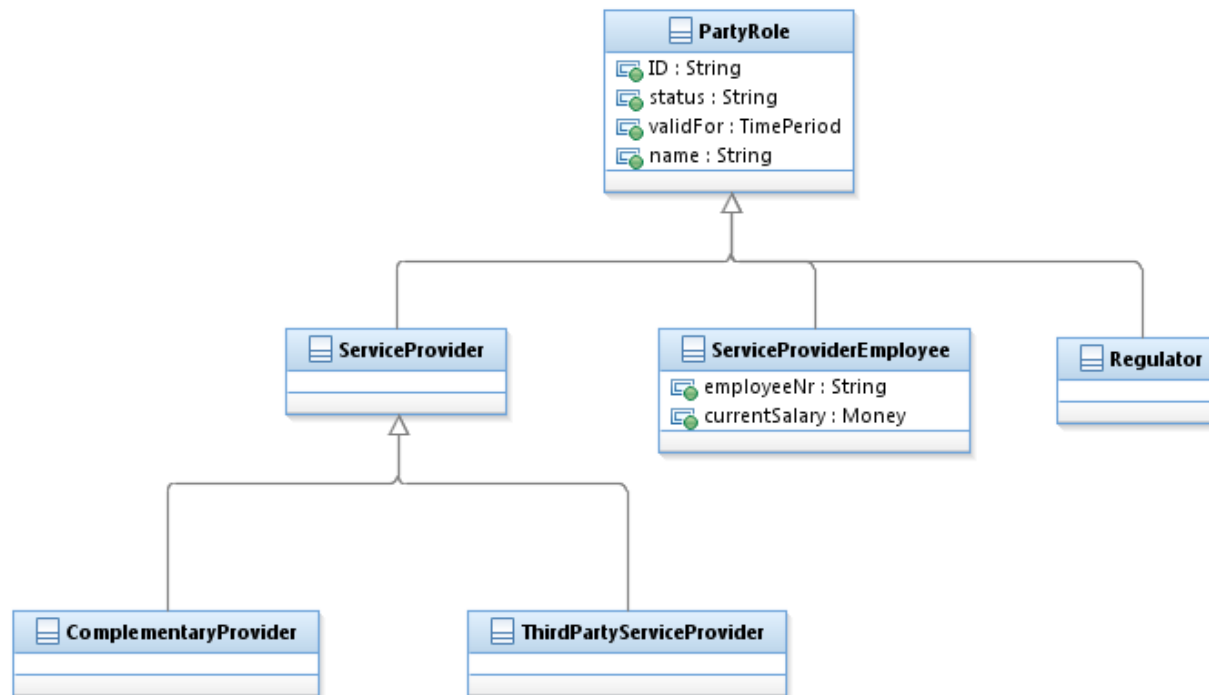


Figure E.00 - Enterprise Roles





In addition to roles identified in specific Domains, the Common Domain contains roles related to common ABEs. The Common Domain roles presently identified are:

- **ProjectPartyRole:** A role played in the context of a Project.
- **WorkforceEmployeeRole:** This is a PartyRole that represents individuals who are involved in the workforce process as employees with particular skills. For example, Field Technician, Network Engineer, Supervisor, etc.
- **WorkforceOrganizationRole:** This is a PartyRole that represents organizations involved in field operations. It can be the CSP Field Technician department itself, or a 3rd-party contractor company. Note that OrganizationRole has Calendar, inherited from Calendar of PartyRole.
- **Community:** A Community is a PartyRole, played by an Organization. CommunityMembers can commit to a Community, contribute Contributions to the Community and consume Assets from a Community.
- **CommunityMember:** A CommunityMember is a PartyRole, played by an Individual, who is committing to a Community, contributes to it and consumed Assets from the Community.
- **CommunityAdministrator:** A CommunityAdministrator is a PartyRole, played by a Party, who administers a Community.

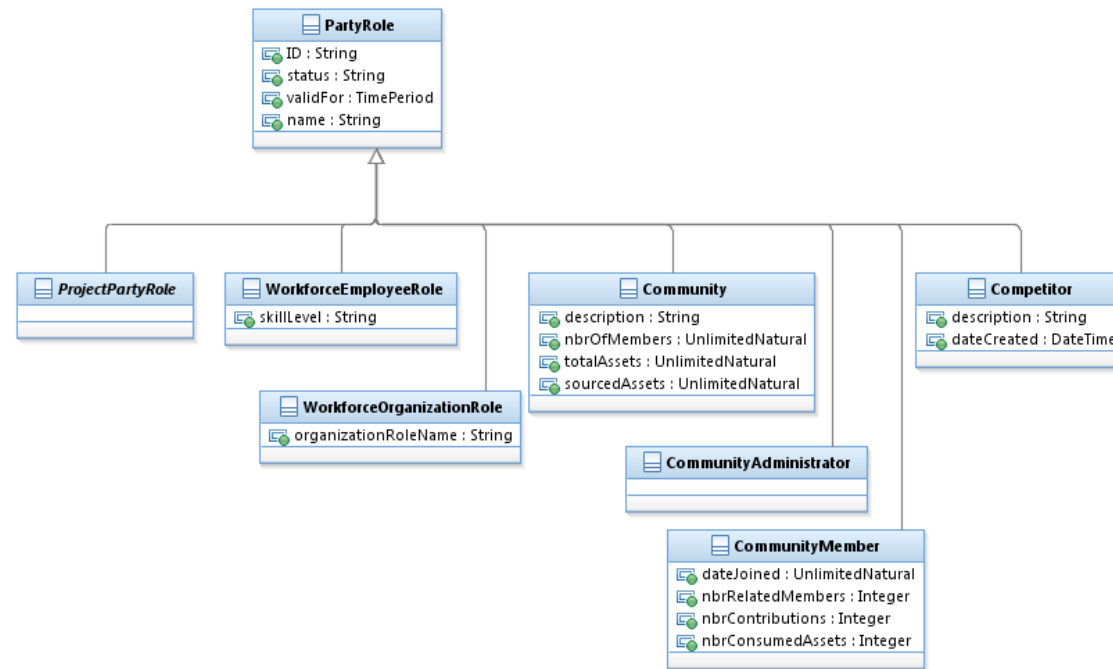


Figure P.00 PartyRoles in Common

### 1.1.5.2 Party Role Specifications

PartyRole entities can be modeled explicitly as shown in the previous section. However, explicitly modeling them requires a change to the model which can impact databases, interfaces, and applications. The PartyRoleSpecification and PartyRole entities represent the application of the EntitySpecification/Entity pattern.

This pattern enables new roles to be added for parties without explicitly modeling them. There is also an association with the generalized Characteristic ABE that enables attributes for specific instances of PartyRoleSpecifications to be defined as shown in Figure P.04b - Party Role Specification. More information about the Characteristic ABE can be found in the Root Business Entities guide book.

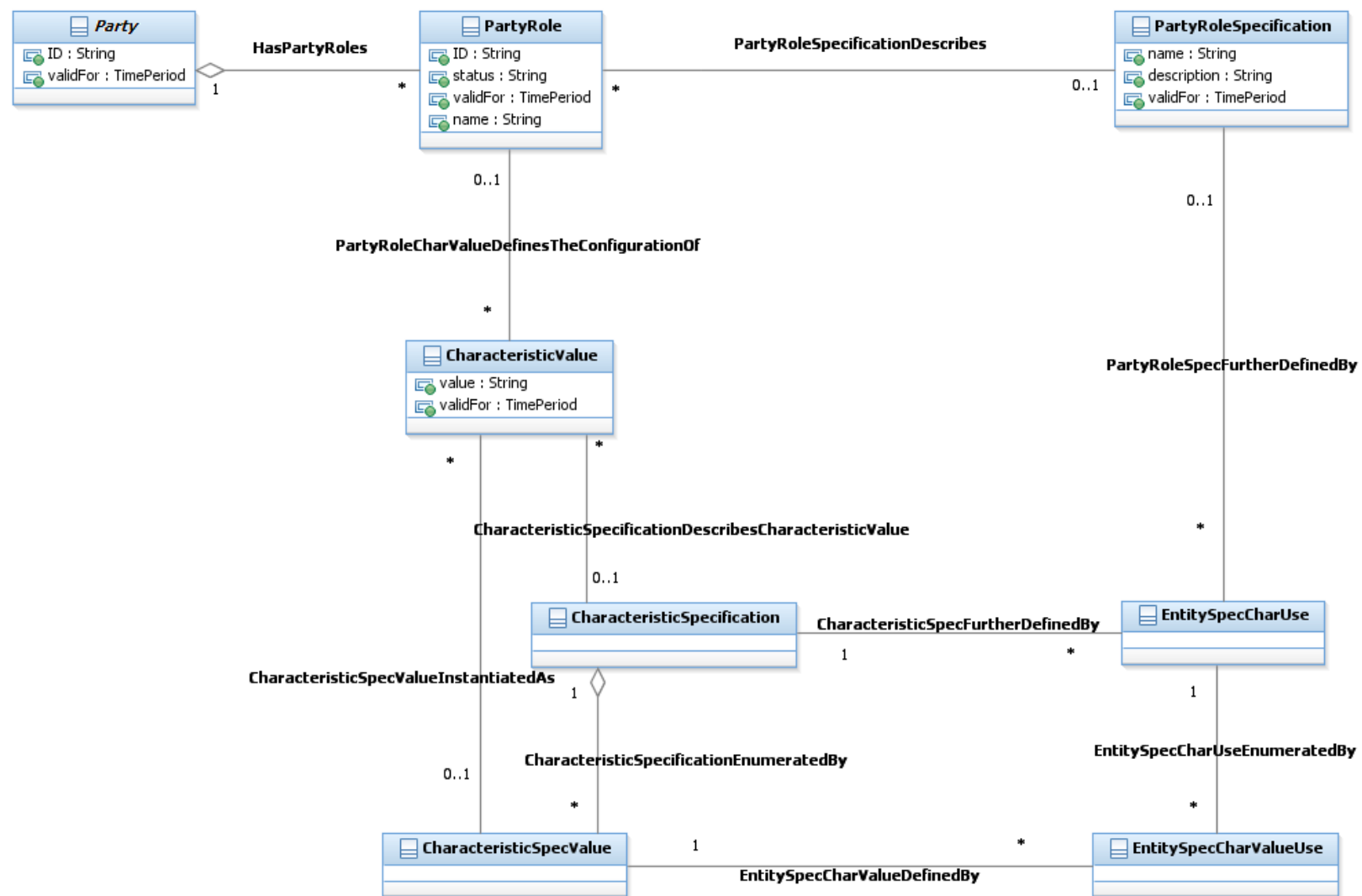


Figure P.04b - Party Role Specification

### 1.1.5.3 Business Interactions between Parties

PartyRoleCategory allows for PartyRoles to be categorized (e.g. into Customer Demographics)

A BusinessInteraction will involve one or more Parties playing roles participating in the value fabric to provide Customer value.

A BusinessInteraction may also have links to Product (through BusinessInteractionItem) & Location.

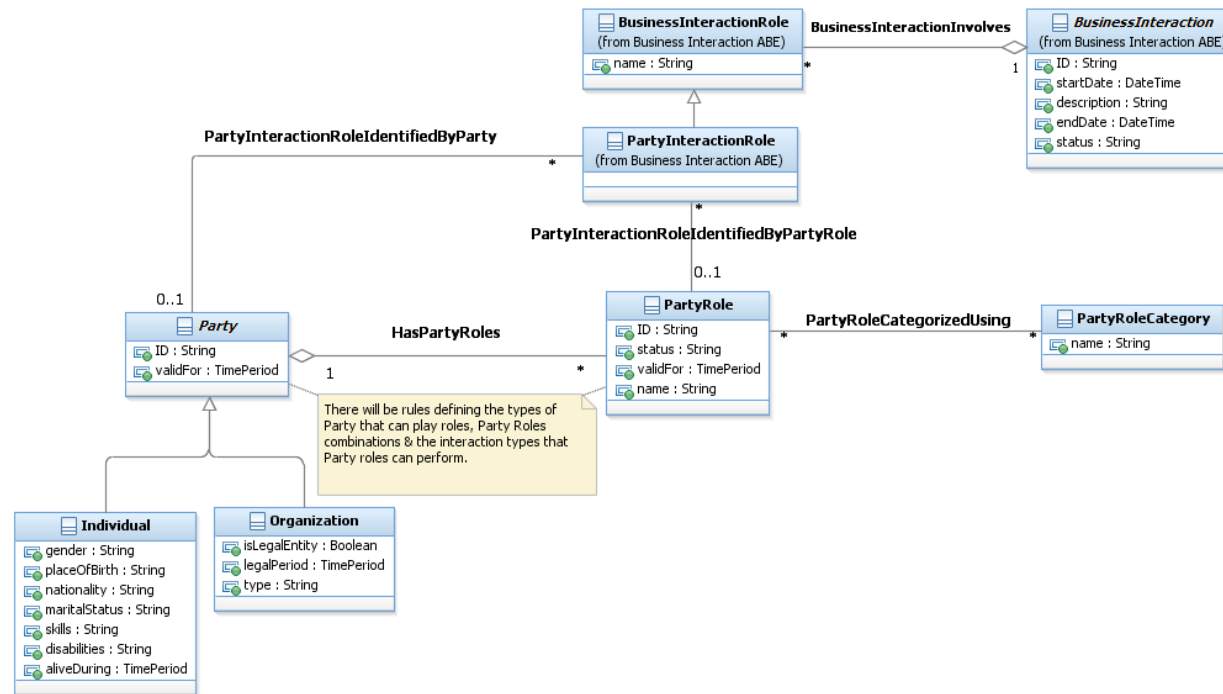


Figure P.05 – Parties Interact Via Their Roles

For more information on Business Interaction refer to GB922 Business Interaction guide book.

#### 1.1.5.4 Associations between Party Roles

We need to be able to show associations between Parties playing roles that are not directly involved in the value fabric.

Examples of these associations include

- Organizational associations in the service provider's own business (organization unit – employee, organization unit – organization unit)
- Associations in other Organizations participating in the value fabric (organization unit – employee, organization unit – organization unit)

PartyRoleAssociation must not be linked to Location, Product or Agreement.

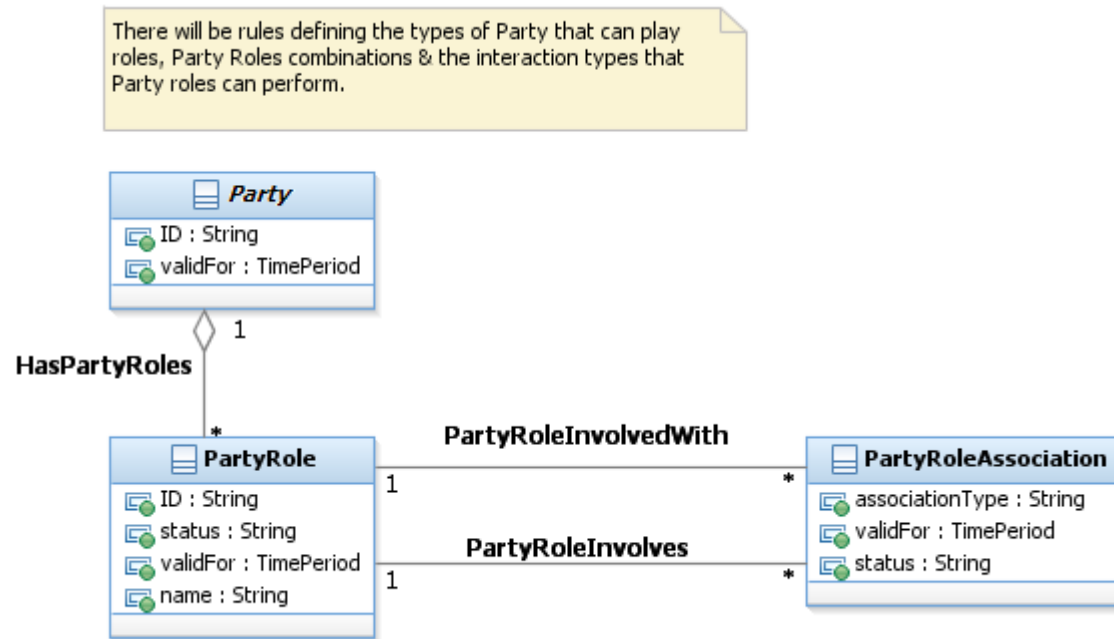


Figure P.06 - Parties Can Be Associated Via Their Roles

#### 1.1.5.5 PartyRoles played in a context

Parties may play PartyRoles in a specific context. This context is represented by a PartyRoleGroup that groups PartyRoles. A PartyRoleGroup might be a Family, a household, a Club, a Friends' group...

A PartyRoleGroup may or may not represent an Organization that has a legal standing or not, meaning they may not have a formal means to identify them (think Facebook groups).

A PartyRoleGroup is described by a unique PartyRoleGroupSpecification.

A PartyRoleGroupSpecification specifies for a type of PartyRoleGroup, the applicable rules for the creation of a PartyRoleGroup:

- the type of PartyRole (PartyRoleSpecification) that might be part of a corresponding PartyRoleGroup,

- rules (PRGSpecRule) applying for the Party being part of the PartyRoleGroup through their PartyRole such as "all Parties must live at the same location to be considered as member of the same Family"

The type of PartyRoleGroupSpecification might be a Family, a Club, a group of Friends...

- A family can include a number of Individuals. The individuals are part of this family (PartyRoleGroup) via PartyRoles such as father, mother, son, and daughter...
- Individuals can also be part of PartyRoleGroups such as a Bridge Club, with PartyRoles such as Member, Chairman/Chairwoman, Treasurer, etc.

A PartyRoleGroupSpecification may describe one or many PartyRoleGroups.



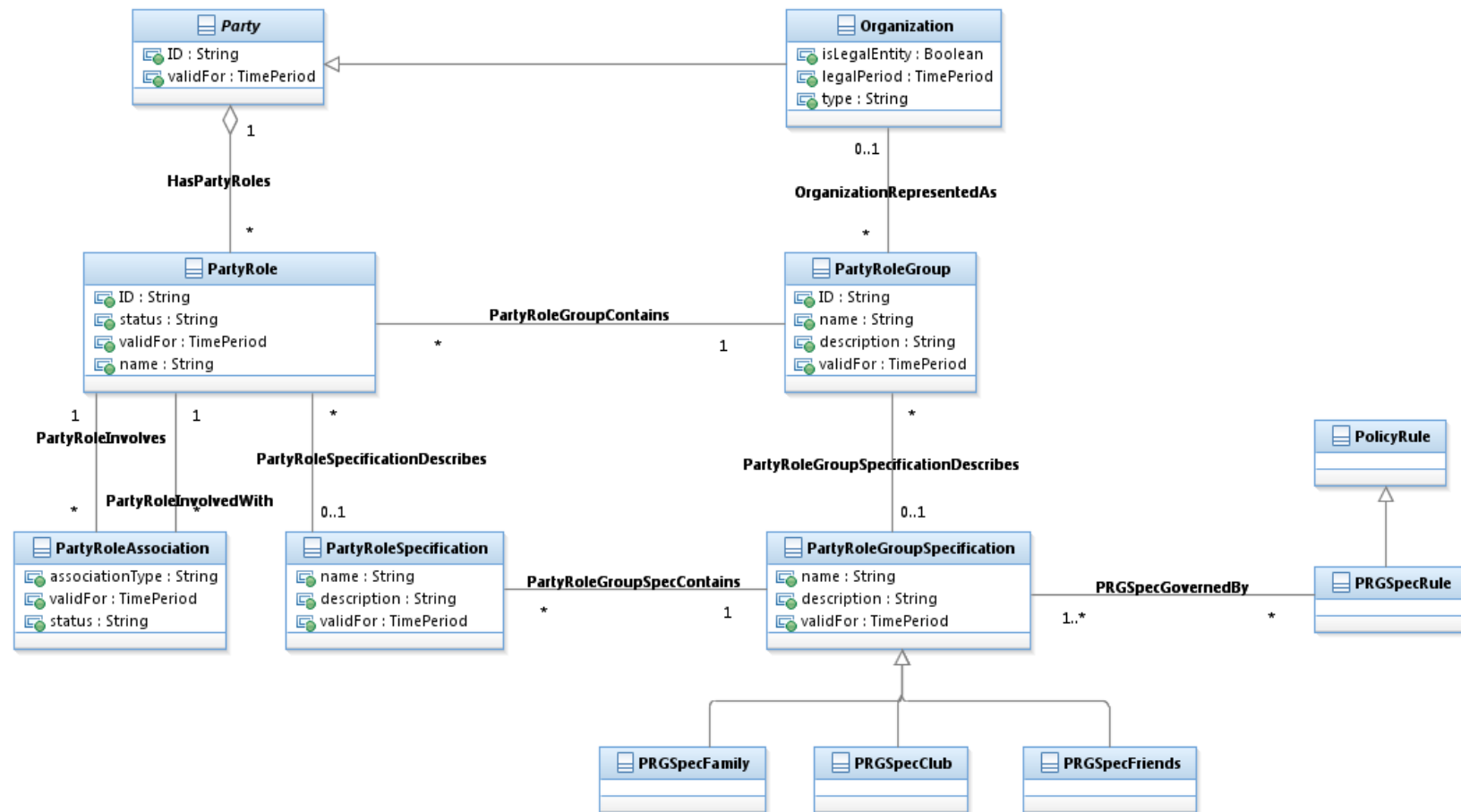


Figure P.06a – PartyRoleGroup

To illustrate, consider an example well-known to all of us.

The Smith' Family is composed of four members

- Mr. John Smith, the father
- Mrs. Mary Smith the mother,
- Mr. Richard Smith the son,
- and Miss Kathy Smith the daughter.

Each person plays a specific role in the Family.

Mary Smith also plays the role of Chairwoman and Member in a Bridge Club.

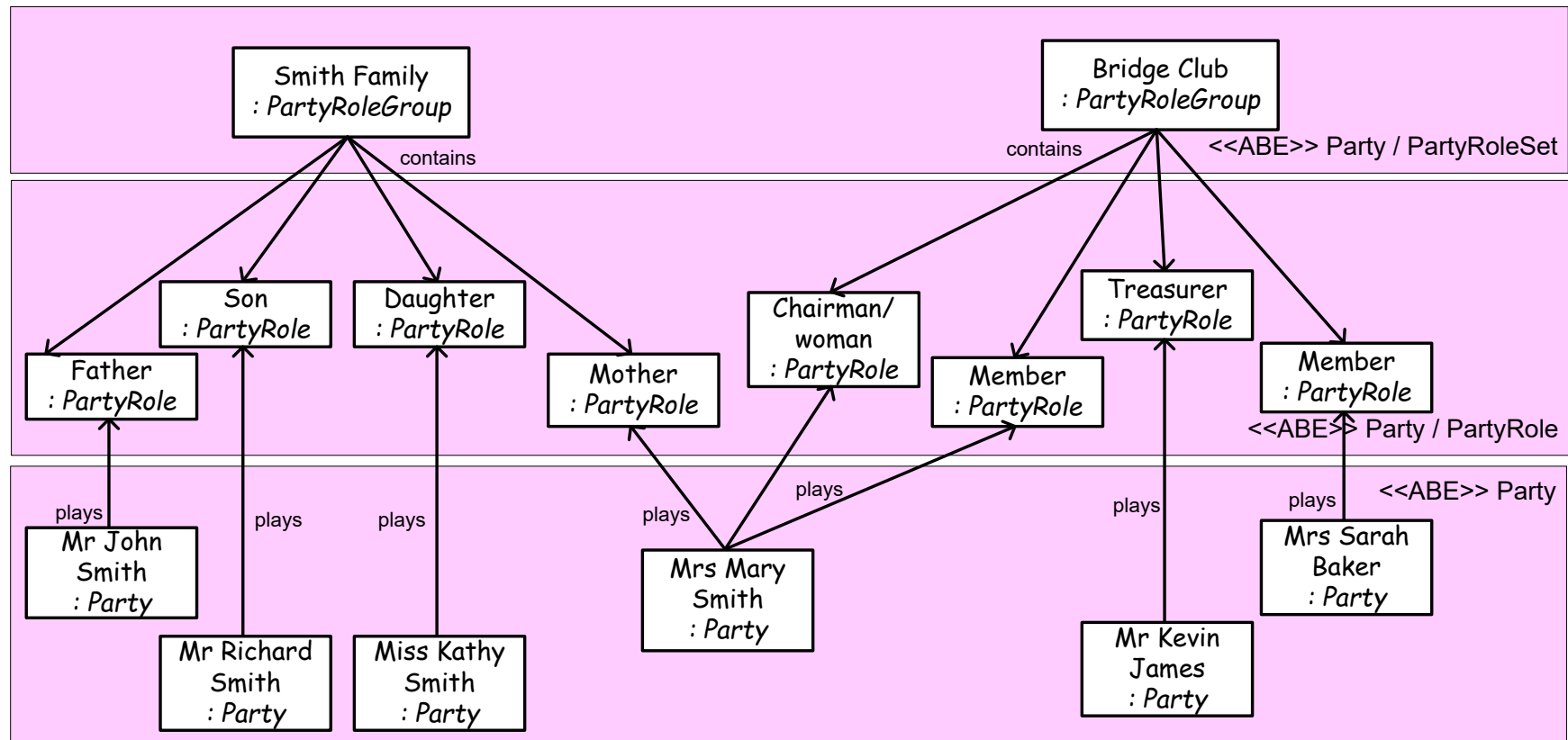


Figure P.06a-I01 – PartyRoleGroup illustration

### 1.1.6 Contact Medium

A PartyRole can be contacted using a contact medium [ACIA], which is an abstraction of the commonly used contact types: email, Postal Address, telephone, fax, etc. We model a PartyRole to having contact mediums rather than a Party. This allows us to cater for role based e-mail addresses and work queues and Contact Details for a POST.

To allow for international usage, we also model the languages and dialects that Parties are able to use. Language Ability tells us which languages a party can converse in.

The Language entity links to Party, not Individual, as it also allows us to represent languages that an Organization supports. For instance, a Service Provider may provide interpreters in certain languages for Customer inquiries.

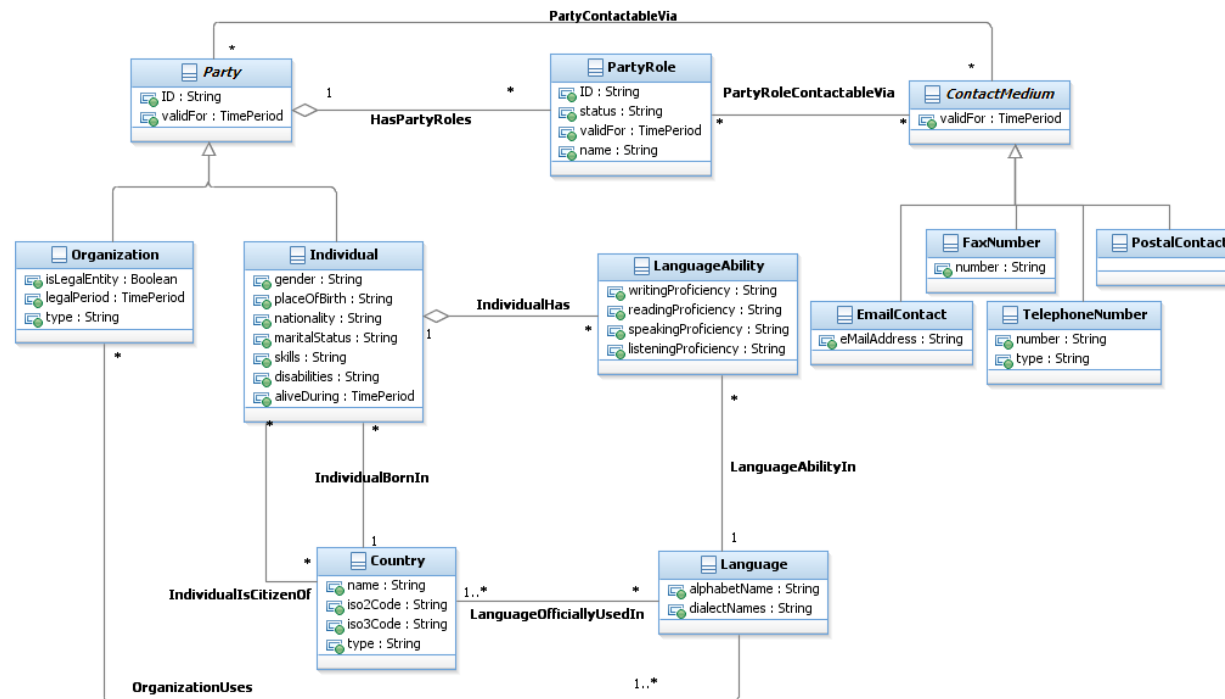


Figure P.07 - Contacting a Party

### 1.1.7 Interworking with the rest of the SID model

Figure P.08 – Showing Possible Links to Other Parts of the SID Model shows the main Party classes and the expected connections to other parts of the SID model.

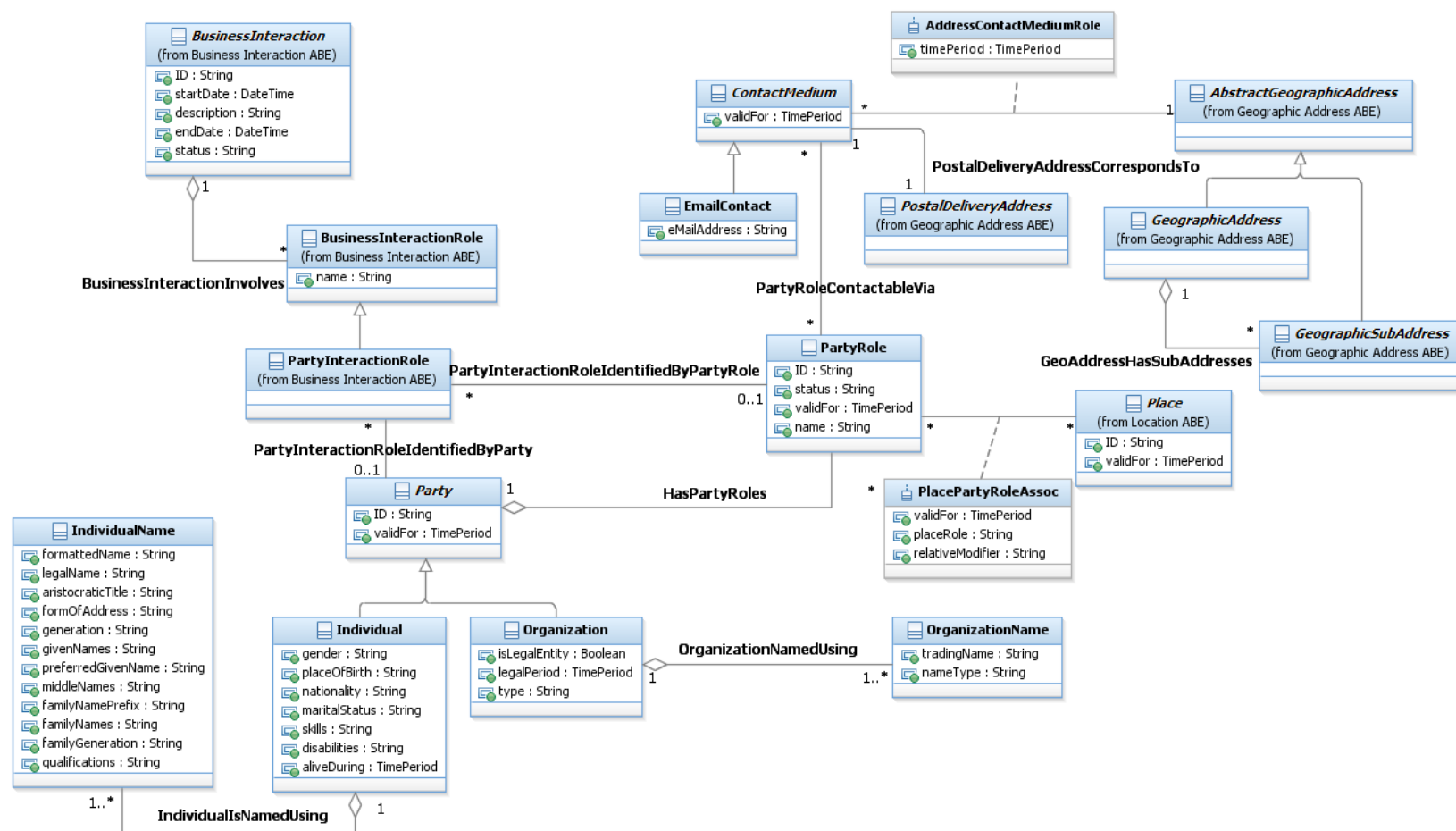


Figure P.08 – Showing Possible Links to Other Parts of the SID Model

### 1.1.8 Party Demographic

Demographics deal with the study of individuals and organizations (Parties), including their size, growth, density, and distribution, as well as statistics regarding birth, marriage, disease, and death. Demographic data is information about parties that allows decisions to be made such as the make-up and size of a market segment, classification and ranking of customers, and so forth. Demographics provide the key “what” information and can be broken down into two categories: individual demographics and organization demographics.

Individual demographic data provides information pertaining to the consumer market. Examples of this type of demographic are:

- Age, income, education, vehicle registration, gender, ethnicity, and the source of the information
- Geography, or sizing, demographics
- Number of households
- Number of telephone lines (single vs. multiple, switched vs. dedicated)
- Population
- Telecom spending by segment related back to another demographic (wireless, calling features, calling card, etc.)

Organization demographic data provides information pertaining to the non-consumer market. Examples of business demographic data are:

- Standard industry (SIC) code (for vertical industries)
- Geographic dispersal
- Headquarters location, number and location of offices (domestic vs. international, regions/triads); each have different access requirements
- By hierarchy (headquarters vs. regions vs. sales offices)
- Existing networks
- Private vs. frame relay
- WAN/LAN (in every office vs. stand-alone)
- By SIC code (partially)
- Network equipment
- Centralized vs. distributed processing
- Applications (Human Resources, Payroll, FTP, Intranet, and so forth)
- Voice mail, audio/video
- Infrastructure setup (type of computer) by geography
- Usage (switched vs. dedicated, intra-company vs. intercompany)

- Features (large sales force could indicate use of calling cards); related to number and type of employees
- Number of employees by type (for example, sales force)
- Number of customers and prospects
- Geographies covered
- Target markets
- Sales channels
- Current telecom spending by product (inbound vs. outbound vs. calling card)
- Date acquired, current provider, provider products
- Percent of existing telecom bill spent with the service provider by product
- Public information (revenue, profit, employees, and so forth)

The business entities that support PartyDemographic (and also support PartyProfileType and MarketSegment as described later) should be generic enough to allow new demographic characteristics and other types of characteristics to be defined as needed. To accomplish this, the Demographic entity employs the Characteristic Spec/Characteristic pattern used throughout the SID. PartyDemographic also employs the Composite/Atomic pattern to represent collections of related DemographicCharacteristics.

**Note:** This pattern is used throughout the Market/Sales domain. Additional information about the Characteristic pattern can be found in GB922 Addendum 1R Root Business Entities. The application of the pattern in the Market/Sales domain does not use all the association classes defined by the pattern; if needed, they can be added by a SID implementer.

Figure P.09 – Demographic Characteristic Business Entities depicts Demographic business entities.

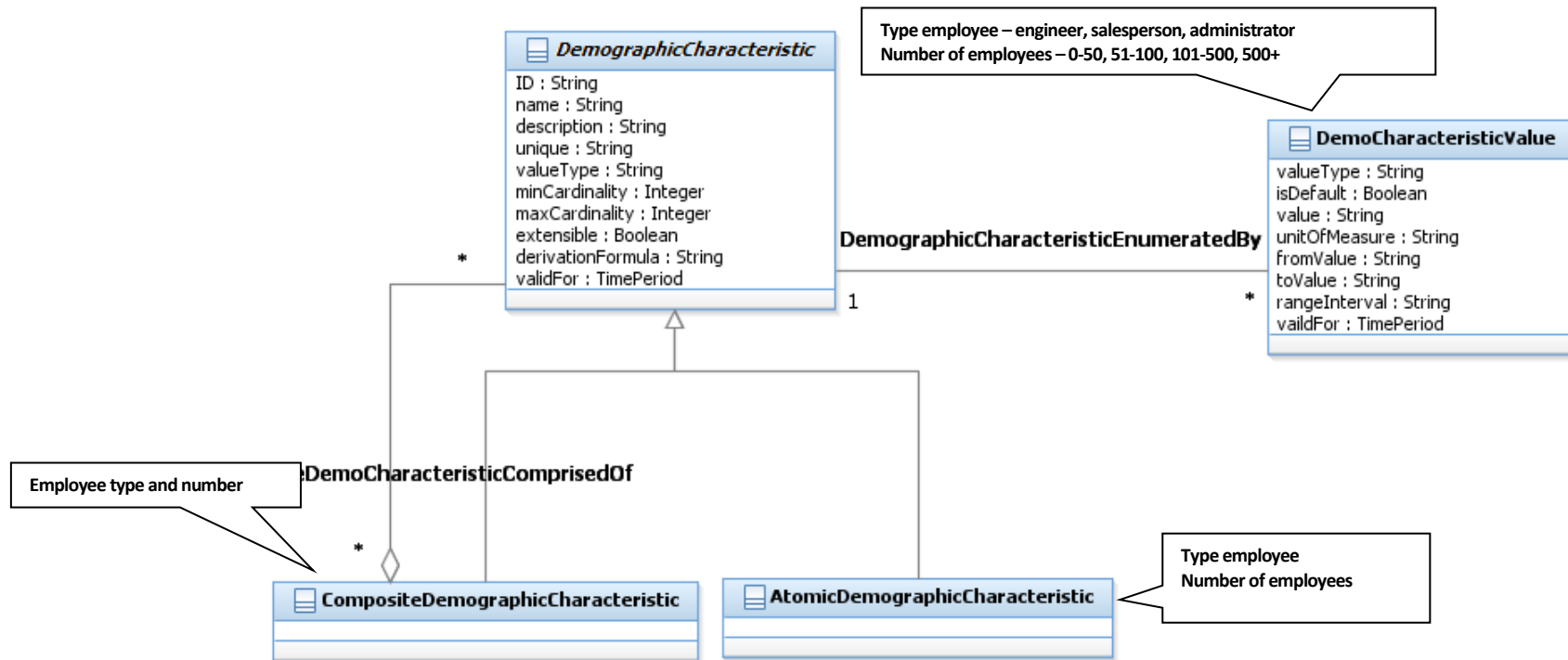


Figure P.09 – Demographic Characteristic Business Entities

An example of the use of the Composite/Atomic pattern from the list of example demographics above is a CompositeDemographicCharacteristic called “employee type and number” that aggregates the AtomicDemographicCharacteristics “type employee” and “number of employees”. These examples are shown in the figure above.



A PartyDemographic is a feature or quality used to make recognizable or to define a Party playing a PartyRole, such as age, income, education, revenue, and so forth. The figure below shows the entities that make up the PartyDemographic ABE. Notice that PartyDemographic also uses the Composite/Atomic pattern for defining PartyDemographics that are aggregates of other PartyDemographics. For example, a standard of living composite may be the aggregation of income level, value of investments, and home value (assuming a home is not an investment!).

Note that one of the members of the associations from PartyDemographicValue to DemographicCharacteristic and DemographicCharacteristicValue are of cardinality of 0,1. This is because not all DemographicCharacteristics have a set of defined values. For example, a characteristic of children's names does not have set of "valid" values, but is entered as text for an instance of PartyDemographicValue; in this example there is not an instance of the association between PartyDemographicValue and DemographicCharacteristicValue. Similarly, if there is a set of DemographicCharacteristic values (1, 2, 3 or more) for number of children living at home, there is an instance of the association between PartyDemographicValue and DemographicCharacteristicValue, but not one between PartyDemographicValue and DemographicCharacteristic. This second association is derived via the first association.

PartyDemographics characterize a single PartyRole. There was thought given to describing both PartyDemographics and PartyRoleDemographics. However, as was done with PartyRoleContacts (see addendum GB922 1P – Party), having demographics at both the Party and PartyRole seemed to be a bit of over-modeling. Therefore, if the same demographic characterizes two or more PartyRoles played by the same Party, the demographic is repeated for each role.

PartyDemographics can also be defined in part by a ProductOffering that a Party has obtained and/or used. For example, the number of minutes of long distance used within a Calling Plan offering.

PartyDemographics can also be grouped by GeographicArea and MarketSegment.

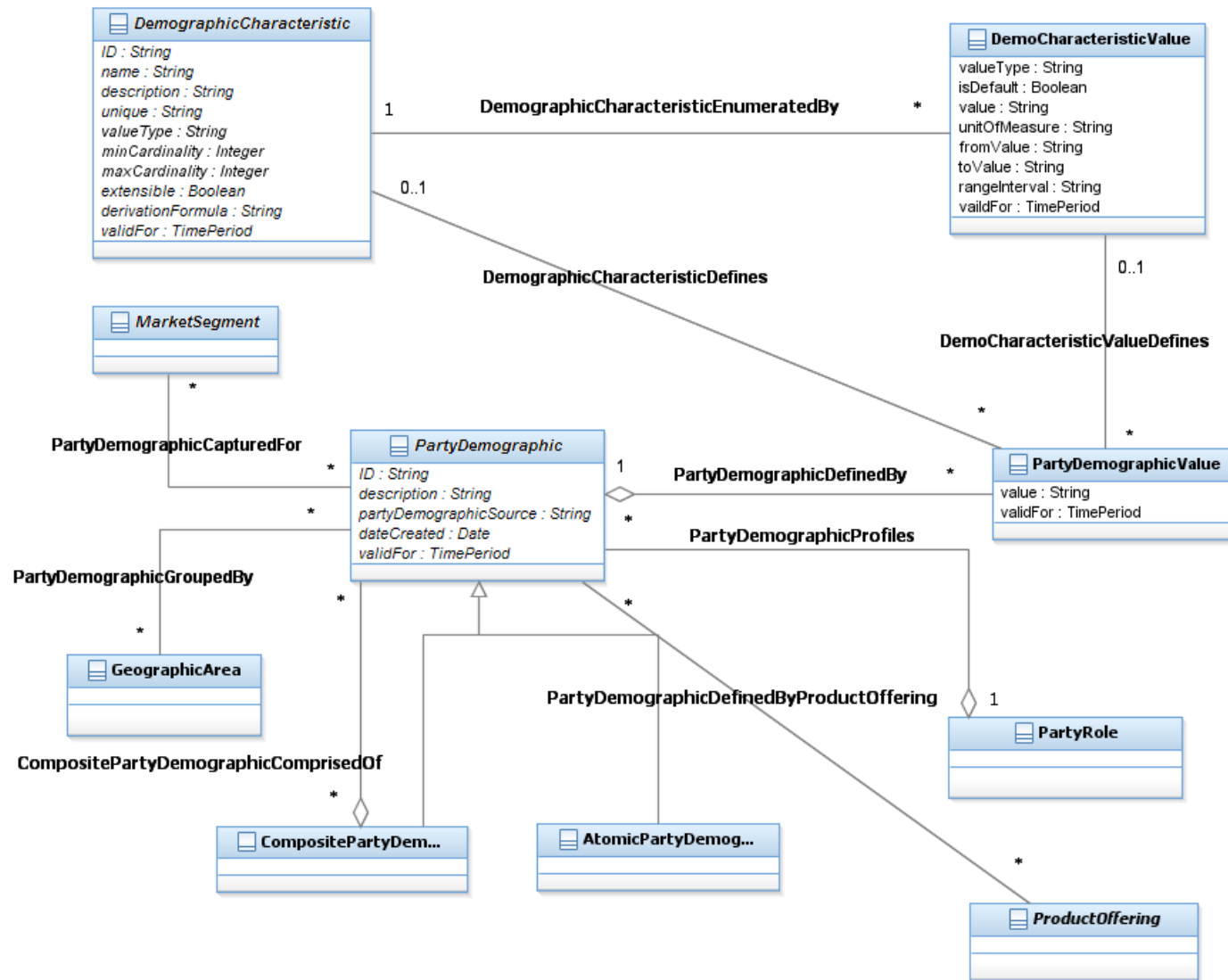


Figure P.10 – Party Demographics Business Entities

### 1.1.9 Party Profile Type

A PartyProfileType defines the characteristics used to group Parties that typify MarketSegments and for the formulation and targeting of MarketingCampaigns. A PartyProfileType might be used to categorize one or more PartyRoleSpecifications. In this case, the resulting PartyProfiles categorize PartyRoles else they categorize directly one or many Parties.

A PartyProfileType can be defined for one or more GeographicAreas. The profile type can target one or more ProductOfferings and one or more MarketSegments. PartyProfileTypes can be based on (or defined by) DemographicCharacteristics.

Figure P.11 – Party Profile Type Entities shows the entities that make up a PartyProfileType.



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Note the n-n associations between PartyProfileType and the two entities PartyProfileTypeCharacteristic and PartyProfileTypeCharacteristicValue. This allows the same characteristic, such as age range, income range, and so forth to be shared by many types of profiles. The two associations are also mutually exclusive. If a PartyProfileType includes all the values for a characteristic, then the profile is associated to the characteristic and not the values. If a PartyProfileType includes a subset of the values for a characteristic, then the profile is associated to the values that define the profile. For example, if the possible age ranges are under 18, 18-35, 36-54, 55-65, over 65 and a profile is looking for baby boomers in the age ranges of 55 and above, the profile would be associated with the two ranges 55-65, and over 65. No association would be made to the characteristic. If this is done then the profile would appear to include all age ranges, which is not correct.

PartyProfileTypeCharacteristic also employs the Composite/Atomic pattern to represent collections of related characteristics. The figure below shows the continued use of this pattern within the Market/Sales domain.

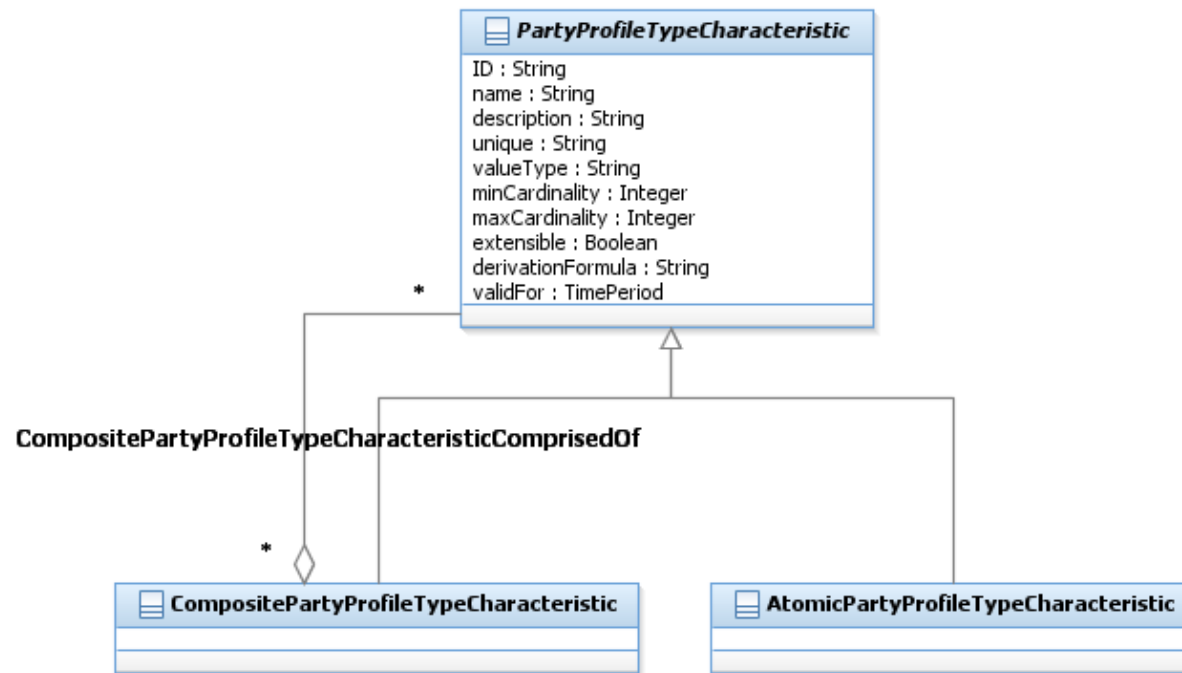


Figure P.12 - Party Profile Type Characteristic Composite and Atomic

The next step is to match PartyProfileType Characteristics with PartyRoles.

A PartyProfile forms the bridge between PartyRoles or a Parties and a PartyProfileType. The PartyProfile provides a means to keep a record of what PartyProfileTypes were a match at a particular point in time. The PartyRoles that match a profile type help identify the potential market size for a MarketingCampaign, can be the targets of a MarketingCampaign and SalesChannels, and so forth. The figure below shows the association that PartyRoles have with PartyProfileTypes.

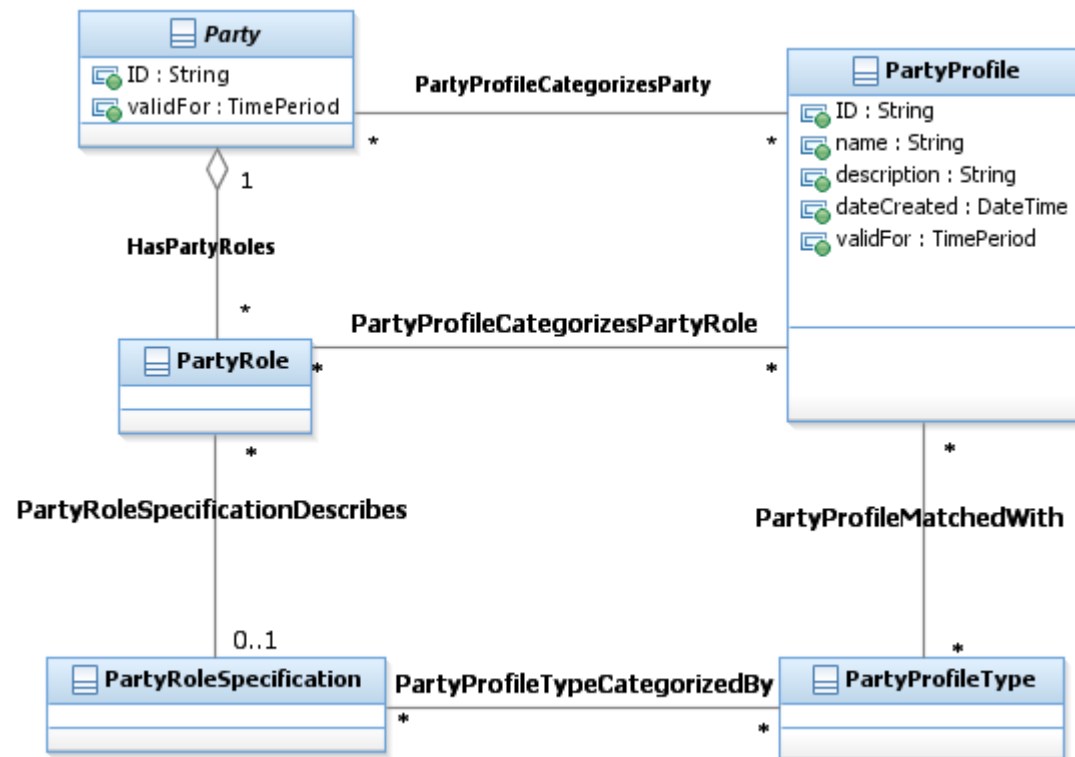


Figure P.13 – Party Role and Party Profile Type

### 1.1.10 Skills

Parties and PartyRoles can possess a number of skills. Each skill is specified (defined), maintained in a SkillCatalog and associated with a PartyRole as shown in Figure 14 – Parties and Skills.

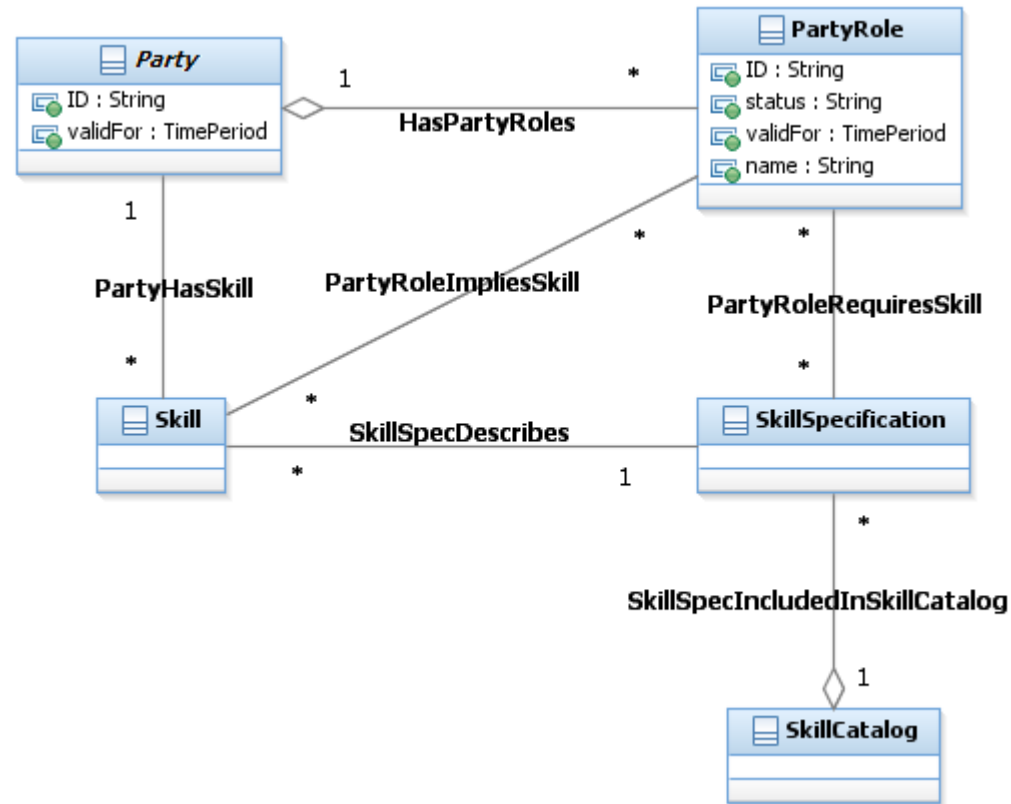




Figure P.14 - Parties and Skills

### 1.1.11 Community

#### 1.1.11.1 Committing to a Community as a Community Member

First of all, a Community is a PartyRole, played by a Party of type organization. Parties of type Individual can play the PartyRole of a CommunityMember. The “plain membership” may be expressed by a PartyRoleAssociation between those both PartyRoles.

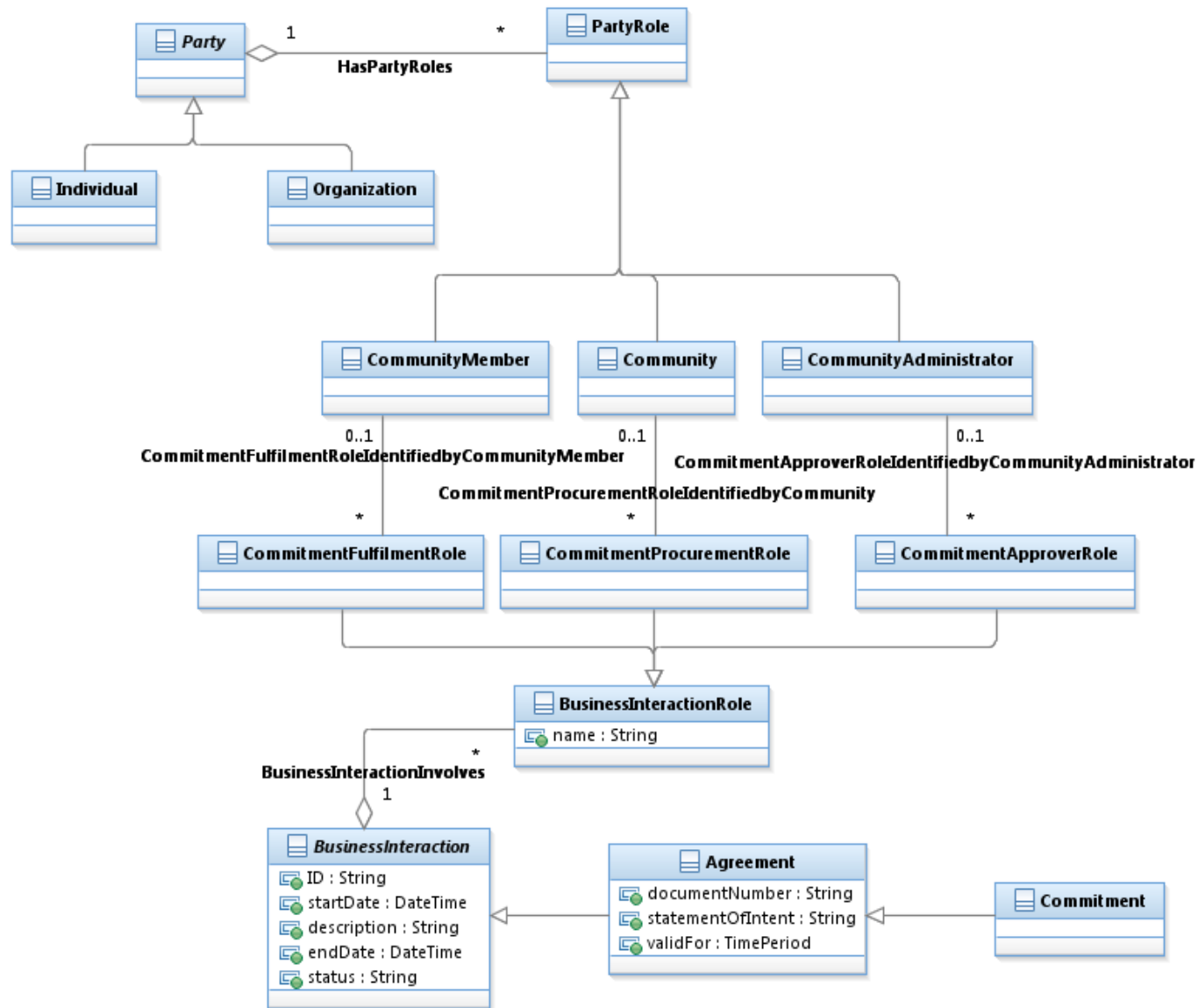


Figure P.15 - Committing to a Community

An essential concept for so called “community based delivery models” is the commitment between the Community and the CommunityMember. Commitment is a sub-class of Agreement (BusinessInteraction). This concept is applied here and the BusinessInteractionRoles CommitmentFulfilmentRole, CommitmentProcurementRole and CommitmentApproverRole are associated with the types of PartyRole CommunityMember, Community and CommunityAdministrator.

The figure below shows an example of a community commitment.

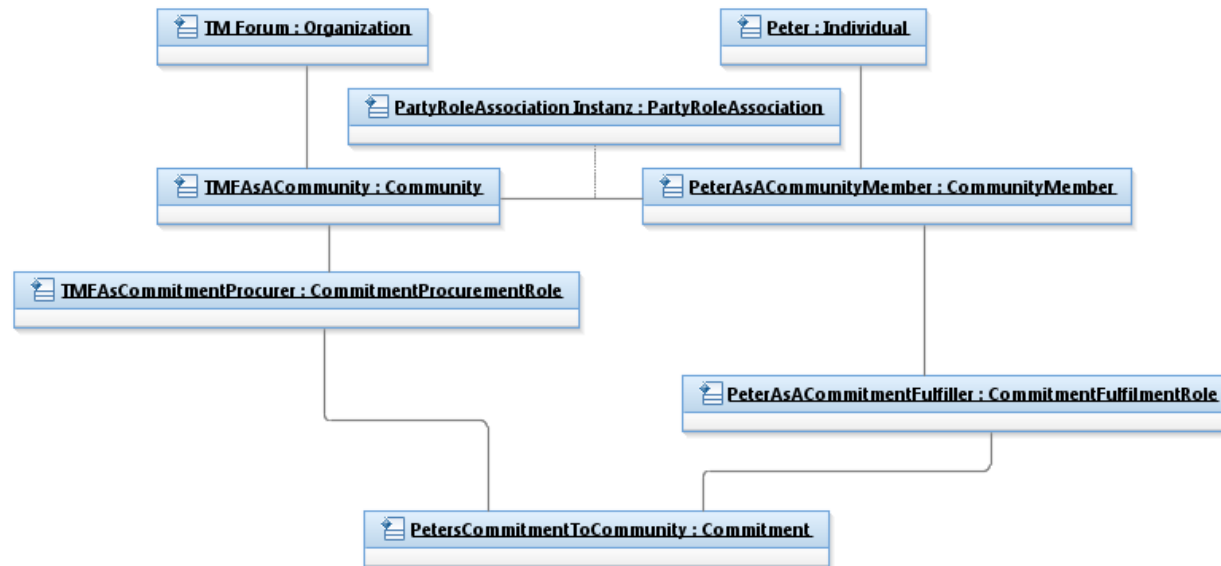


Figure P.16 - Example for Community Commitment

#### **1.1.11.2 Contributing to a Community**

A Contribution to a community is a sub-class of BusinessInteraction with CommunityMember and Community as involved PartyRoles. For this new type of BusinessInteraction, two new BusinessInteractionRoles are introduced: ContributionProviderRole, associated with the CommunityMember who is contributing, and the ContributionReceiverRole, associated with the Community.

A Contribution might consist of BusinessInteraction item, a Resource, Service or Product is associated to, which is contributed to the Community.

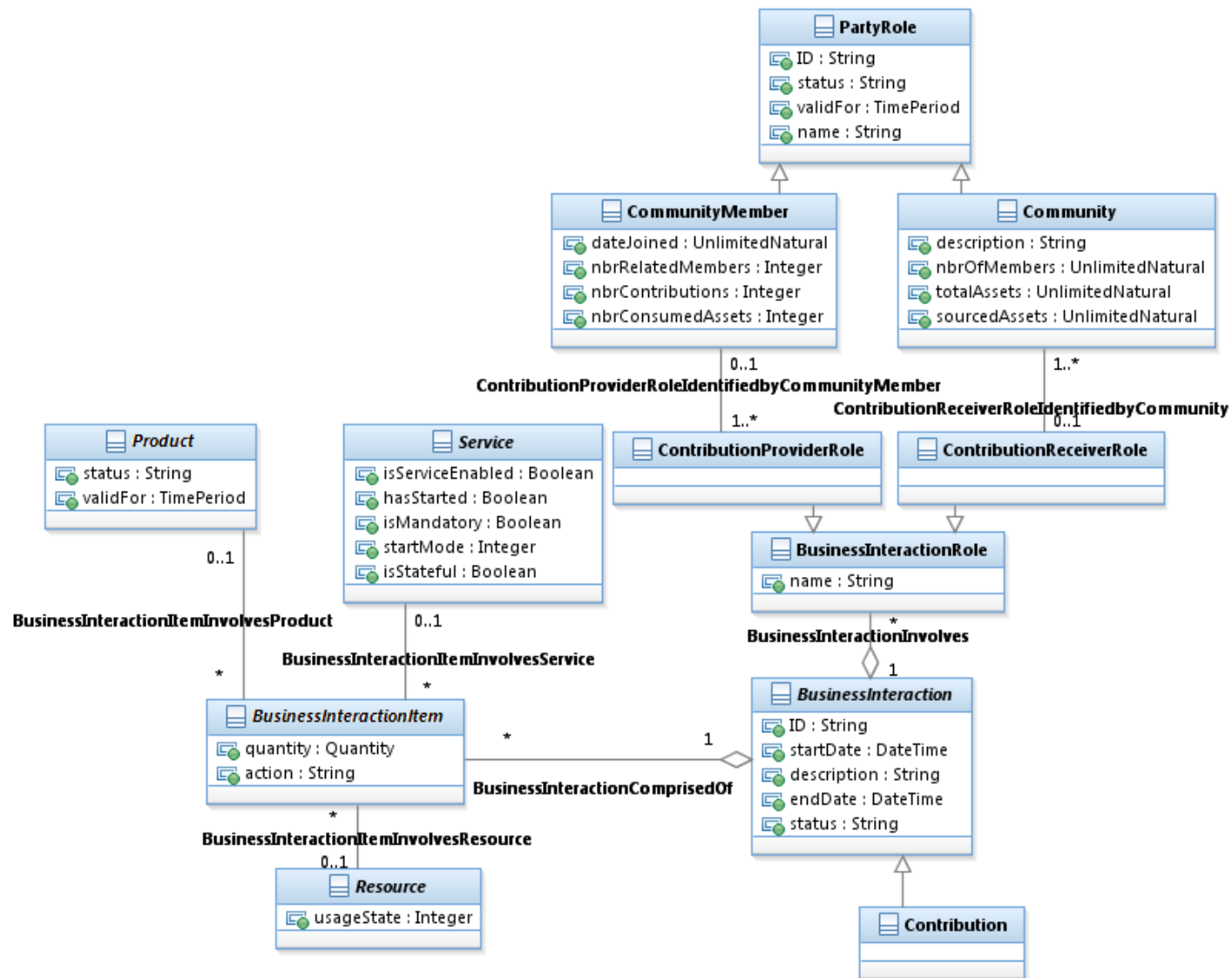


Figure P.17 - Contributing to a Community

### 1.1.11.3 Consuming Assets from a Community

Contributions are assembled to Assets by the community – i.e. multiple Contributions, contributed by different CommunityMembers may be assembled together to one consumable asset.

Examples for assets are open source software; in that case the source code might be contributions of various CommunityMembers. Another example is Facebook; the original post and the comments are contributions, provided by different CommunityMembers, a whole discussion thread is an asset that can be consumed by other CommunityMembers.

Consuming an Asset from a Community, again, is a BusinessInteraction, which items are associated to Products, which is the consumed asset. That product might be instantiated from a ProductOffering and associated to a ProductPrice, so it possible to model Assets with a price, too.

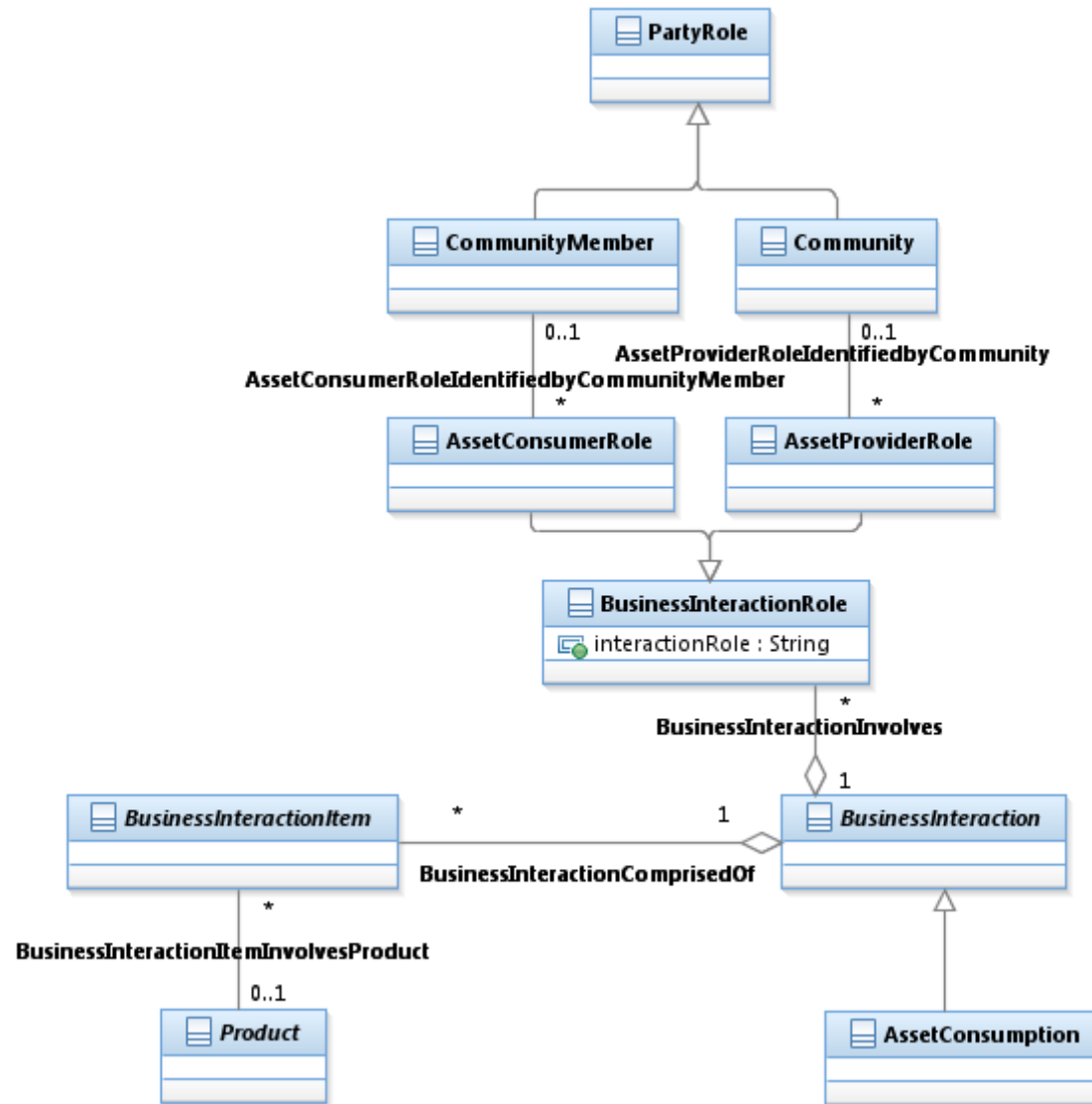
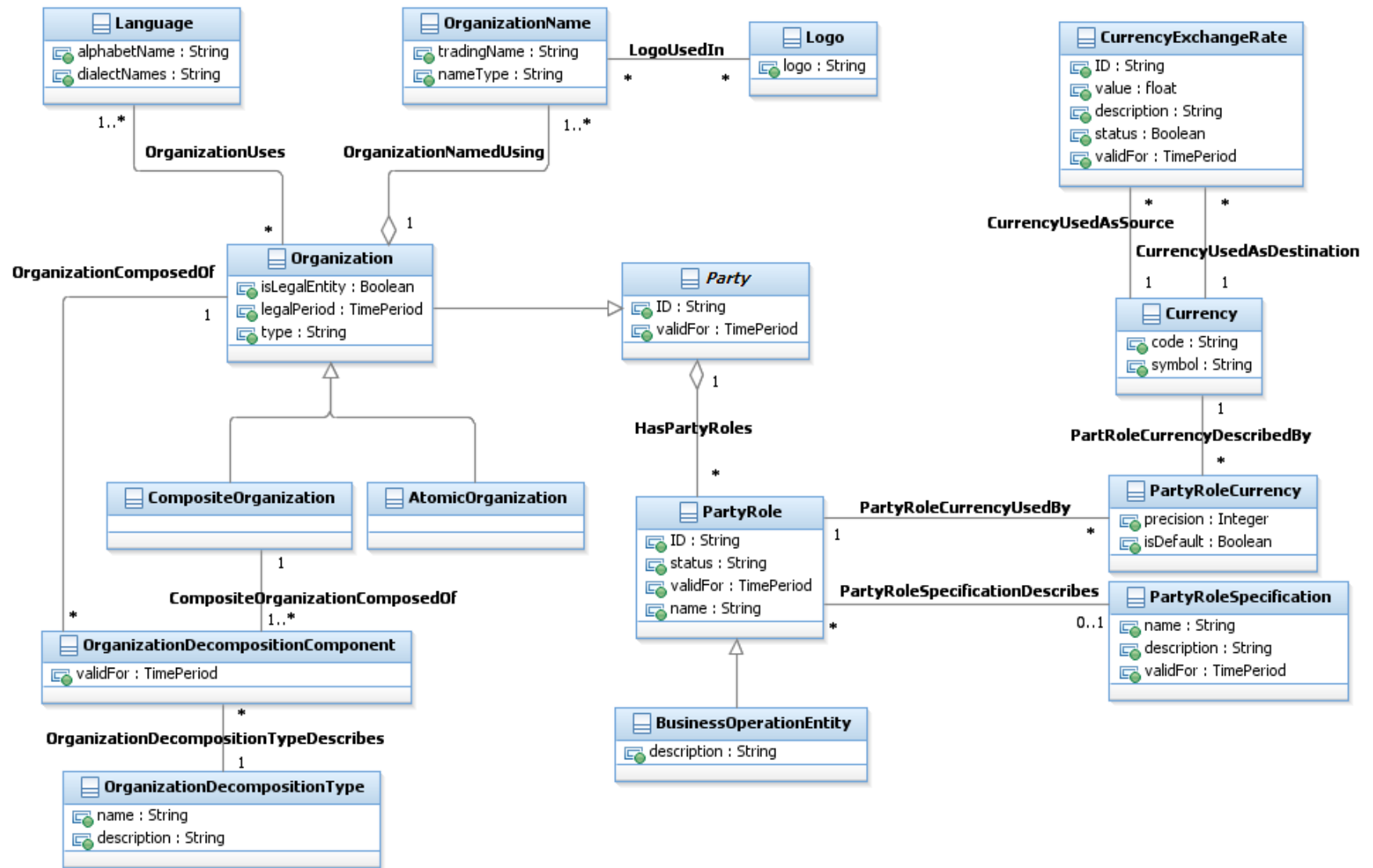


Figure P.18 - Consuming Assets from a Community

### 1.1.12 Organization structure, Currency and Business Operation Entity





**Figure P.19 – Organization structure, Currency and Business Operation Entity**

BusinessOperationEntity is an entity operating its business independently based on its business objective and which a Customer, Partner or other business related PartyRole has an agreement with. For example, from Enterprise's perspective, BusinessOperationEntity can be used to model MVNO and MVNE. For BusinessOperationEntity, the type of Organization might be company.

It may have organization hierarchy and the lower BusinessOperationEntity may inherit the upper BusinessOperationEntity's strategy and have its own one. E.g. Headquarter and divisions. AtomicOrganization is a type of Organization that does not have any subordinate Organization. That is, an AtomicOrganization is a leaf-level Organization. CompositeOrganizaiton is a type of Organization that is formed by aggregating other Organizations, which may be atomic Organizations or OrganizationDecompositionComponents. OrganizationDecompositionType describes and specifies certain type of organization decomposition. OrganiziationDecompositionComponent describes certain component after organization decomposition based on defined type by OrganizationDecompositionType.

BusinessOperationEntity may use different Logo, Language and Currency(including CurrencyExchangeRate related to Currency).

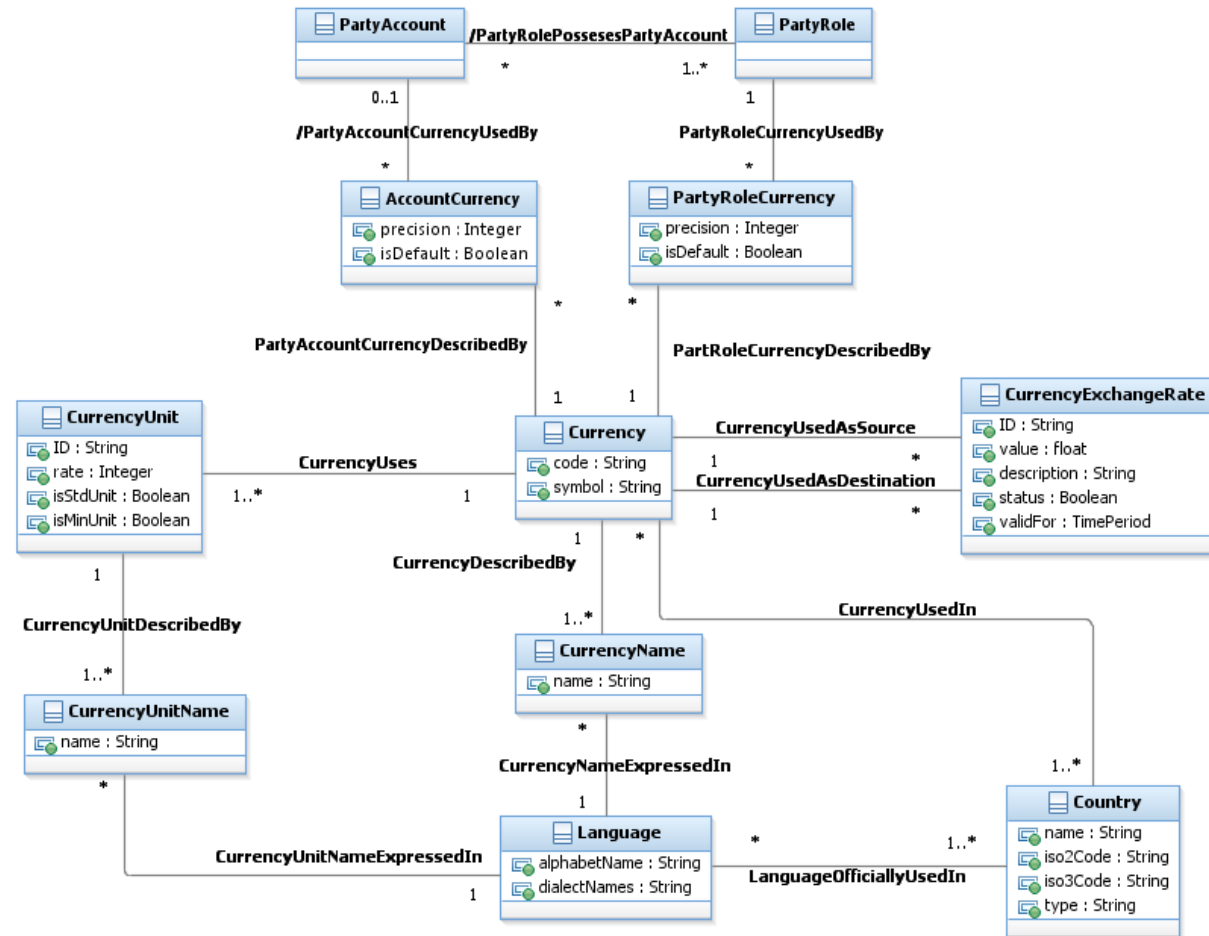


Figure P.20 – Currency Model

The Currency represents the currency in reality.

CurrencyUnit is measurement unit of a Currency. Currency uses 1 or more CurrencyUnits. For example, Currency (code=CN¥, symbol= ¥) uses three CurrencyUnits (Yuan, Jiao, Fen).

Each CurrencyUnit might have a specific name according to the Language (CurrencyUnitName). For CurrencyUnitName Yuan associated to Language (alphabetName=Chinese), CurrencyUnit (rate =1, isStdUnit = True, isMinUnit = False).

Under different languages, a CurrencyUnit has different names, e.g. Yuan in English and 元 in Chinese to express the same basic currency unit in Chinese currency.

A Currency might be exchanged with a specific rate. So Currency is associated to many CurrencyExchangeRates with CurrencyUsedAsSource and CurrencyUsedAsDestination relationships.

Currency can be used in many different Countries and for each language a specific name might exist (CurrencyName) such as Renminbi Yuan in English and 人民币元 in Chinese to express the same Chinese currency.

PartyRoleCurrency represents the currency that PartyRole may use.

PartyAccountCurrency represents the currency that might be used for producing bills related to the PartyAccount. One of them specifies the default Currency used.

## 1.2 Party Privacy ABE

### 1.2.1 Privacy introduction

This part of the model has been initialized in SID 15.0 and updated in SID 15.5 according to the need of Privacy Management Process.

You will see in this part of the model derived relationships prefixed by a “/”. A derived relationship corresponds to several relationships replaced by a unique derived relationship to give a synthetic view.

The Party Privacy Management process manages privacy information and agreement with party.

Therefore, it needs to specify the information concerned by Privacy rules and the Privacy rules themselves.

The Figure Ppr.01 – Reminder about RootEntityType and RootEntity depicts how all information of the SID model might be addressed.

Each SID Entity corresponds to an instance of RootEntityType and each attribute of an Entity corresponds to the use (RootEntityTypeCharUse) of a CharacteristicSpecification.

Each possible value of a CharacteristicSpecification (CharacteristicSpecValue) might be used or not in the context of a RootEntityType (RootEntityTypeCharValueUse).

Each instance of a SID Entity corresponds to an instance of RootEntity and the value of its attributes are carried by an instance of CharacteristicValue.

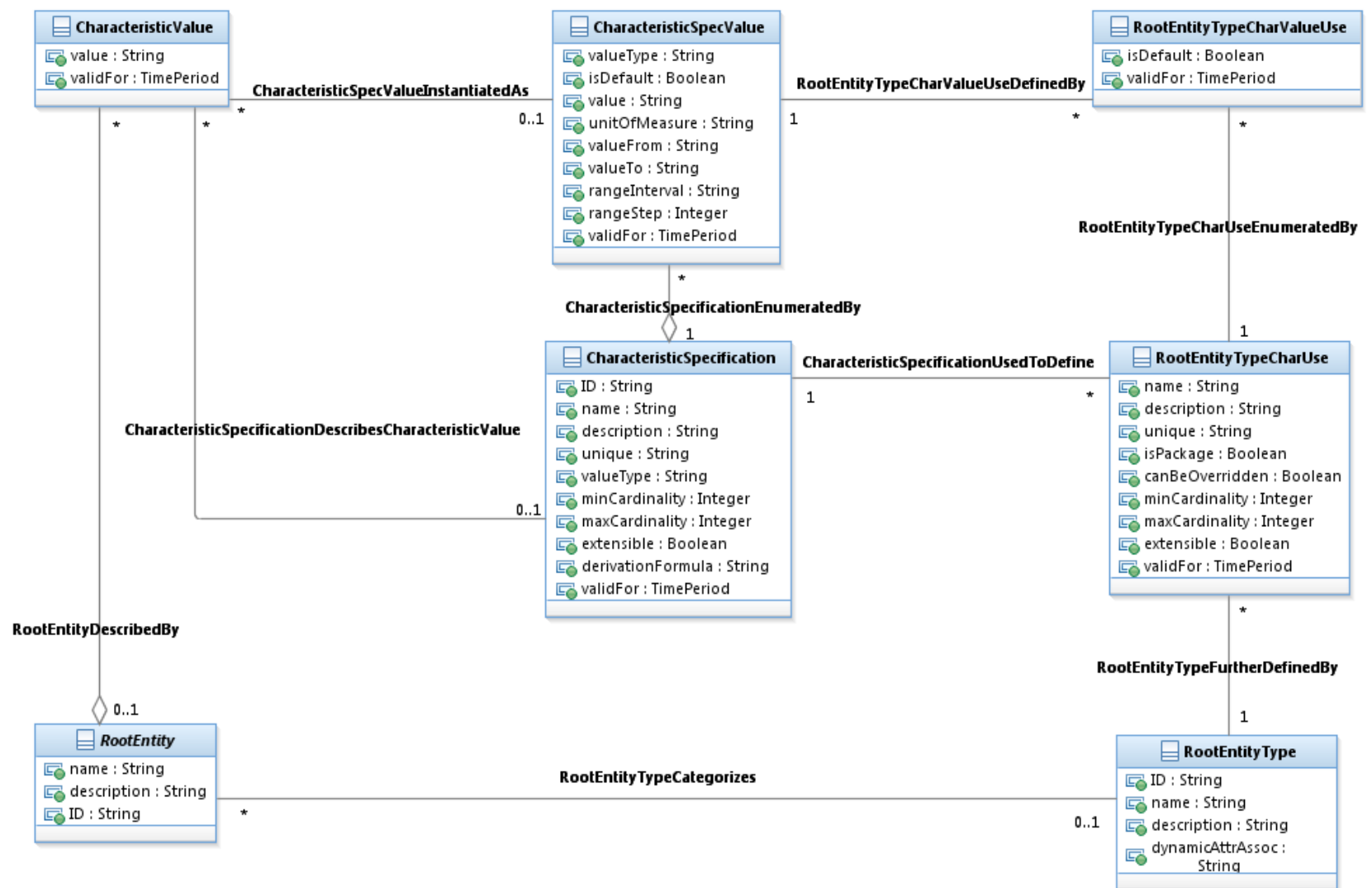
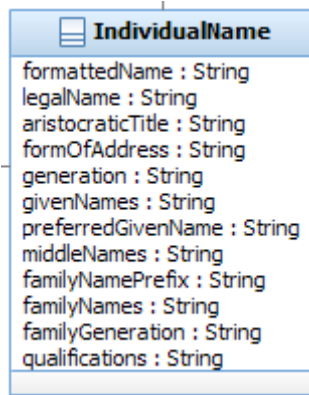


Figure Ppr.01 – Reminder about RootEntityType and RootEntity

To illustrate the use of RootEntityType and RootEntity, let's take the example of the Entity IndividualName that is described by the attributes legalName, formattedName, formOfAddress, etc.



The IndividualName would be described (non-exhaustive representation) as follows:

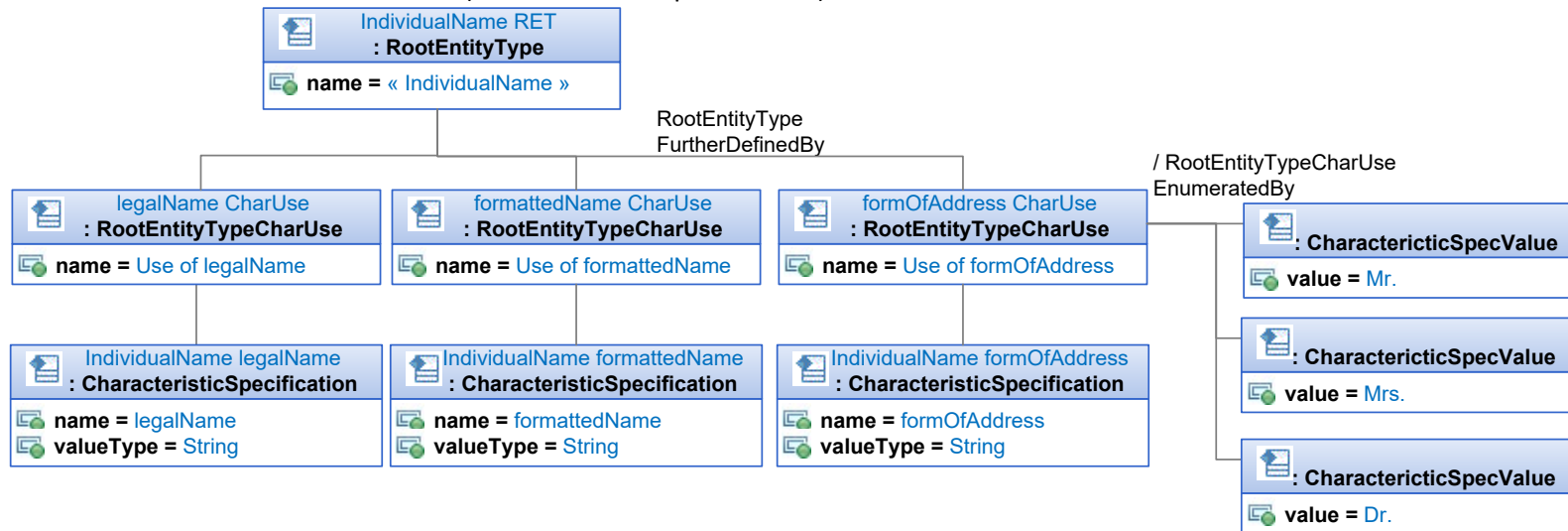


Figure Ppr.01 – Illustration.01 Reminder about RootEntityType and RootEntity

And now if we consider John Doe whose legal Name is “John Doe”, formatted Name is “John Doe Sr.” and form of address is “Mr.”, it would be instantiated as follows:

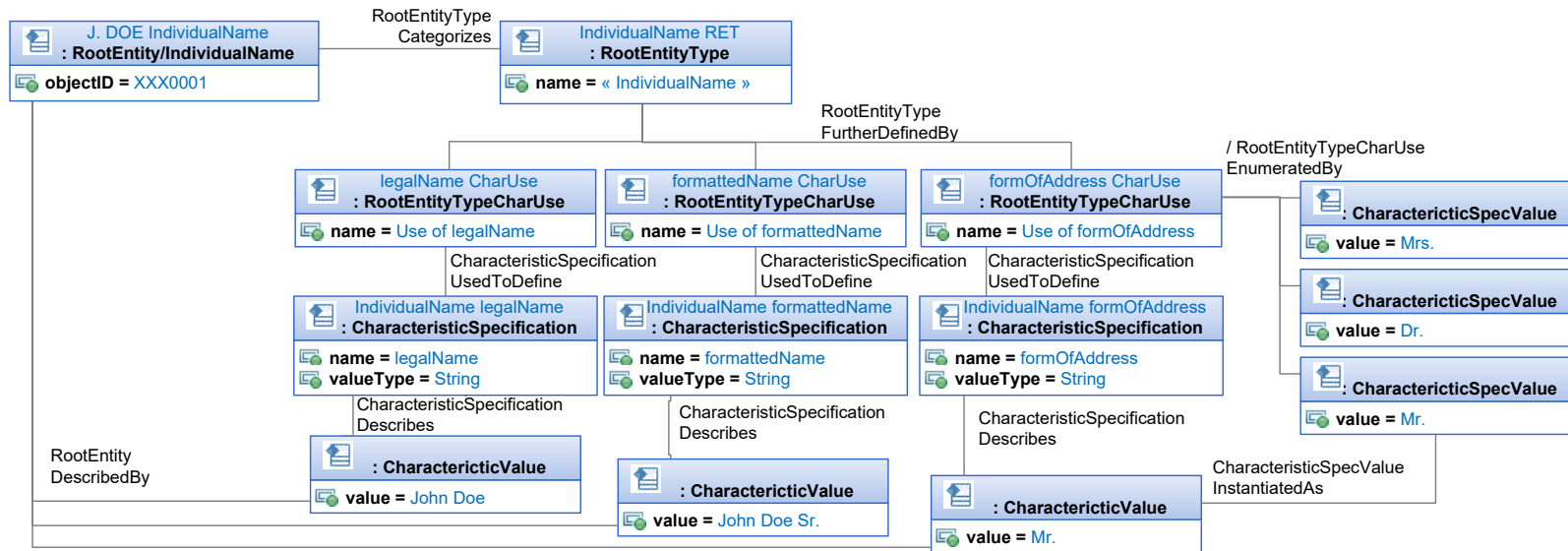


Figure Ppr.01 – Illustration.02 Reminder about RootEntityType and RootEntity

### 1.2.2 Party Privacy Profile Type ABE

Thanks to the capacity of RootEntityType / RootEntity that enables the description of any information of the model, we can specify the available options of Privacy for each information concerned by Privacy.

The following Figure Ppr.02 – Party Privacy Profile Type overview gives an overview on how to specify the information concerned by Privacy rules and the Privacy rules themselves.

A PartyPrivacyProfileType specifies for a Party playing a type of PartyRole (PartyRoleSpecification) such as Customer or User and possibly restricted to a context such as a set of ProductOfferings, all the available options that the Party may choose for each information concerned by the Privacy.

A PartyPrivacyProfileType may specify Privacy for several information using PartyPrivacyProfileTypeCharacteristic.



Each PartyPrivacyProfileTypeCharacteristic may specify:

- one or many information concerned by the Privacy (CharacteristicSpecification via RootEntityTypeCharUse),
- the PartyRoleSpecifications that must apply the Privacy rule (For example, specific rules might be specified about the postal address for Party playing a role of shipping company),
- and the corresponding Privacy rule (i.e. available choices for the party) using PartyPrivacyProfileTypeCharValue.

A PartyPrivacyProfileTypeCharacteristic has a privacyType such as “Internal Purpose”, “External Purpose”, “Internal Retention” or “External Retention”.

If the privacyType is “Internal Purpose” or “External Purpose”, then the PartyPrivacyProfileTypeCharacteristic specifies the usage purpose of the information concerned by the privacy such as Administration, Marketing, Research...

The criticalityLevel specifies a level of criticality for the set of Personal Identifiable Information (PII) defined by RootEntityTypeCharUse. Each PartyPrivacyProfileTypeCharacteristic is categorized by a PrivacyCategory for helping Graphical User Interface (GUI) to have a nice presentation for Privacy viewing and configuration.

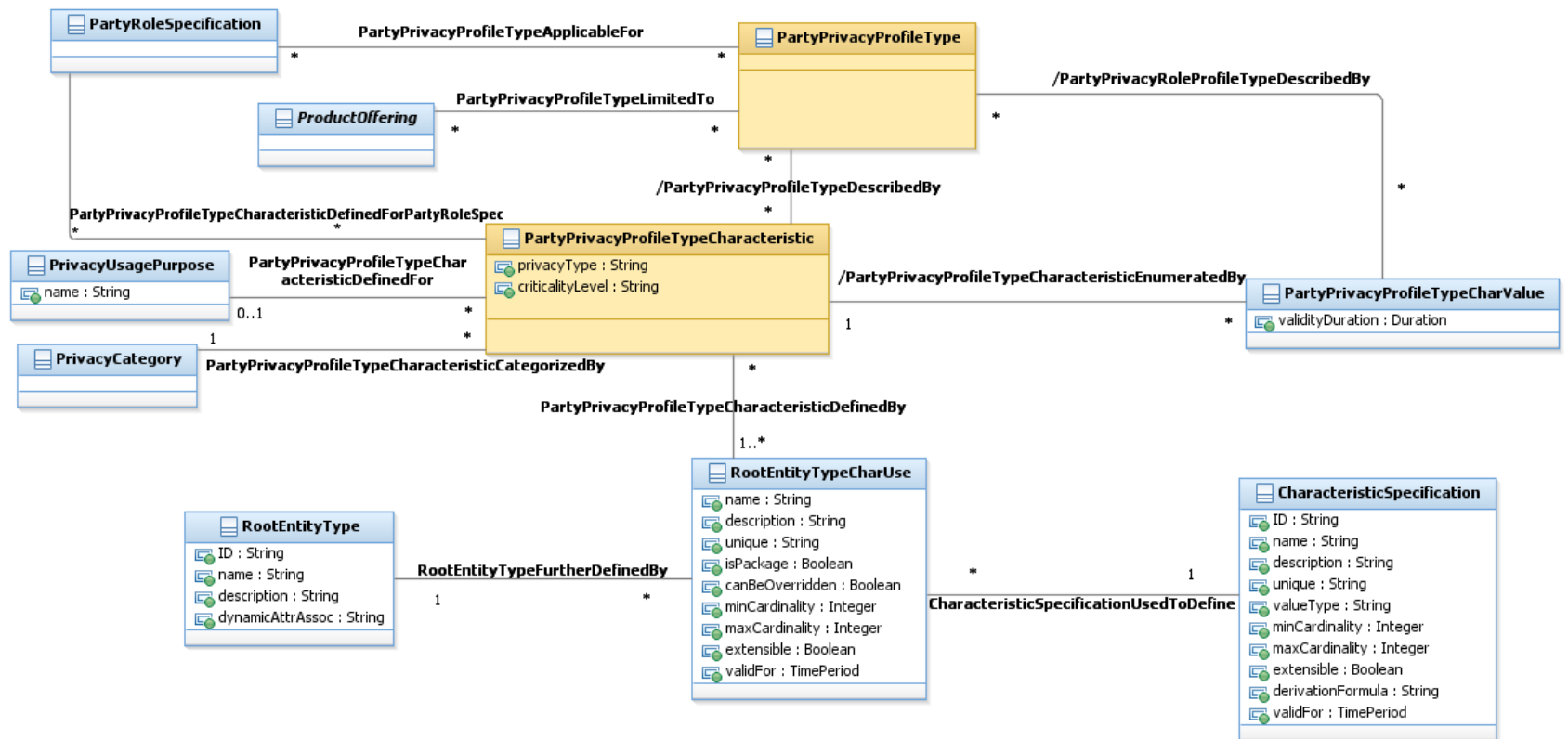


Figure Ppr.02 – Party Privacy Profile Type overview

To illustrate the previous Diagram, let's consider the Privacy that might be defined for the eMail address.

The company defines a "Customer Mass Market Privacy" for Parties playing a role of Customer.

For the eMail Address information, it is decided that the company is always authorized to use it for Administration purpose.

This would be instantiated as follow in the model:

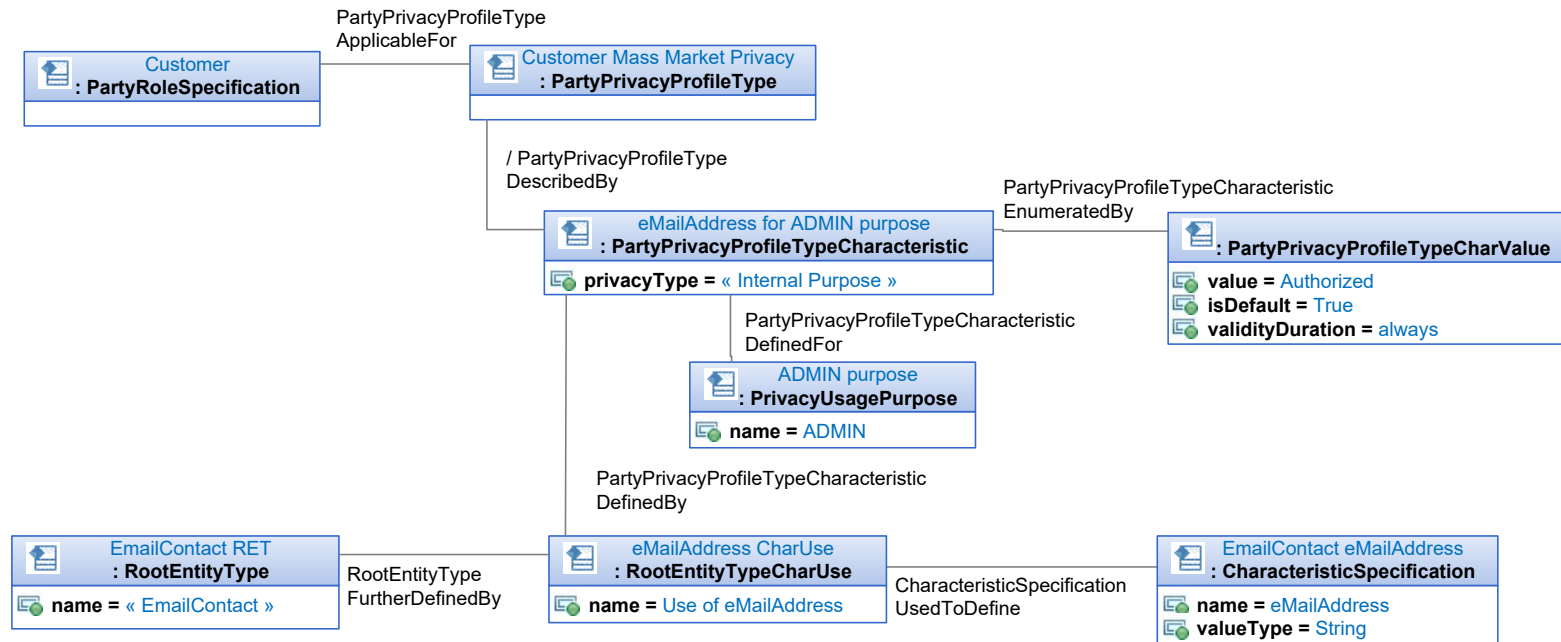


Figure Ppr.02 – Illustration.03 Party Privacy Profile Type overview

Now, let's consider other privacy rules for Internal Purposes concerning the eMail Address:

- For Administration purpose, it can always be used by the company (**ALWAYS** rule),
- For Information purpose: by default, the company can use it, but the Customer can refuse the use of it (**OPT-OUT** rule),
- For Marketing purpose: by default, the company is not authorized to use it, but the Customer can authorize the use of it and in this case after 3 months the use of it is again unauthorized (**OPT-IN** rule),
- For Research purpose: the company is never authorized to use it (**NEVER** rule).

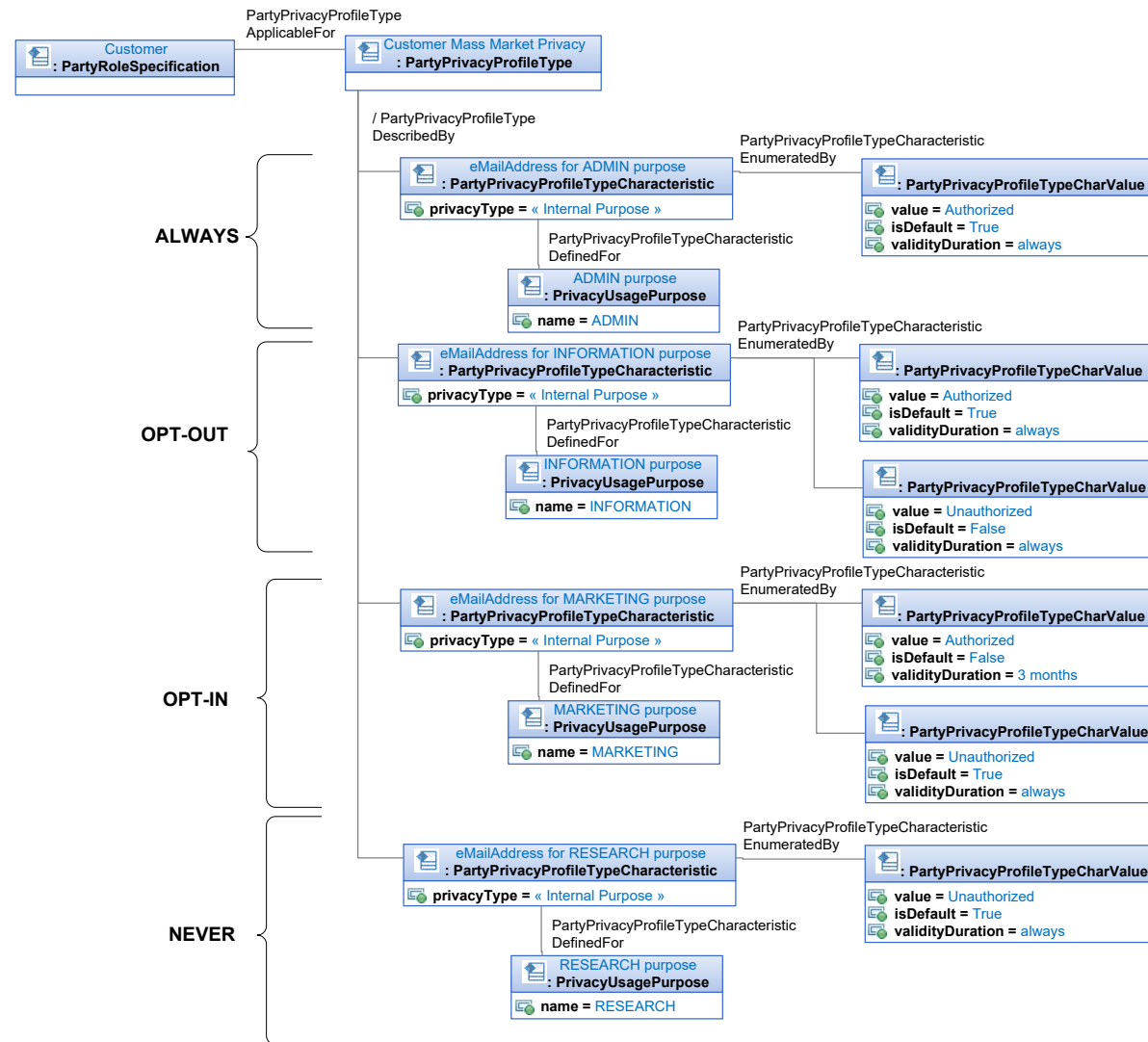


Figure Ppr.02 – Illustration.04 Party Privacy Profile Type overview

We could have different privacy rules defined for external companies to which the information is transferred. It could be described as follows:

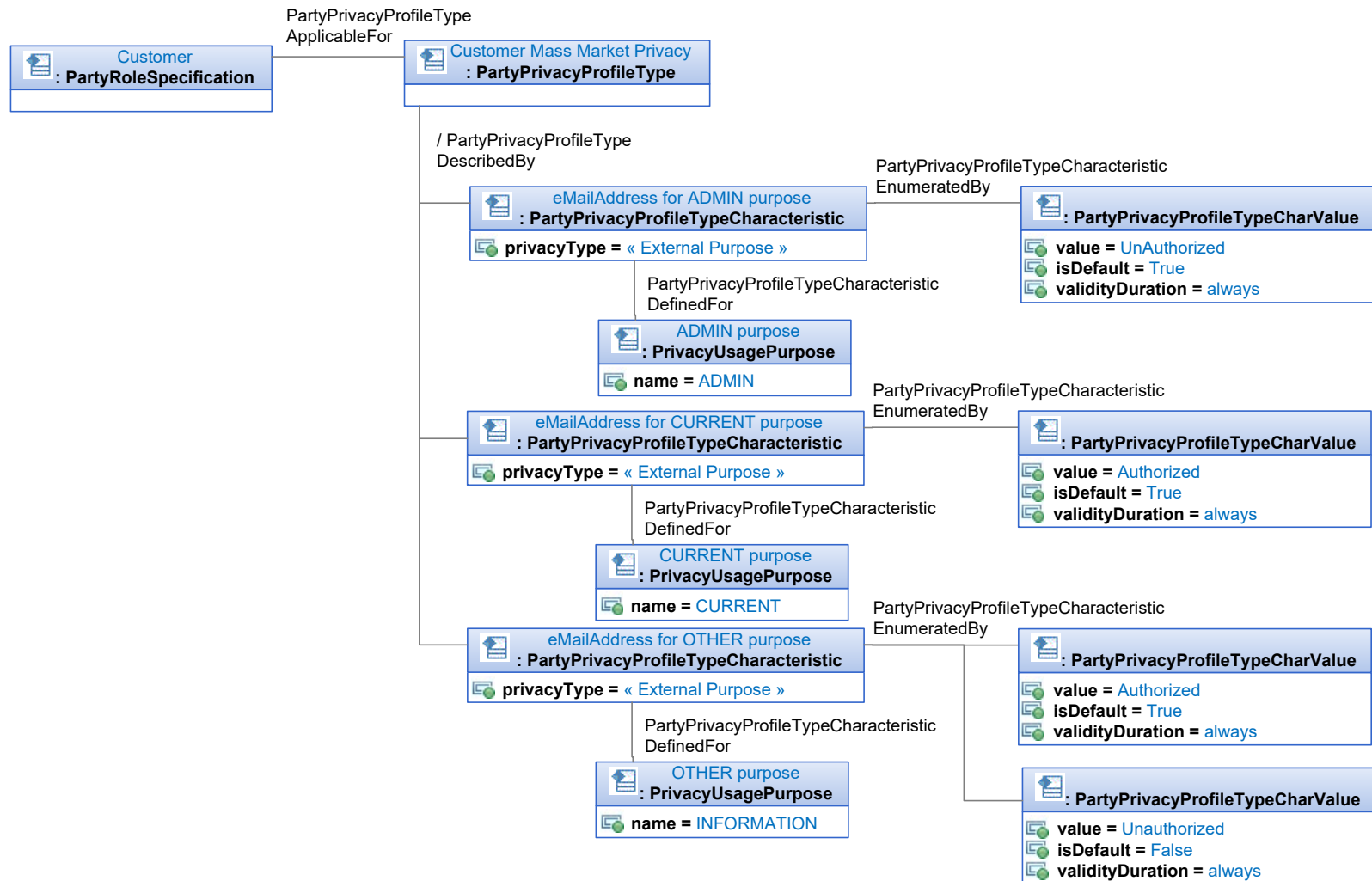


Figure Ppr.02 – Illustration.05 Party Privacy Profile Type overview



And now, to illustrate the specification of retention rules, let's assume that:

- For the eMail Address,
  - the company can keep the information indefinitely,
  - other companies to which the information can't keep it.
- For the Invoice amount,
  - the legal duration of retention is minimum 10 years and is the default duration,
  - the companies accept to keep the information for 20 years
  - and the Customer is able to choose a duration between 10 and 20 years.

This would be described like this:



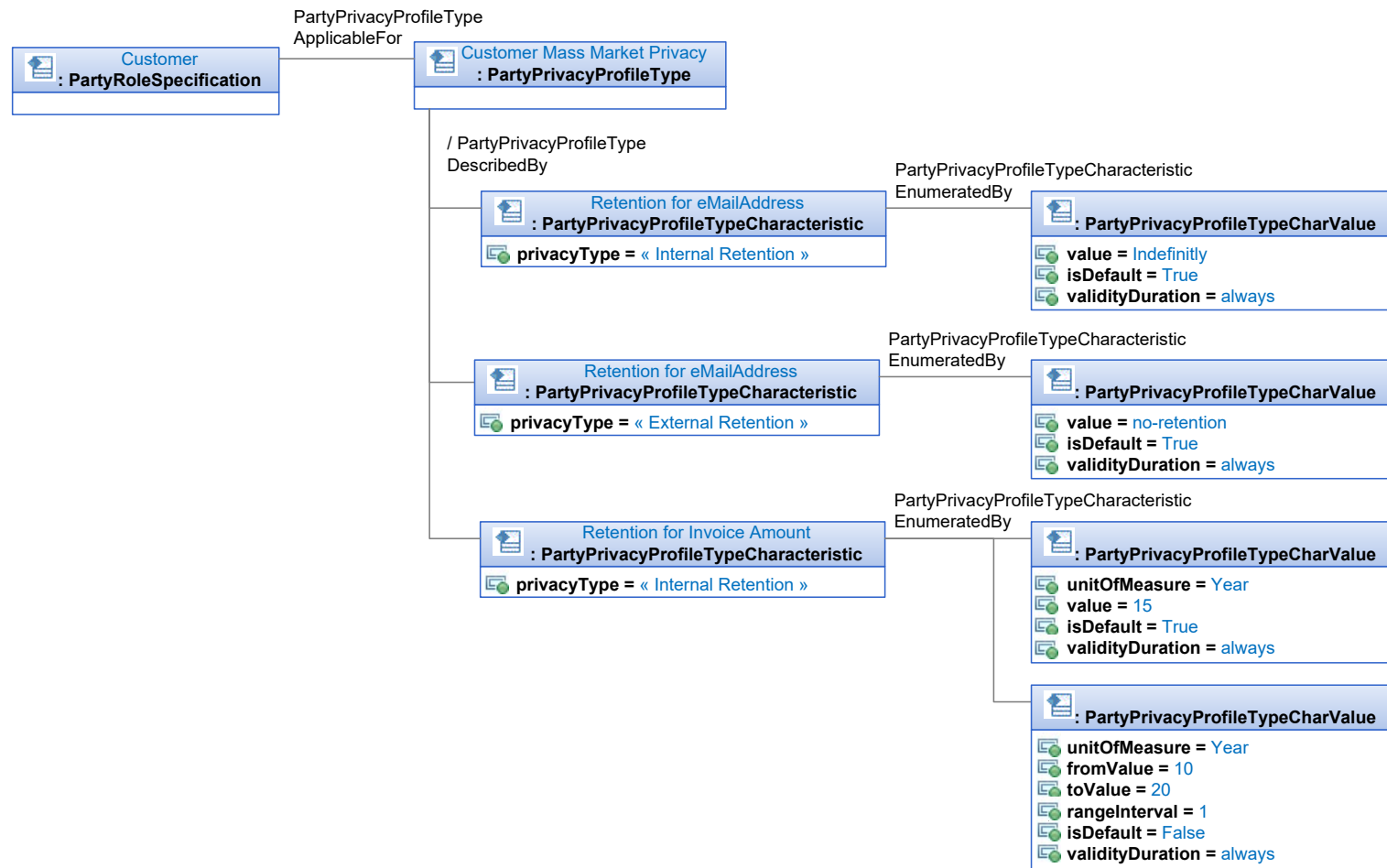
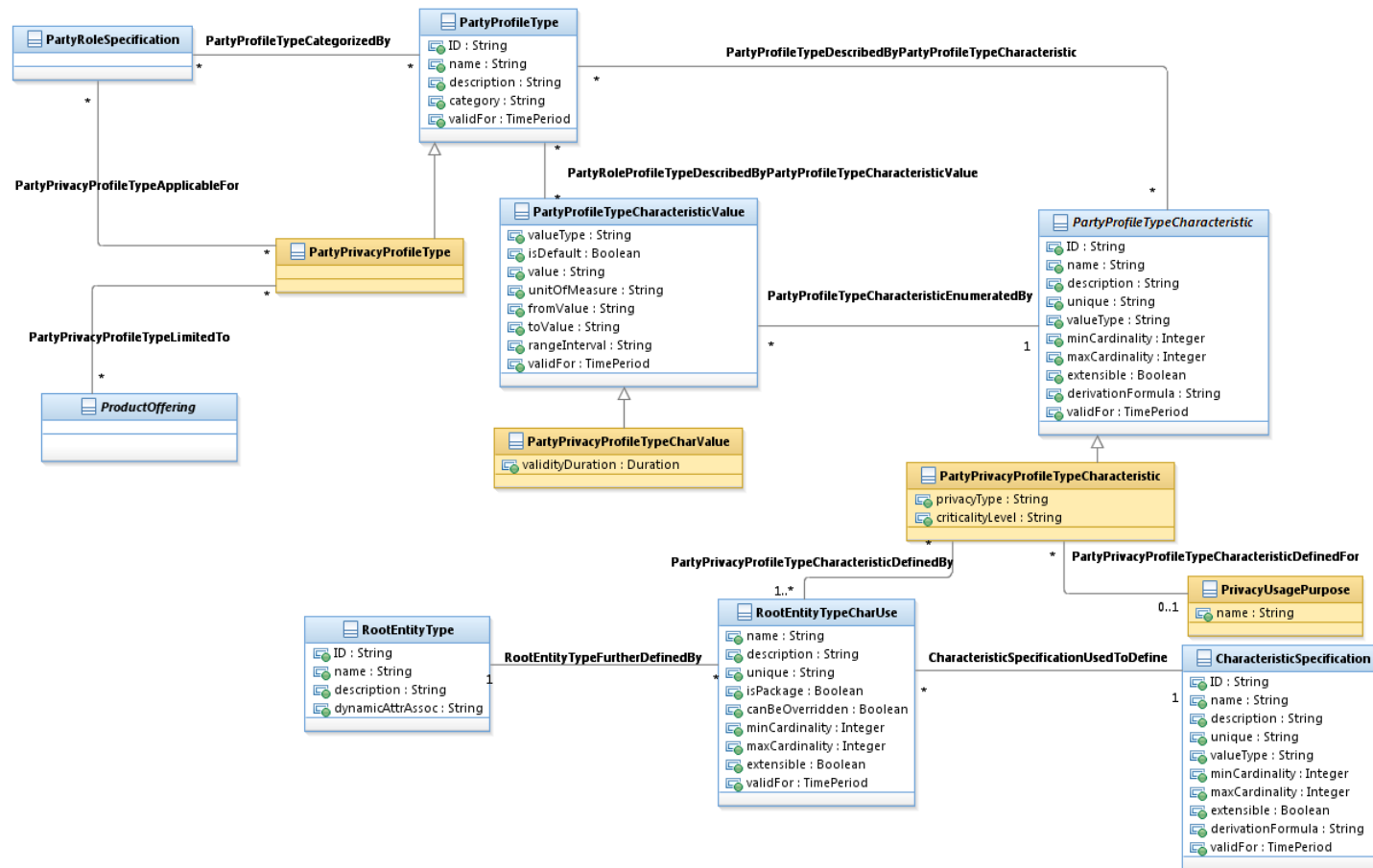


Figure Ppr.02 – Illustration.06 Party Privacy Profile Type overview

The Figure Ppr.03 – Party Privacy Profile Type detailed view shows the inheritance of the Privacy's entities from Profile entities:

- the PartyPrivacyProfileType is a type of PartyProfileType,
- the PartyPrivacyProfileTypeCharacteristic is a type of PartyProfileTypeCharacteristic,
- and the PartyPrivacyProfileTypeCharValue is a type of PartyProfileTypeCharacteristicValue.



**Figure Ppr.03 – Party Privacy Profile Type detailed view**

### **1.2.3 Party Privacy Profile ABE**

When a Party is eligible for a Privacy, then a default PartyPrivacyProfile is created for him according to the PartyPrivacyProfileType. Then if several Privacy options are available, the Party will be able to choose for other values.

The Figure Ppr.04 – Party Privacy Profile overview depicts the relationships between PartyPrivacyProfile and PartyPrivacyProfileType.

A PartyPrivacyProfile corresponds of the instantiation of a PartyPrivacyProfileType agreed by a PartyRole.

The PartyPrivacyProfile is described by the Privacy choices made by the Party (related PartyPrivacyProfileCharValue).

Each PartyPrivacyProfileCharValue instantiates a PartyPrivacyProfileTypeCharValue and specifies the chosen value.

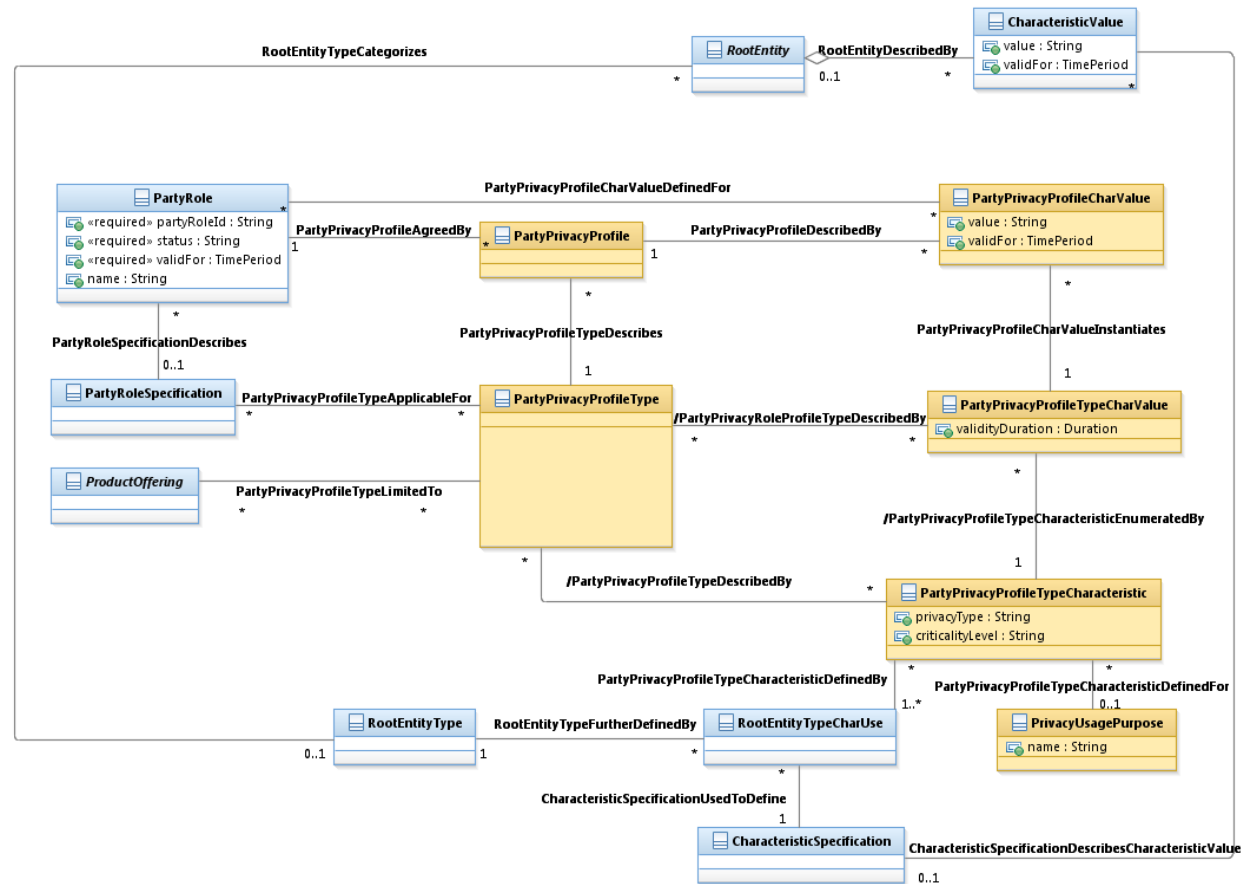


Figure Ppr.04 – Party Privacy Profile overview

As an example, Jon Doe's default Privacy profile would be like this.

Note: the example isn't exhaustive.

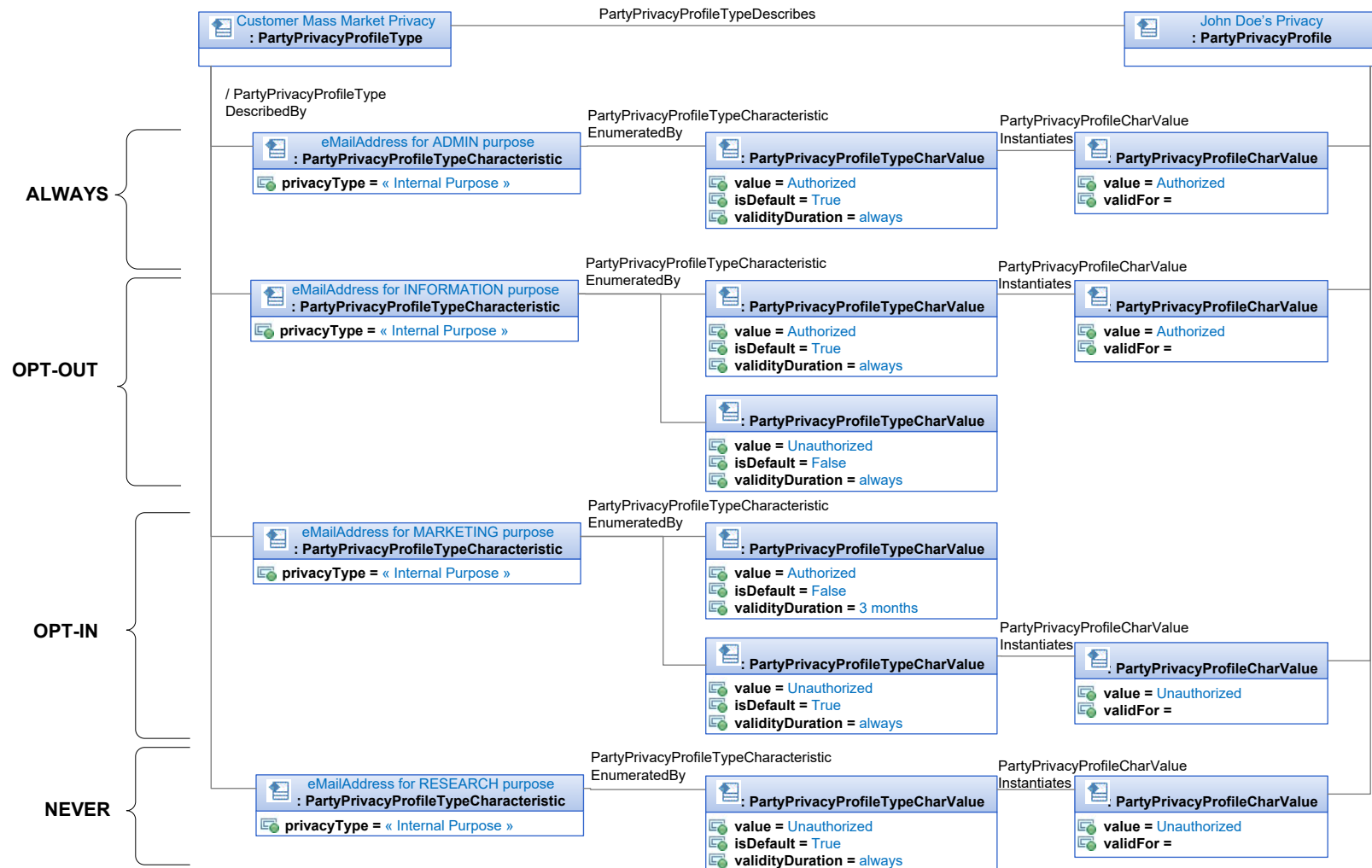


Figure Ppr.04 – Illustration.07 Party Privacy Profile overview

Then Jon Doe is able to choose a different configuration for his Privacy, such as allowing the company to use his eMail Address for Marketing purposes. Then it would change like this:

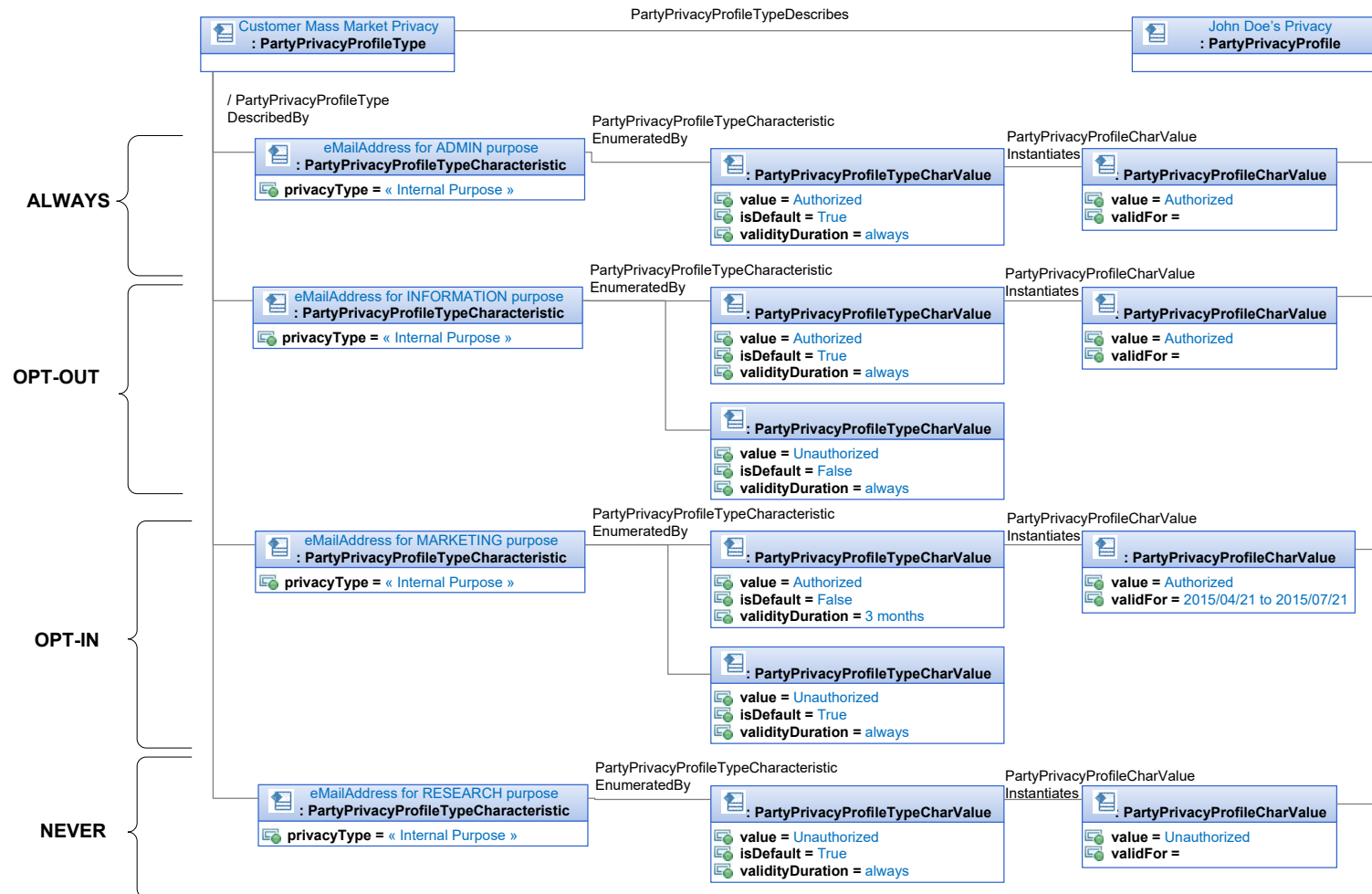


Figure Ppr.04 – Illustration.07 Party Privacy Profile overview

The Figure Ppr. 05 – Party Privacy Profile inheritance view shows the inheritance of the Privacy's entities from Profile entities:

- the PartyPrivacyProfileType is a type of PartyProfileType,
- and the PartyPrivacyProfile is a type of PartyProfile.

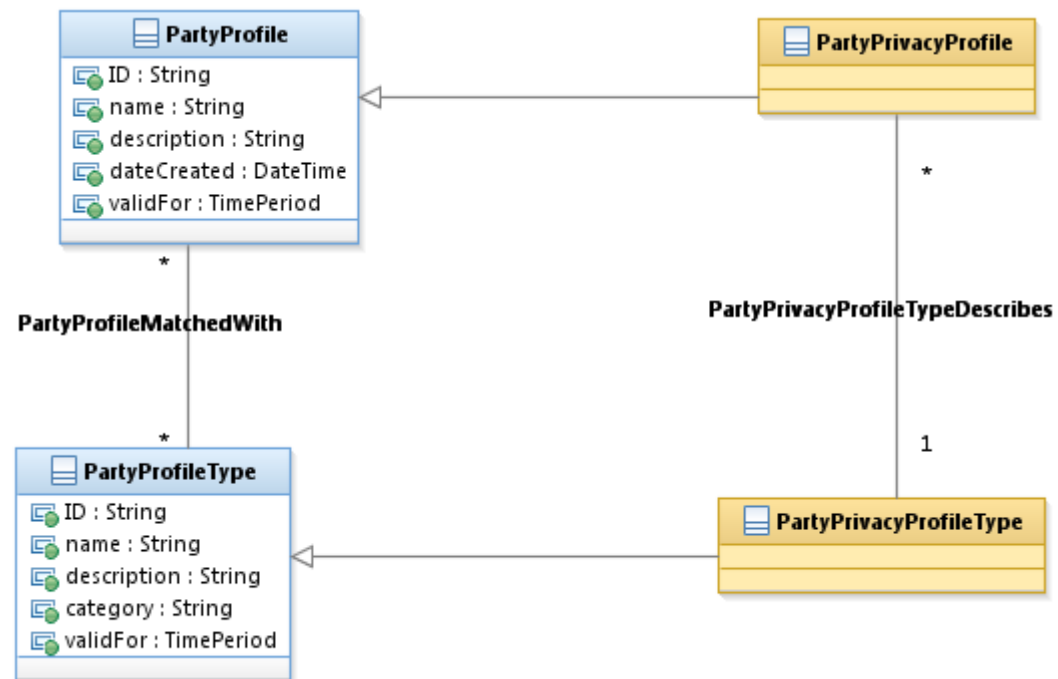


Figure Ppr.05 – Party Privacy Profile inheritance view

The Figure Ppr.06 – Privacy Agreement shows the relationship between Privacy and Agreement.

A complete PartyPrivacyProfile might be agreed by a PartyPrivacyAgreement or sometimes for a high criticality level of a PartyPrivacyProfileTypeCharacteristic, then an agreement might be required for each corresponding PartyPrivacyProfileCharValue.

The PartyPrivacyAgreement enables to track the approval made by the Party.

**Figure Ppr.06 – Privacy Agreement**



#### 1.2.4 Using this model for Process Analysis

When using these entity definitions in process or use case analysis, the most useful entities will be the concrete entities

- Individual
- Organization (and Organization Unit)
- Customer, Supplier, Service Provider ... roles

In some cases, where a lot of references are made to “Individual or Organization”, the use of the Party entity may be worthwhile.

In some cases, it may be useful to refer to the concrete roles as “Customer role”, Supplier Role” ...

If more detailed entities are referenced, then they should be defined and related back to the entities in this model. E.g. “Section is a type of Organization unit that ...”

#### 1.2.5 Further Work Required in Later Releases

This section documents some issues that have not been able to be resolved in this version.

### 1.2.6 Notes:

- Note that these entities represent business concepts in a Service Provider that conforms to the eTOM process model [eTOM].
- Entities that are outside the scope of this model facet are shown with a white fill color.
- This is intended as a “minimalist” model. Subtypes and attributes should be added as required. The attributes shown should be considered as suggested, not required.
- Parent attributes are not repeated in the sub entities
- In most cases relationships are not documented as attributes
- Only significant entities are shown in the “related business entities” cells

When there is a need to show that a Business Entity is only valid for a certain time, this will be shown by an attribute called validFor, of type TimePeriod. In the design model, temporal support may be implemented in other ways, [Fowler-time] but this approach has been chosen for the analysis model as it shows the requirement without cluttering up the model.

Note that the Time Period entity is documented in [BaseTypes].

Also, when there is a need to show that a set of complex business rules exists, a comment is shown on the diagram. In the design model, this may be implemented using a set of policy rule classes or using a rules engine.

### 1.2.7 References

BaseTypes	GB922 Addendum 1BT, SID Base Types
Fowler-AP	Analysis Patterns – Reusable Object Models by Martin Fowler ISBN 0-201-89542-0 <a href="http://martinfowler.com/articles.html">http://martinfowler.com/articles.html</a>
Fowler-Role	Dealing with Roles, <a href="http://www.awl.com/cseng/titles/0-201-89542-0/apsupp/roles2-1.html">http://www.awl.com/cseng/titles/0-201-89542-0/apsupp/roles2-1.html</a>
Fowler-Time	Patterns for things that change with time <a href="http://martinfowler.com/ap2/timeNarrative.html">http://martinfowler.com/ap2/timeNarrative.html</a> Effectivity <a href="http://martinfowler.com/ap2/effectivity.html">http://martinfowler.com/ap2/effectivity.html</a>
Fowler-Range	Range <a href="http://martinfowler.com/ap2/range.html">http://martinfowler.com/ap2/range.html</a>
ACIA	Alliance Common Information Architecture (AT&T, BT & Concert) version 3.1, 15 Dec 2000

BaseTypes	GB922 Addendum 1BT, SID Base Types
eTOM	GB921 version 3.0
HR-XML	HR-XML Person Name Schema/DTD V1.2 <a href="http://www.hr-xml.org/">http://www.hr-xml.org/</a>
Zachman	Zachman Framework <a href="http://www.zifa.com/frmwork2.htm">http://www.zifa.com/frmwork2.htm</a>
Coad-Roles	Coad Letter 76 – January 2001 <a href="http://www.togethercommunity.com/coad-letter/Coad-Letter-0076.html">http://www.togethercommunity.com/coad-letter/Coad-Letter-0076.html</a>
Coad-Archetypes	Modeling with Color <a href="http://www.togethersoft.com/services/tutorials/jmcu/index.html">http://www.togethersoft.com/services/tutorials/jmcu/index.html</a>
Bus-Patterns	Business Modeling with UML, Business Patterns at Work Hans-Erik Eriksson, Magnus Penker ISBN 0-471-29551-5
Metasolv	Sales & Marketing Business Objects Document
Larman	Applying UML and Patterns, Second Edition, ISBN 0-13-095004-1 <a href="http://www.craiglarman.com/book_applying_2nd/Applying_2nd.htm">http://www.craiglarman.com/book_applying_2nd/Applying_2nd.htm</a>
Sesera	A Recurring Fulfilments Analysis Pattern, Lubor Sesera <a href="http://jerry.cs.uiuc.edu/~plop/plop2k/proceedings/Sesera/Sesera.pdf">http://jerry.cs.uiuc.edu/~plop/plop2k/proceedings/Sesera/Sesera.pdf</a>
Baumer	The Role Object (Design) Pattern. Download PDF from <a href="http://www.riehle.org/computer-science-research/1997/plop-1997-role-object.html">http://www.riehle.org/computer-science-research/1997/plop-1997-role-object.html</a>
OMG	Party Management Facility Specification 1.0 Feb 2001 <a href="http://www.omg.org/">http://www.omg.org/</a>
AP ADDR STDS	Australia Post – Presentation Standards Booklet. <a href="http://www.auspost.com.au/futurepost/index.asp?link_id=9.1575">http://www.auspost.com.au/futurepost/index.asp?link_id=9.1575</a>
ISO 4217	ISO 4217:2001 Codes for the representation of currencies and funds
Composite Pattern	Articles : Composite à la Java, Part I & II <a href="http://www.research.ibm.com/designpatterns/publications.htm">http://www.research.ibm.com/designpatterns/publications.htm</a>
Coad Letter	The Coad Letter: Issue 103 - Party Time The Coad Letter: Issue 107 - Party Time, Part 2: Modeling Party Id's <a href="http://www.thecoadletter.com/">http://www.thecoadletter.com/</a>
JOT- Mossé	Francis G. Mossé: <i>Modeling Roles – A Practical Series of Analysis Patterns</i> , in Journal of Object Technology, vol. 1, no. 4, September-October 2002, pages 27-37. <a href="http://www.jot.fm/issues/issue_2002_09/column2">http://www.jot.fm/issues/issue_2002_09/column2</a>

BaseTypes	GB922 Addendum 1BT, SID Base Types
JOT-Odell	James Odell et al.: <i>The Role of Roles</i> , in Journal of Object Technology, vol. 2, no. 1, January-February 2003, pages 39-51. <a href="http://www.jot.fm/issues/issue_2003_01/column5">http://www.jot.fm/issues/issue_2003_01/column5</a>

### 1.2.8 Standard citation for this document

TM Forum SID GB922 Addendum 1P (Party)

Chris Hartley et al.

URL: <http://www.tmforum.org/>

## 1.3 Business Entity Examples

A few simplified examples have been included to help understand the model (so this model is not completely consistent with the main model).

Note that Visio cannot display association class objects, so these are missing from the examples.

Note that these examples are designed to be instructive. They are not designed to be complete and are simplified to show the main points of the model.

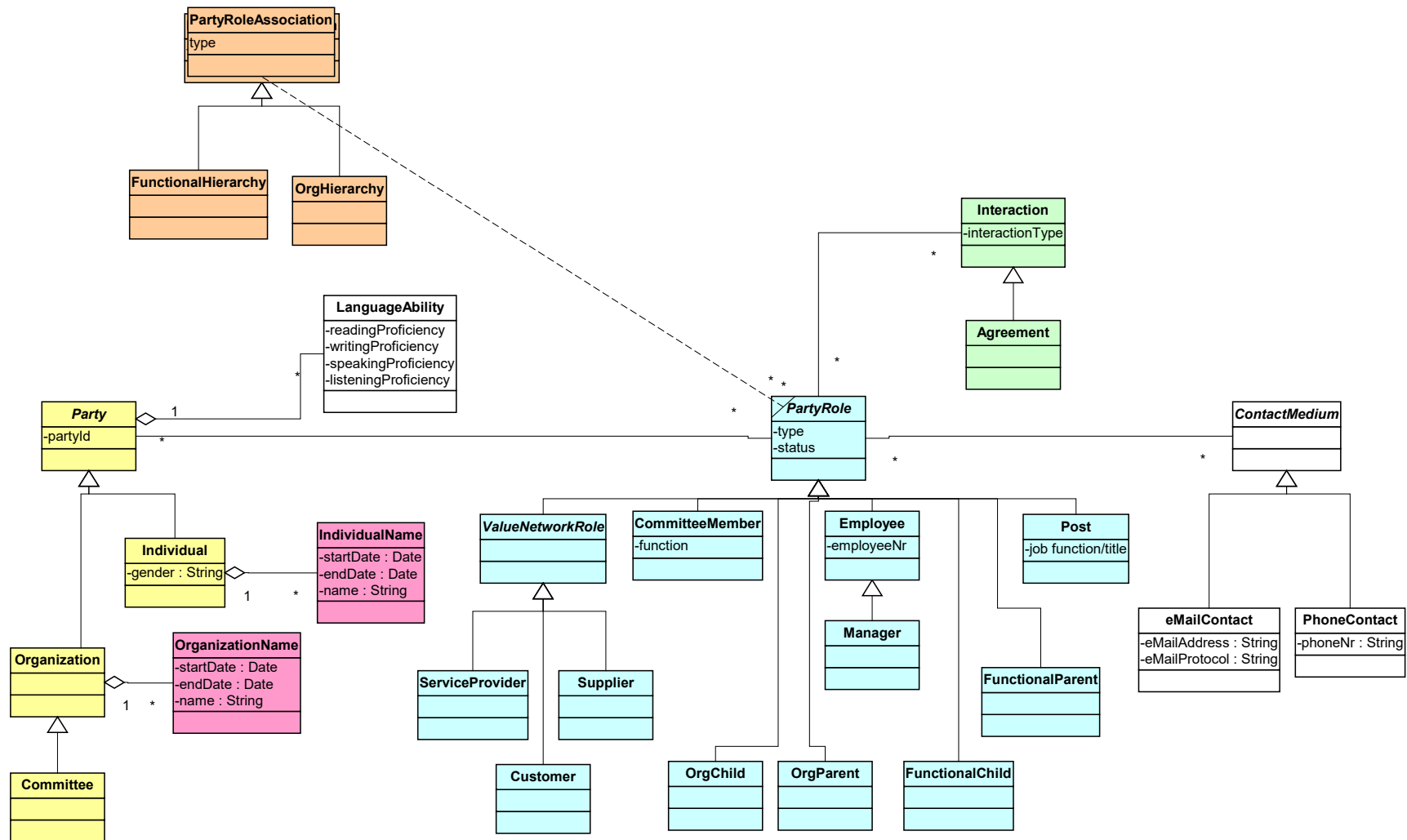


Figure E1 – Simplified Class Diagram Used for Examples

#### 1.3.1.1 Example 1

Telco is a Service Provider that has two departments, Engineering and Operations.

Chris works for Telco, in the Internal plant section of the engineering department.

Jane is the head of the Engineering department.

Jane got married on 23/11/01 and her name changed from Jane Smith to Jane Lamborgizzia.

Chris was assigned to the post of “Engineering Department Fire Warden” from 22/8/1988 to 25/12/2001.

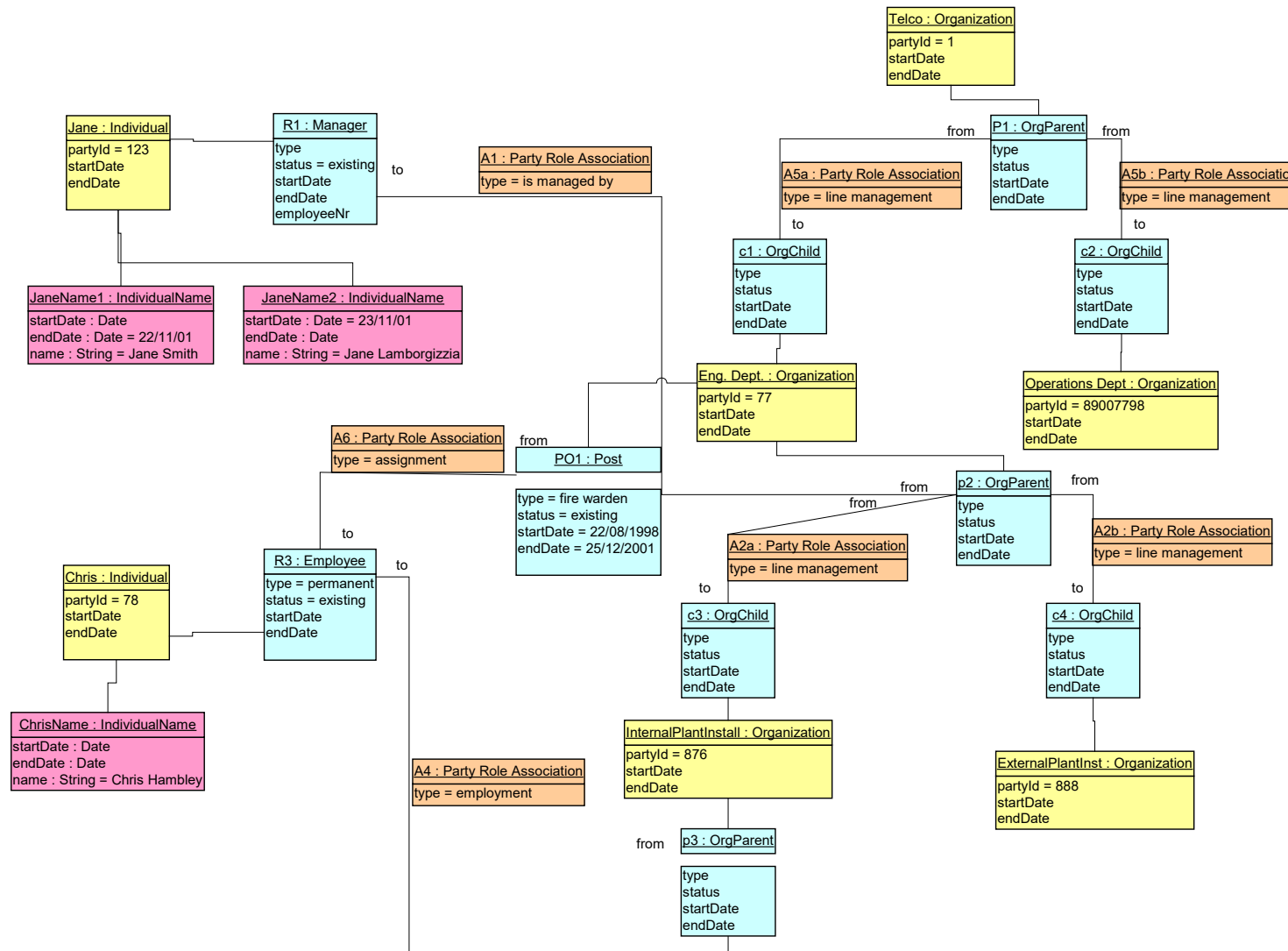


Figure E2 – Example 1 – Organization Hierarchy & Name Change



### 1.3.1.2 Example 2

Telco has a business customer EveDotCom.

EveDotCom is also a supplier to Telco.

Adam is the managing director of EveDotCom and he is also a customer of Telco.

Telco has an Internal Communications section to manage its own communication needs.

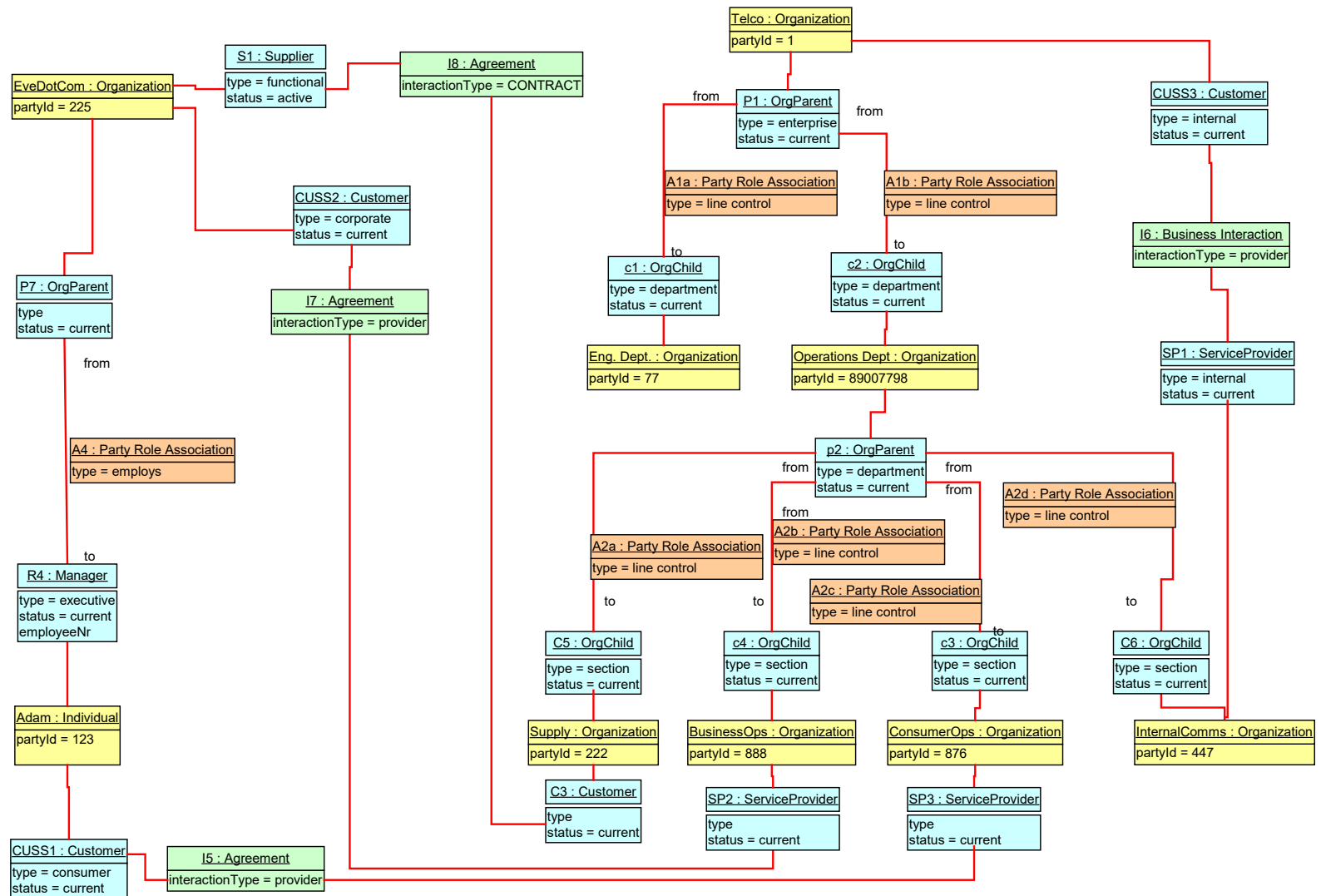


Figure E3 – Example 2 – Value Fabric, Supplier, Customer

### 1.3.1.3 Example 3

Telco is looking at expanding by opening an international section in Germany.

It is building a list of prospective employees, clients and suppliers.

Hans is a possible customer. His language abilities are unknown. (He may be from Eastern Europe so we won't assume he speaks German).

BayernElektronik are a possible design and construct company (supplier).

Gretel is a possible employee. She can speak German and good English.

Telco bought a mailing list containing Hans's name and has had no contact with him yet.

Telco has signed a Memorandum of Understanding (MOU) with BayernElektronik.

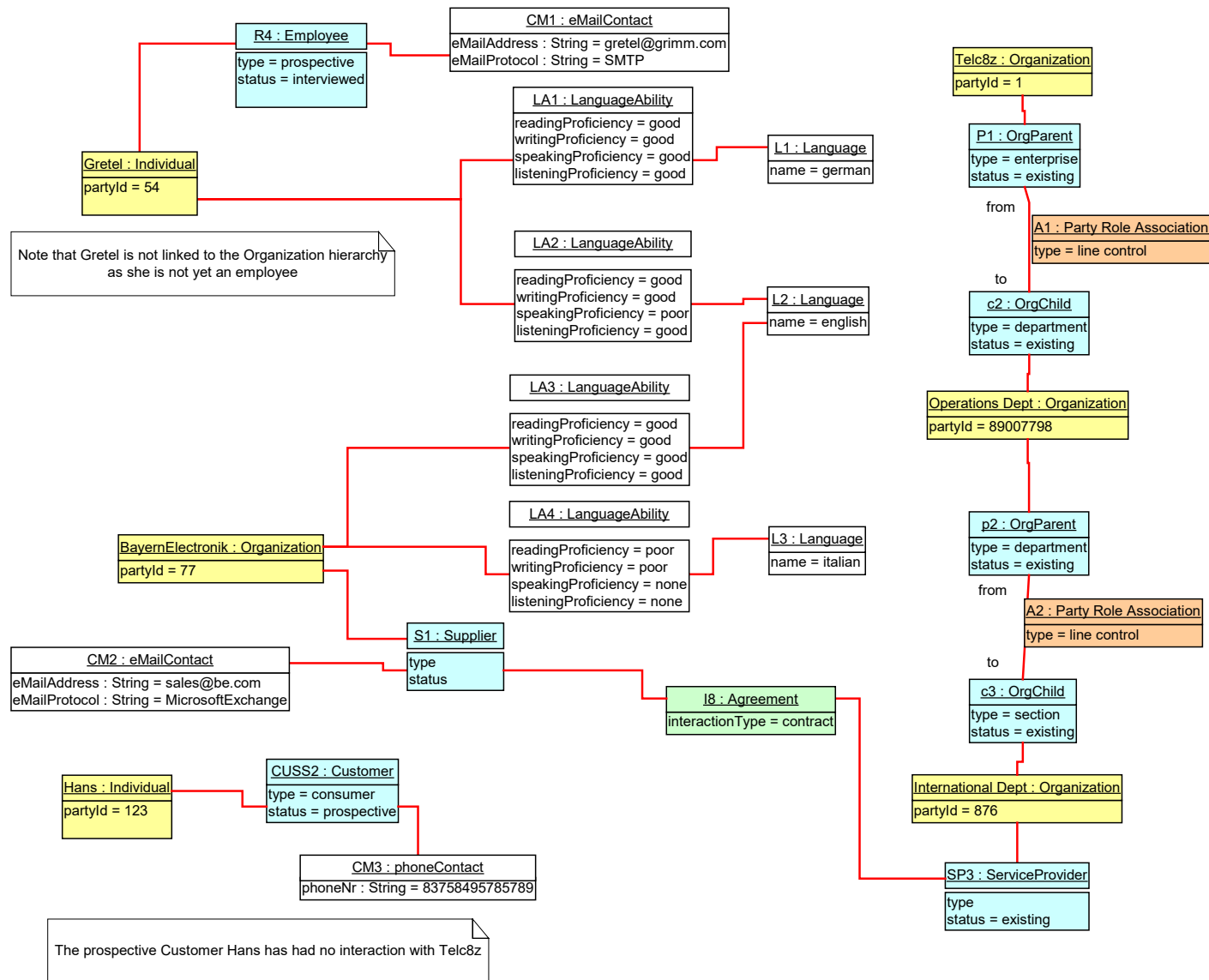


Figure E4 – Example 3 - Prospective Party Roles, Contact Medium & Language Ability

#### 1.3.1.4 Example 4

This is a simple example, showing how the SID Party model can be used to represent a matrix organization.

The matrix is formed by considering both line control & functional control as separate axes of the matrix.

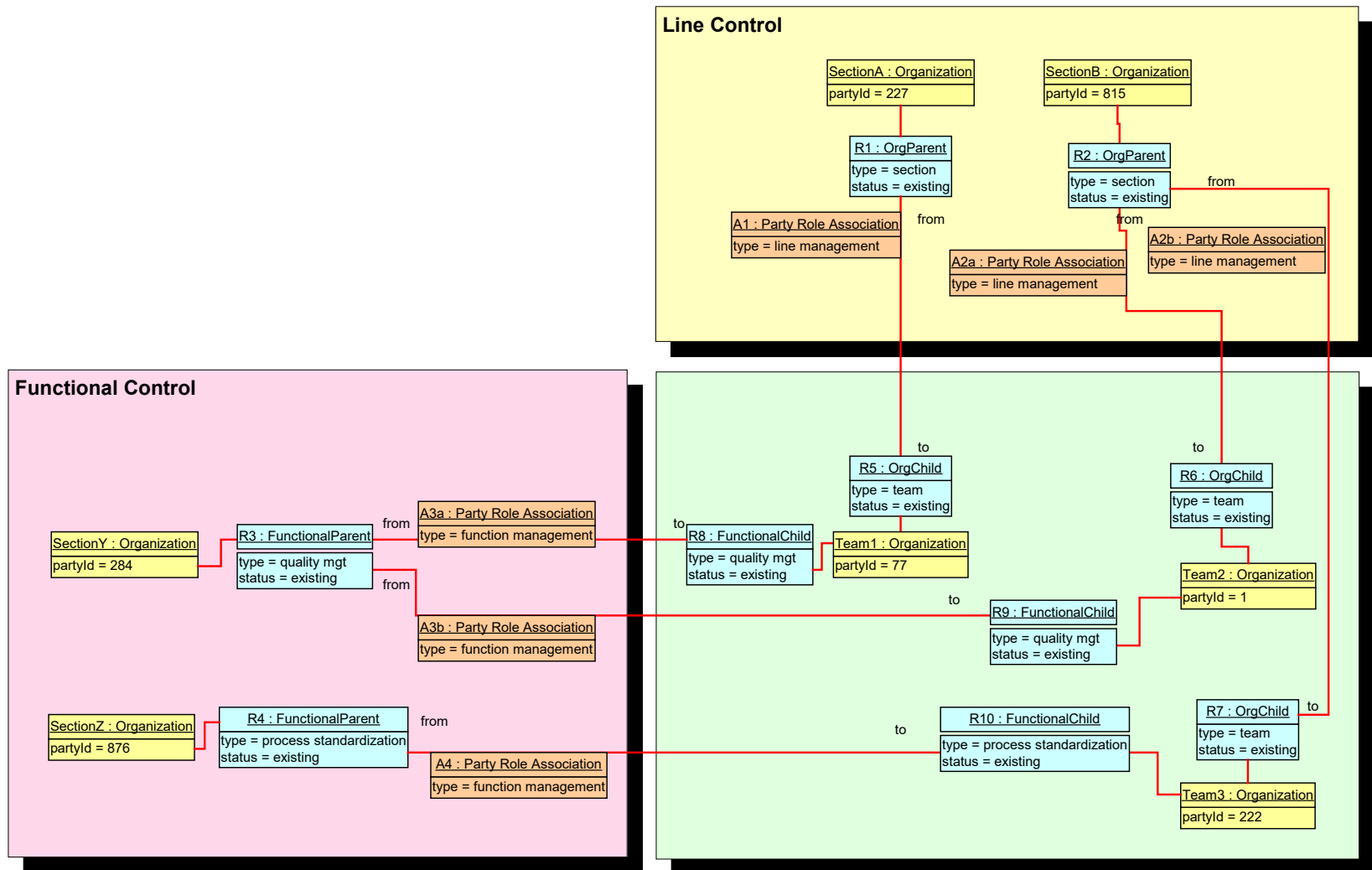


Figure E5 – Example 4

## 2 Administrative Appendix

This Appendix provides additional background material about the TM Forum and this document. In general, sections may be included or omitted as desired; however, a Document History must always be included.

### 2.1 About this document

This is a TM Forum Guidebook. The guidebook format is used when:

- The document lays out a 'core' part of TM Forum's approach to automating business processes. Such guidebooks would include the Telecom Operations Map and the Technology Integration Map, but not the detailed specifications that are developed in support of the approach.
- Information about TM Forum policy, or goals or programs is provided, such as the Strategic Plan or Operating Plan.
- Information about the marketplace is provided, as in the report on the size of the OSS market.

### 2.2 Document History

#### 2.2.1 Version History

This section records the changes between this and the previous document version as it is edited by the team concerned. Note: this is an incremental number which does not have to match the release number.

Version	Date	Modified By	Purpose
0.1	April 2002		Document created. Party copied from old template.
0.2	Feb 2002		Updates from Team review, Identity added, Matrix Organization example added
0.3	April 2002		Minor updates for TMW Nice
0.5	April 2002		Final Version for Nice
1.0	June 2002		Formatted for Member Evaluation release

Version	Date	Modified By	Purpose
1.1c	Sep 2002		Various updates from team feedback. Identity removed. Base types moved to new document Addendum 1BT.
1.5	Dec 2002		Formatted for Member Evaluation Release
1.6	March 2003		Addition of Party Identification. Some attributes moved from Individual to Party Identification
3.0	May 2003		Final Release for TMW Nice, numbering aligned with NGOSS release
3.1	July 2003		Formatted for Member Review with NGOSS R3.5
3.2	Aug 2004		To reflect TMF Approval Status
9.0	Jan 2010		Updates to reflect SID Phase IX Change Requests
9.1	Apr 2010		Minor cosmetic corrections for web posting and ME
9.2	Jun 2010		Updated Notice
9.3	Oct 2010		Updated to reflect TM Forum Approved status
9.5	Jan 2011		Update based on approved change requests
9.6	Mar 2011		Notice updated, minor formatting corrections prior to web posting and ME
9.7	Sep 2011		Updated to reflect TM Forum Approved status
9.8	Jun 2013		Incorporation of CR: Artf1431 (Figures 2, 3 and 8)
9.9	Jul 2013		Updated cover & header, corrected notice & footer prior to posting
9.10	Sep 2013		Updating figures to reflect changes in PartyInteractionRole
9.10.1	Oct 2013		Updated cover, header & footer prior to posting
10.0	Apr 2014		Copy of pertinent information to the model and removal of Business Interaction section. Update of cover header and footer.
10.0.1	Apr 2014		Updated cover, footer & Notice; minor cosmetic fixes prior to posting
14.5.0	Oct 2014		Corrected DemoCharacteristicValue attribute name "default" to "isDefault" to correct validator error.



Version	Date	Modified By	Purpose
15.0.0	Apr 2015		Implement CR artf5170 and added Party Community from the deprecated Supplier/Partner domain
15.0.1	May 2015		Updated cover, minor cosmetic corrections
15.5.0	Nov 2015		Added BusinessOperationEntity and Currency related section and updated figures impacted
15.5.1	Nov 2015		Updated cover, minor cosmetic fixes prior to publishing
15.5.2	Mar 2016		Updated cover, header, footer and Notice to reflect TM Forum Approved status
16.5.0	Nov 2016		updated for introducing the PartyRoleGroup
17.0.0	June 2017		Add relationship between Currency and PartyAccount through a PartyAccountCurrency entity
17.0.1	23 June 2017		Applied rebranding and minor cosmetic edits prior to publication for Fx17
17.0.2	5 Oct 2017		Updated for re-issue to restore R16.5.0 content
17.0.3	16 Nov 2017		Minor cosmetic edits prior to publishing
17.5.0	Sept 2017		Correct typo from relationship name (Figure P.06); attribute name fixed
17.5.1	15 Dec 2017	Adrienne Walcott	Formatting/style edits prior to publishing
17.5.2	06 Mar-2018	Adrienne Walcott	Updated to reflect TM Forum Approved Status
19.0.0	03 Apr 2019	Cécile Ludwiczowski	Fix typo error on OrganizationDecomposition entity names Include Party Privacy ABE description. Detail PartyRoles in the different Domains
19.0.1	17-Oct-2019	Adrienne Walcott	Updated to reflect TM Forum Approved Status

## 2.2.2 Release History

This section records the changes between this and the previous Official document release.

Release Number	Date Modified	Modified by:	Description of changes
9.0	January 2010	John Reilly	Updates to reflect SID Phase IX Change Requests

Release Number	Date Modified	Modified by:	Description of changes
9.5	January 2011	Josh Salomon	Update based on approved change requests
13.0	June 2013	Cécile Ludwiczowski	Incorporation of CR: Artf1431 (Figures 2, 3 and 8)
13.5	September 2013	Josh Salomon	Update figures to reflect changes in PartyInteractionRole
14.0	April 2014	Avi Talmor	Copy of pertinent information to the model and removal of Business Interaction section. Update of cover header and footer.
14.5.0	Oct 2014	John Reilly	Update Figure number format, replace old Rational Rose figures with RSA figures, DemoCharacteristicValue attribute name.
15.0.0	Apr 2015	Yiling(Sammy) Liu / John Reilly	Implement CR artf5170 and added Party Community from the deprecated Supplier/Partner domain
15.5.0	Nov 2015	Yiling(Sammy) Liu	Added BusinessOperationEntity and Currency related section and updated figured impacted
16.5.0	Nov 2016	Cécile Ludwiczowski / Kevin Scaggs	updated for introducing the PartyRoleGroup
17.0.0	June 2017	Cécile Ludwiczowski	Add relationship between Currency and PartyAccount through a PartyAccountCurrency entity
17.0.1	November 2017	Adrienne Walcott	Updated to reflect TM Forum Approved Status
17.5.0	December 2017	Cécile Ludwiczowski	Correct typo from relationship name (Figure P.06) attribute name fixed
17.5.1	06 Mar-2018	Adrienne Walcott	Updated to reflect TM Forum Approved Status
19.0.0	03 Apr 2019	Cécile Ludwiczowski	Fix typo error on OrganizationDecomposition entity names Include Party Privacy ABE description. Detail PartyRoles in the different Domains

Release Number	Date Modified	Modified by:	Description of changes
19.0.1	17-Oct-2019	Adrienne Walcott	Updated to reflect TM Forum Approved Status

## 2.3 Acknowledgments

This document was prepared by the members of the TM Forum Information Framework (SID) team:

The Shared Information/Data Model is a genuinely collaborative effort. The TM Forum would like to thank the following people for contributing their time and expertise to the production of this document. It is just not possible to recognize all the organizations and individuals that have contributed or influenced the introduction. We apologize to any person or organization we inadvertently missed in these acknowledgments.

Key individuals that reviewed, provided input, managed, and determined how to utilize inputs coming from all over the world, and really made this document happen were:

Name	Affiliation
Rick Cobb	Dorado Software
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Johan Vandenberghe	Lucent Technologies
Al Vincent	IGS
Yiling(Sammy) Liu	Huawei
Cécile Ludwichowski	Orange
Kevin Scaggs	ATT