



Framework Specification

Party Management API REST Specification

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INTRODUCTION

The following document is the specification of the REST API Party Management.

The party management API provides standardized mechanism for party management such as creation, update, retrieval, deletion and notification of events.

Party can be an individual or an organization that has any kind of relation with the enterprise.

Party is created to record individual or organization information before the assignment of any role.

For example, within the context of a split billing mechanism, Party management API allows creation of the individual or organization that will play the role of 3rd payer for a given offer and, then, allows consultation or update of his information.

Party management API manages the following data resources:

- **Individual**
 - o Individual represents a single human being (a man, woman or child). The individual can be a customer, an employee or any other person that the organization needs to store information about.
 - o Main Individual attributes are its identifier, place of birth, country of birth, nationality, marital status, birth and death dates, disability, title, , names (given, family, middle, etc.), location, individual identification, related parties
- **Organization**
 - o Organization represents a group of people identified by shared interests or purpose. Examples include business, department, and enterprise. Because of the complex nature of many businesses, both organizations and organization units are represented by the same data
 - o Main organization attributes are its identifier, type, legal entity, date of creation and cessation, trading name and type, other name, organization identifier, related parties and organization relationships (Parent and Child)

Party management API performs the following operations on individuals and organizations:

- Retrieval of an individual or organization or of a collection of them depending on filter criteria
- Full update of an individual or organization
- Partial update of an individual or organization
- Creation of an individual or organization
- Deletion of an individual or organization (for administration purposes)
- Notification of events:
 - o Individual create
 - o Individual update
 - o Individual delete
 - o Organization create
 - o Organization update
 - o Organization delete

SAMPLE USE CASES

Reader will find example of use cases using Party management API in “Open Digital Business Scenarios and Use Cases” document.

RESOURCE MODEL

Managed Entity and Task Resource Models

For every single resource managed by the API provide a JSON based representation of the managed entities and tasks.

INDIVIDUAL RESOURCE

An Individual represents a physical person.

JSON representation of an Individual

```
{
  "id": "i42",
  "href": "http://serverlocation:port/partyManagement/individual/i42",
  "gender": "male",
  "placeOfBirth": "http://goo.gl/maps/l8F9L",
  "countryOfBirth": "Austria",
  "nationality": "Canadian",
  "maritalStatus": "never married",
  "disability": [
    {
      "disability": "blind"
    }
  ],
  "birthDate": "1961-03-05T00:00:00.0Z",
  "characteristic": [
    {
      "name": "hobby",
      "value": "hockey"
    },
    {
      "name": "",
      "value": ""
    }
  ],
  "title": "",
  "givenName": "John",
  "familyName": "Smith",
  "middleName": "",
  "fullName": "",
  "formattedName": "",
  "otherName": [
    {
      "title": "",
      "givenName": "",
      "familyName": "",
      "middleName": "",
      "fullName": "",
      "formattedName": ""
    }
  ]
}
```

```
        "validFor": {
          "startDateTime": "2013-04-19T16:42:23.0Z",
          "endDateTime": "2013-06-19T00:00:00.0Z"
        }
      },
    ],
    "location": "http://goo.gl/maps/l8F9L",
    "status": "Initialized",
    "individualIdentification": [
      {
        "type": "Passport",
        "identificationId": "73736625252",
        "issuingAuthority": "",
        "issuingDate": "2013-06-19T00:00:00.0Z"
      },
      {
        "type": "SocialSecurityNumber",
        "identificationId": "33636363",
        "issuingAuthority": "",
        "issuingDate": "2013-06-19T00:00:00.0Z"
      }
    ],
    "externalReference": [
      {
        "href": "http://facebook.com/17263635",
        "type": "FacebookID"
      },
      {
        "href": "http://google.com/17263635",
        "type": "GoogleID"
      }
    ],
    "relatedParty": [
      {
        "id": "1",
        "href": "http://serverlocation:port/partyManagement/organization/1",
        "role": "Employee",
        "name": "Richard Cole",
        "validFor": {
          "startDateTime": "2013-04-19T16:42:23.0Z",
          "endDateTime": "2013-06-19T00:00:00.0Z"
        }
      }
    ],
    "contactMedium": [
      {
        "type": "Email",
        "validFor": {
          "startDateTime": "2013-04-19T16:42:23.0Z"
        },
        "medium": {
          "emailAddress": "abc@tmforum.com"
        }
      }
    ],
    {
```

```

    "type": "PostalAddress",
    "validFor": {
      "startTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
      "city": "Wien",
      "country": "Austria",
      "postcode": "1020",
      "stateOrProvince": "Quebec",
      "street1": "Lassallestrasse7",
      "street2": ""
    }
  },
  {
    "type": "TelephoneNumber",
    "validFor": {
      "startTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
      "type": "mobile",
      "number": "+436641234567"
    }
  },
  {
    "preferred": true,
    "type": "TelephoneNumber",
    "validFor": {
      "startTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
      "type": "business",
      "number": "+436641234567"
    }
  }
]
}

```

Field Descriptions :

Characteristic: describes the characteristics of the individual such as individual hobbies, center of interests.

Field	Description
name	Name of the characteristic
value	Value of the characteristic

ContactMedium: indicates the contact medium that could be used to contact the customer.

Field	Description
preferred	If true, indicates that is the preferred contact medium
type	Email address, telephone number, postal address

validFor	The time period that the contact medium is valid for
-----------------	--

Disability: indicate lack or inadequate strength or ability

Field	Description
disability	Physical or mental handicap

ExternalReference: to manage touch points to external OTT identifiers for the person (facebook, google+, ...).

Field	Description
href	External reference
type	Reference type

Individual: represents a physical person.

Field	Description
birthdate	Birth date
countryOfBirth	The country of birth
deathDate	Death date
familyName	Last name
formattedName	A formatted name useful for specific contexts (Chinese, Japanese, Korean, ...)
fullName	Full name flatten (first, middle, and last names)
gender	Gender
givenName	First name
href	Reference of the individual
id	Unique identifier for the individual
location	Temporary current location of the individual (may be used if the individual has approved its sharing)
maritalStatus	Marital status (married, divorced, widow, ...)
middleName	Middle names
nationality	Nationality
placeOfBirth	An hyperlink to the place of birth
status	Status of the individual - Initialized, Validated, Deceased
title	Useful for titles (aristocratic, social, ...) : Pr, Dr, Sir, ...

IndividualIdentification: represents our registration of information used as proof of identity by an individual (passport, national identity card, driver's license, social security number, birth certificate)

Field	Description
identificationId	identifier
issuingAuthority	Authority which has issued the identifier (social security, town hall...)
issuingDate	Date at which the identifier was issued
type	Identification type (passport, national identity card, driver's license, social security number, birth certificate)

Medium: describes the contact medium that could be used to contact the customer

Field	Description
city	City
country	Country
emailAddress	Full email address in standard format
type	Type of medium (fax, mobile phone...)
number	Phone number
postcode	Postcode
stateOrProvince	State or province
street1	Describes the street
street2	Complementary street description

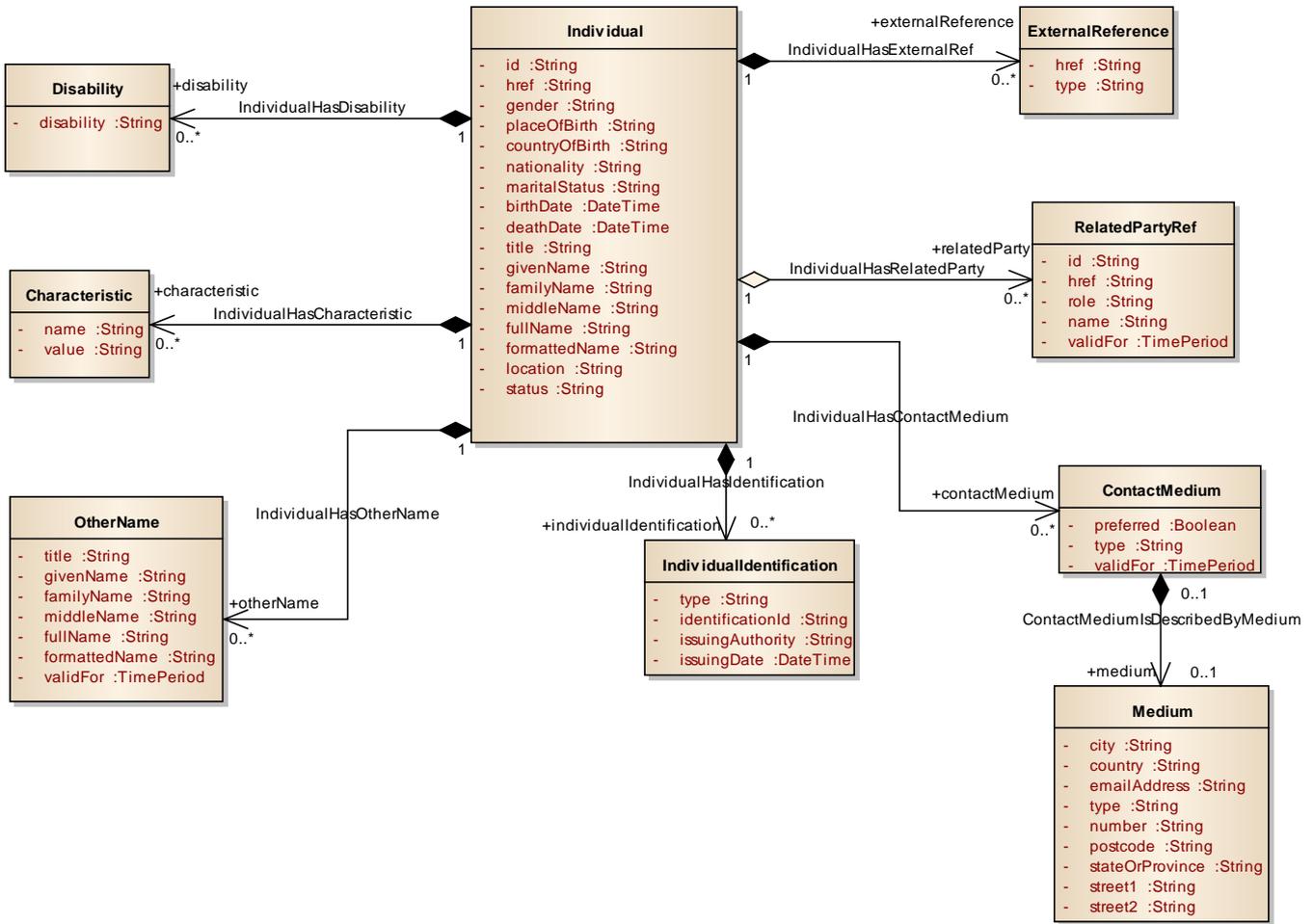
OtherName: To keep track of other names (for example the old name of a woman before marriage or an artist name)

Field	Description
title	Useful for titles (aristocratic, social, ...): Pr, Dr, Sir,...
givenName	First name
familyName	Last name
middleName	Middle names
fullName	Full name flatten (first, middle, and last names)
formattedName	A formatted name useful for specific contexts (Chinese, Japanese, Korean, ...)
validFor	The period for which the other name is valid

RelatedParty: Defines party or partyRole linked to a specific entity.

Field	Description
id	Unique identifier of related party
href	Reference of the relatedParty, could be a party reference or a partyRole reference
role	Role of the related party
name	Name of the related party
validFor	The period for which the related party is valid

UML Model:



ORGANIZATION RESOURCE

JSON representation of an Organization

```
{
  "id": "128",
  "href": "http://serverlocation:port/partyManagement/organization/128",
  "isLegalEntity": true,
  "type": "Company",
  "existsDuring": {
    "startDate": "2013-04-19T16:42:23.0Z"
  },
  "tradingName": "Telekom",
  "nameType": "Co.",
  "status": "Initialized",
  "otherName": {
    "nameType": "Co.",
    "tradingName": "Orange",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  },
  "characteristic": {
    "name": "industry",
    "value": "telecom"
  },
  "organizationIdentification": {
    "type": "CompanyRegistrationNumber",
    "identificationId": "374748328",
    "issuingAuthority": "",
    "issuingDate": "2013-06-19T00:00:00.0Z",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  },
  "externalReference": [
    {
      "href": "http://facebook.com/17263635",
      "type": "FacebookID"
    },
    {
      "href": "http://google.com/17263635",
      "type": "GoogleID"
    }
  ],
  "relatedParty": {
    "id": "12",
    "href": "http://serverlocation:port/partyManagement/organization/12",
    "role": "Vendor",
    "name": "Richard Cole",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",

```

```

        "endTime": "2013-06-19T00:00:00.0Z"
    },
    },
    "organizationParentRelationship": {
        "relationshipType": "Juridical",
        "id": "13",
        "href": "http://serverlocation:port/partyManagement/organization/13",
        "validFor": {
            "startTime": "2013-04-19T16:42:23.0Z",
            "endTime": "2013-06-19T00:00:00.0Z"
        }
    },
    },
    "organizationChildRelationship": {
        "relationshipType": "Juridical",
        "id": "16",
        "href": "http://serverlocation:port/partyManagement/organization/16",
        "validFor": {
            "startTime": "2013-04-19T16:42:23.0Z",
            "endTime": "2013-06-19T00:00:00.0Z"
        }
    },
    },
    "contactMedium": [
        {
            "type": "Email",
            "validFor": {
                "startTime": "2013-04-19T16:42:23.0Z"
            },
            "medium": {
                "emailAddress": "abc@tmforum.com"
            }
        },
        {
            "type": "PostalAddress",
            "validFor": {
                "startTime": "2013-04-19T16:42:23.0Z"
            },
            "medium": {
                "city": "Wien",
                "country": "Austria",
                "postcode": "1020",
                "stateOrProvince": "Quebec",
                "street1": "Lassallestrasse7",
                "street2": ""
            }
        },
        {
            "type": "TelephoneNumber",
            "validFor": {
                "startTime": "2013-04-19T16:42:23.0Z"
            },
            "medium": {
                "type": "mobile",
                "number": "+436641234567"
            }
        }
    ],
    },

```

```

{
  "preferred": true,
  "type": "TelephoneNumber",
  "validFor": {
    "startDateTime": "2013-04-19T16:42:23.0Z"
  },
  "medium": {
    "type": "business",
    "number": "+436641234567"
  }
}
]
}

```

Field Descriptions :

Characteristic: describes the characteristics of the individual such as individual hobbies, center of interests.

Field	Description
name	Name of the characteristic
value	Value of the characteristic

ContactMedium: indicates the contact medium that could be used to contact the customer.

Field	Description
preferred	If true, indicates that is the preferred contact medium
type	Email address, telephone number, postal address
validFor	The time period that the contact medium is valid for

ExternalReference: to manage touch points to external OTT identifiers for the organization (facebook, google+, ...).

Field	Description
href	External reference
type	Reference type

Medium: describes the contact medium that could be used to contact the customer

Field	Description
city	City
country	Country
emailAddress	Full email address in standard format
type	Type of medium (fax, mobile phone...)
number	Phone number
postcode	Postcode
stateOrProvince	State or province

street1	Describes the street
street2	Complementary street description

Organization: represents a group of people identified by shared interests or purpose. Because of the complex nature of many businesses, both organizations and organization units are represented by the same business entity in this model..

Field	Description
existsDuring	Details the establishment of the organization and its cessation
href	Reference of the organization
id	Unique identifier for the organization
isLegalEntity	To tag if the organization is a legal entity known by national referential
nameType	“Co.”, “Inc.”, “Ltd.”, “Pty Ltd.”, “Plc.”, “GmbH”
status	Status of the organization - Initialized, Validated, Closed
tradingName	The name that the organization (unit) trades under
type	Type of Organization (Company, ...)

OrganizationIdentification: represents our registration of information used as proof of identity by an organization

Field	Description
identificationId	identifier
identificationId	The name that the organization trades under
issuingAuthority	Authority which has issued the identifier (chamber of commerce...)
issuingDate	Date at which the identifier was issued
type	Type of identification information used to identify the company in a country or internationally
validFor	The period for which the identification information is valid

OrganizationChildRelationship: represents the links between organizations: useful to describe an organization structure between headquarters, affiliates,...It indicates the children of the organization.

Field	Description
id	Unique identifier of the child organization
href	Reference of the child organization
relationshipType	Juridical, hierarchical, geographical, functional...
validFor	The time period the relationship is valid

OrganizationParentRelationship: represents the links between organizations: useful to describe an organization structure between headquarters, affiliates,...It indicates the parent of the organization.

Field	Description
id	Unique identifier of the parent organization
href	Reference of the parent organization
relationshipType	Juridical, hierarchical, geographical, functional...
validFor	The time period the relationship is valid

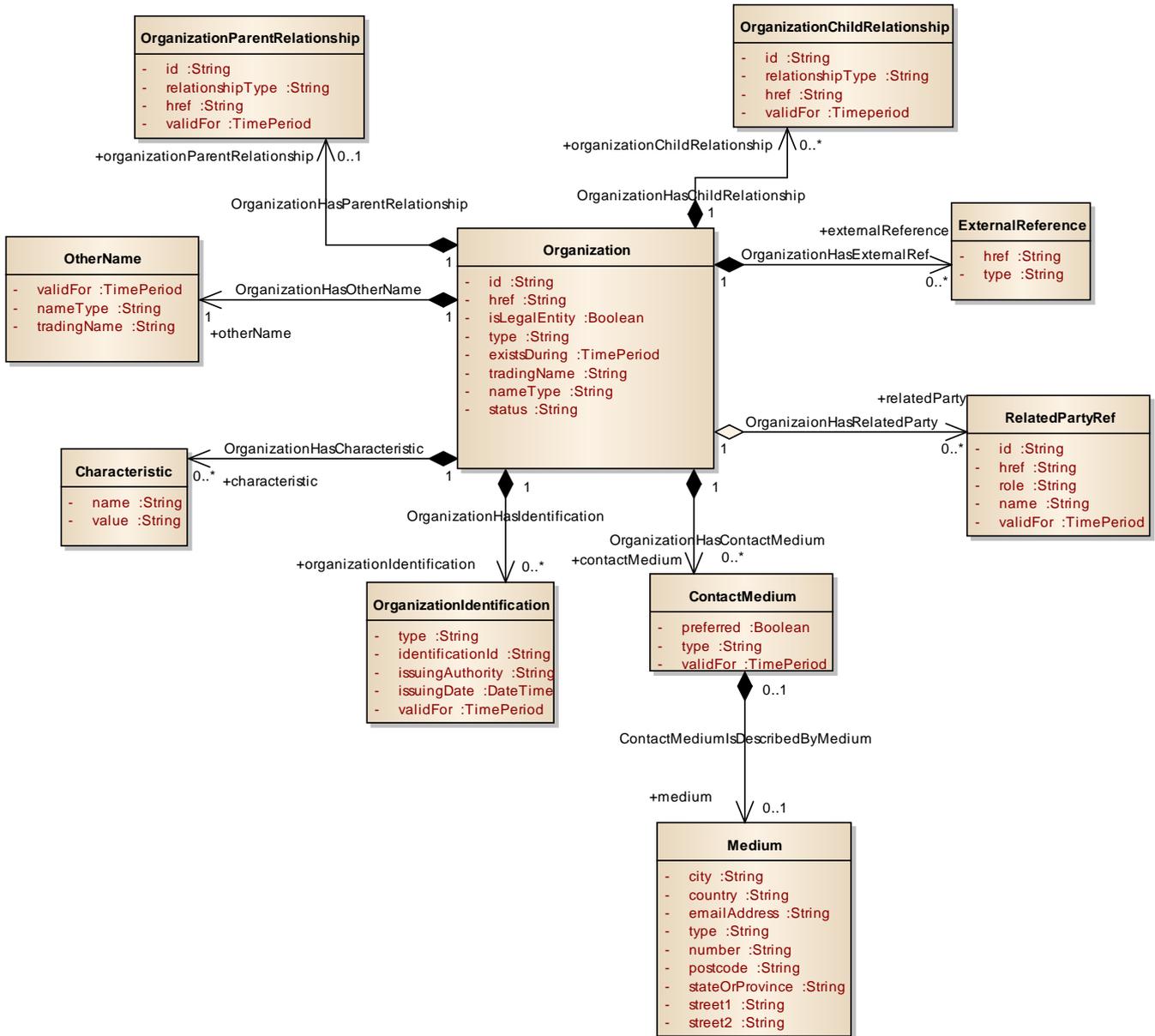
OtherName: To keep track of other names (for example the old name of a woman before marriage or an artist name)

Field	Description
nameType	Co., Inc., Ltd., Pty Ltd. , Plc., Gmbh
tradingName	The name that the organization trades under
validFor	The period for which the other name is valid

RelatedParty: Defines party or partyRole linked to a specific entity.

Field	Description
id	Unique identifier of related party
href	Reference of the relatedParty, could be a party reference or a partyRole reference
role	Role of the related party
name	Name of the related party
validFor	The period for which the related party is valid

UML Model:



EXPORT JOB RESOURCE

An ExportJob resource represents a TASK used to export resources to a File

The ExportJob resource supports the following properties:

Attribute name	Description
query	Used to scope the exported data (identical to GET filter construct using target ID as base) "query": "type=productOffering&version=2.0"
path	URL of the root resource acting as the source for streaming content to the file specified by the ExportJob ../partyManagement/individual
content-type	The format of the exported data .By default "application/json"
status	notstarted, running, succeeded, failed
url	URL of the File containing the data to be exported a file URL, which is of the form file://host/path where host is the fully qualified domain name of the system on which the path is accessible, and path is a hierarchical directory path of the form directory/directory/.../name
completionDate	Date at which the Job was completed.
creationDate	Date at which the Job was created.
errorLog	Reason for Failure

JSON representation of an ExportJob

```
{
  "id": "54",
  "href": "http://api/catalogManagement/exportJob/54",
  "status": "running",
  "path": "partyManagement/",
  "content-type": "application/json",
```

```

"errorLog": "",
"creationDate": "2013-04-19T16:42:23-04:00",
"completionDate": "2013-04-21T16:42:23-04:00",
"url": "ftp://ftp.myParty.com/party/54"
}
    
```

UML Model:



IMPORT JOB RESOURCE

An ImportJob resource represent a TASK used to import resources from a File

The ImportJob resource supports the following properties:

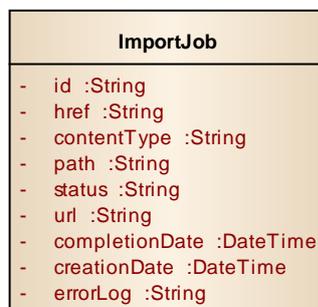
Attribute name	Description
content-type	The format of the imported data. By default "application/json"
path	URL of the root resource where the content of the file specified by the ImportJob must be applied ../partyManagement/individual
status	notstarted, running, succeeded, failed
url	URL of the File containing the data to be imported

	<p>a file URL, which is of the form</p> <p>file://host/path</p> <p>where host is the fully qualified domain name of the system on which the path is accessible, and path is a hierarchical directory path of the form directory/directory/.../name</p>
completionDate	Date at which the Job was completed.
creationDate	Date at which the Job was created.
errorLog	Reason for Failure if status is failed

JSON representation of an ImportJob

```
{
  "id": "54",
  "href": "http://api/partyManagement/importJob/54",
  "status": "completed",
  "path": "partyManagement/",
  "content-type": "application/json",
  "errorLog": "",
  "creationDate": "2013-04-19T16:42:23-04:00",
  "completionDate": "2013-04-21T16:42:23-04:00",
  "url": "ftp://ftp.myParty.com/party/54"
}
```

UML Model:

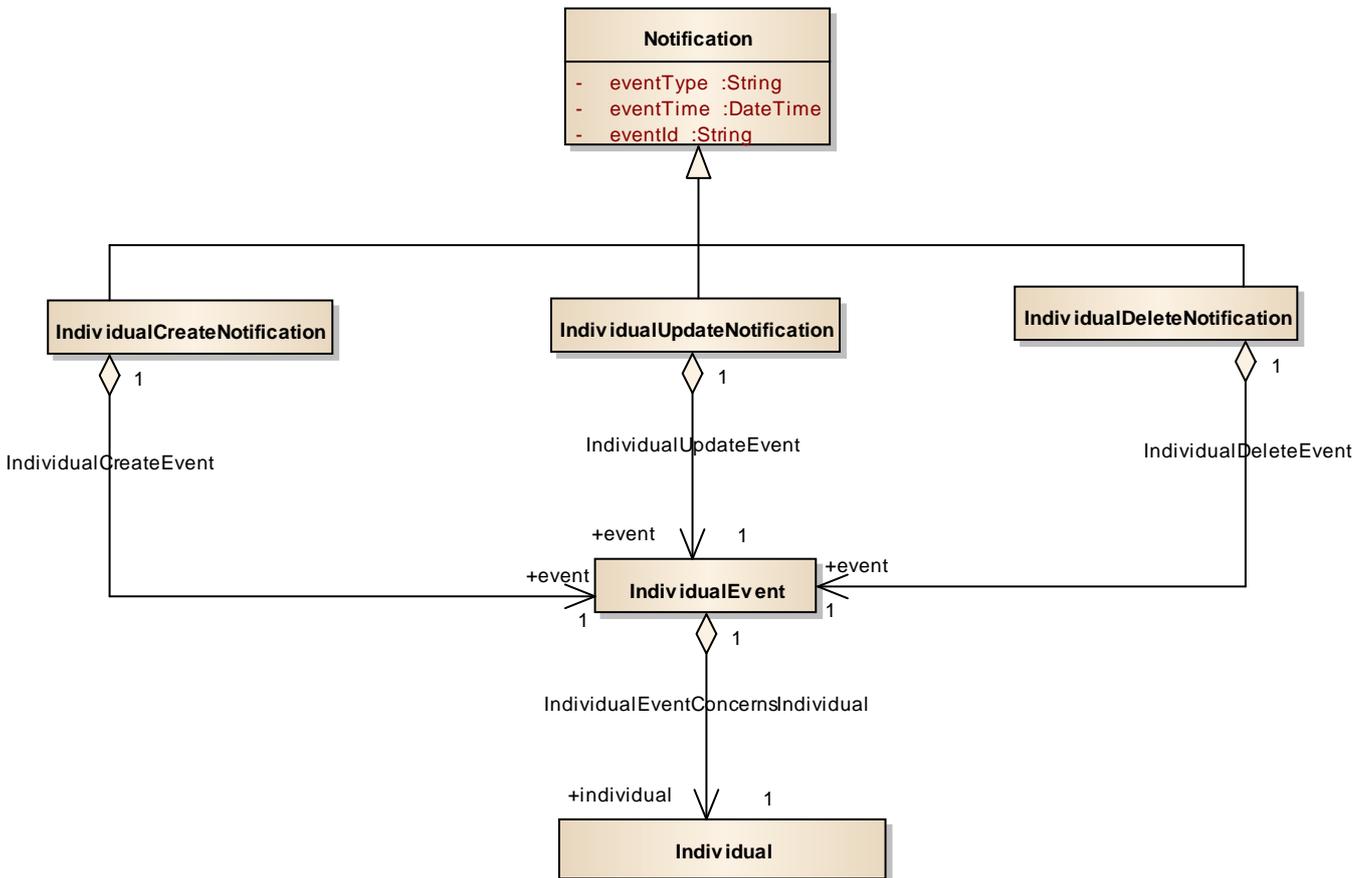


Notification Resource Models

8 notification event types are defined :

1. IndividualCreateNotification
2. IndividualUpdateNotification
3. IndividualDeleteNotification
4. OrganizationCreateNotification
5. OrganizationUpdateNotification
6. OrganizationDeleteNotification
7. ImportJobCompletionNotification
8. ExportJobCompletionNotification

UML Model:



Event: IndividualCreateNotification

{

```
"eventType": "IndividualCreateNotification",
"eventTime": "2014-09-27T05:46:25.0Z",
"eventId": "1154231",
"event": {
  "individual":
  {
    "id": "12",
    Following a whole representation of the Individual with all its attributes
    See Individual Resource.
  }
}
```

Event: IndividualUpdateNotification

```
{
  "eventType": "IndividualUpdateNotification",
  "eventTime": "2014-09-27T05:46:25.0Z",
  "eventId": "119331",
  "event": {
    "individual":
    {
      "id": "12",
      Following a whole representation of the Individual with all its attributes
      See Individual Resource.
    }
  }
}
```

Event: individualDeleteNotification

```
{
  "eventType": "IndividualDeleteNotification",
  "eventTime": "2014-09-27T05:46:25.0Z",
  "eventId": "1189231",
```

```

"event": {
  "individual":
  {
    "id": "12",

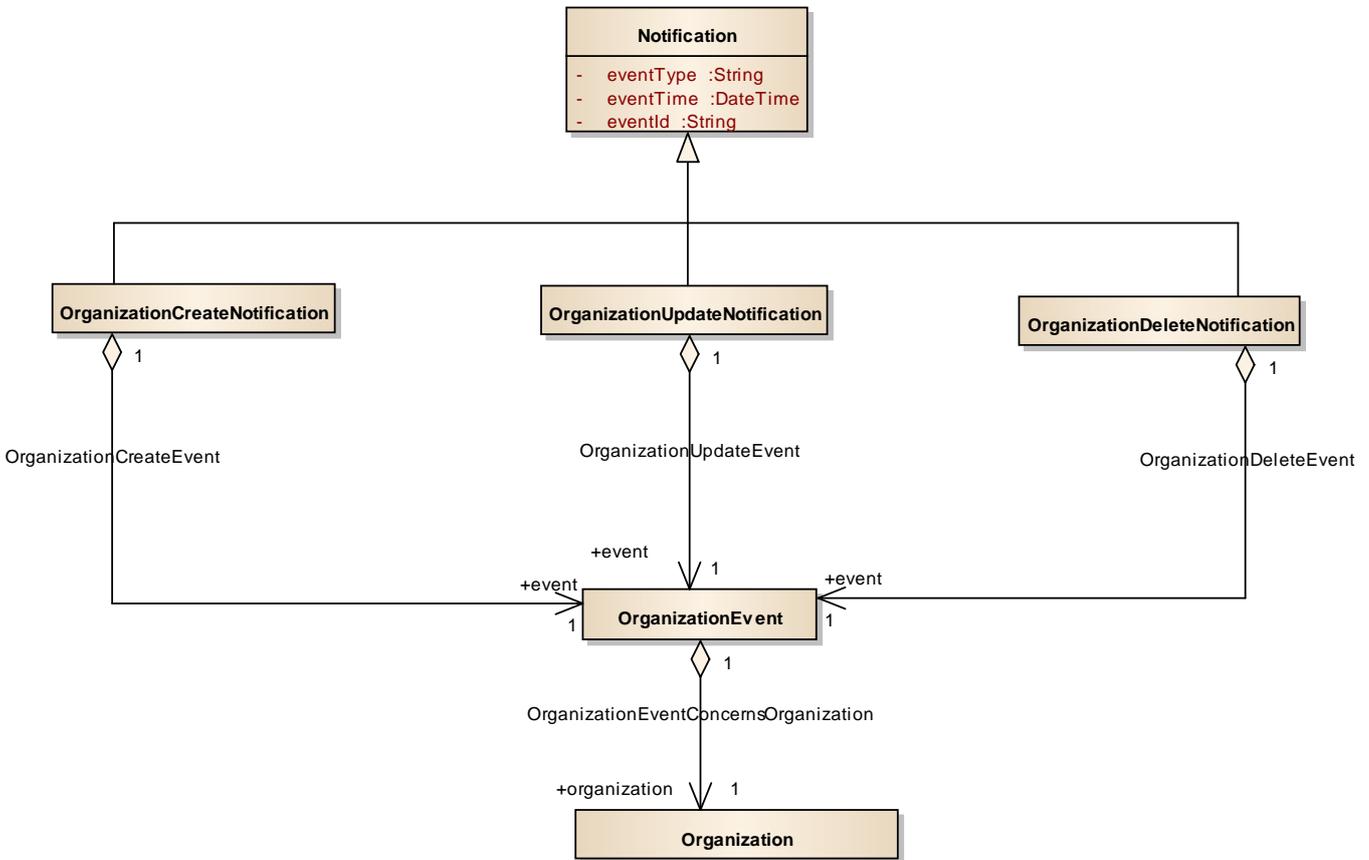
    Following a whole representation of the Individual with all its attributes
    See Individual Resource.

  }
}
    
```

ORGANIZATION Notifications

1. Create
2. Update
3. Delete

UML Model:



Event: OrganizationCreateNotification

```
{
  "eventType": "OrganizationCreateNotification",
  "eventTime": "2014-09-27T05:46:25.0Z",
  "eventId": "1154391",
  "event": {
    "organization":
    {
      "id": "128",
      Following a whole representation of the Organization with all its attributes
      See Organization Resource.
    }
  }
}
```

Event: OrganizationUpdateNotification

```
{
  "eventType": "OrganizationUpdateNotification",
  "eventTime": "2014-09-27T05:46:25.0Z",
  "eventId": "1156731",
  "event": {
    "organization":
    {
      "id": "128",
      Following a whole representation of the Organization with all its attributes
      See Organization Resource.
    }
  }
}
```

Event: OrganizationDeleteNotification

```
{
  "eventType": "OrganizationDeleteNotification",
```

```

"eventTime": "2014-09-27T05:46:25.0Z",
"eventId": "1154278",
"event": {
  "organization":
  {
    "id": "128",

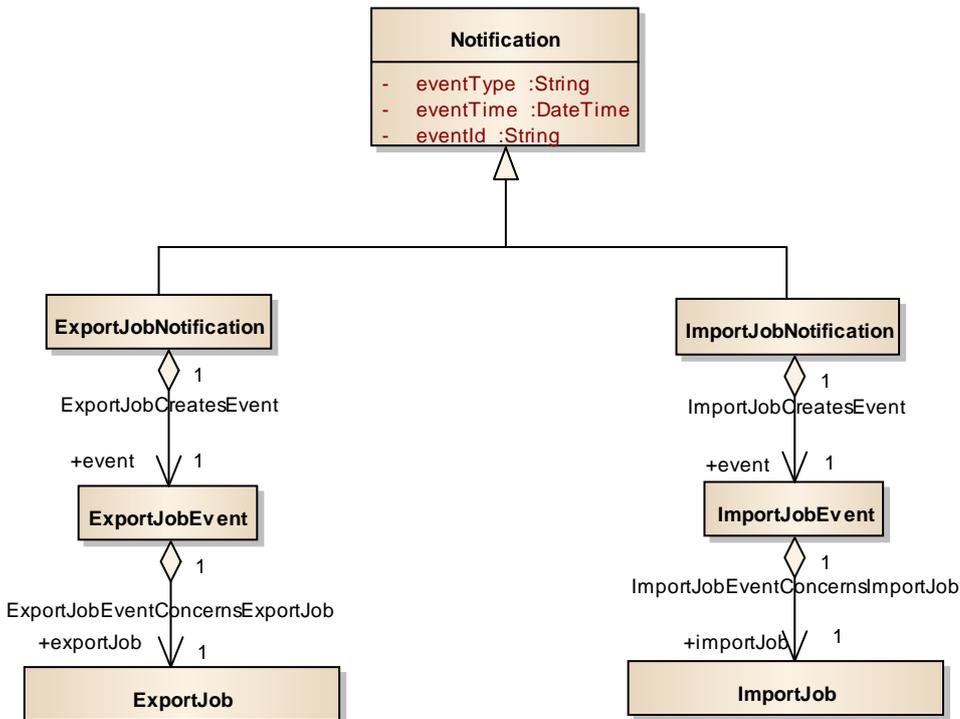
    Following a whole representation of the Organization with all its attributes
    See Organization Resource.

  }
}
}
    
```

Export and Import Job Notifications

1. Export Job Completion Notification
2. Import Job Completion Notification

UML Model:



Event: ExportJobCompletionNotification

```
{
  "eventType": "ExportJobCompletionNotification",
  "eventTime": "2014-09-27T05:46:25.0Z",
  "eventId": "1154278",
  "event": { "exportJob": {
    "id": "54",
    "href": "http://api/partyManagement/exportJob/54",
    "status": "succeeded",
    "path": "partyManagement/",
    "content-type": "application/json",
    "errorLog": "",
    "creationDate": "2013-04-19T16:42:23-04:00",
    "completionDate": "2013-04-21T16:42:23-04:00",
    "url": "ftp://ftp.myParty.com/partyManagement/54.json"
  }}
}
```

Event: ImportJobCompletionNotification

```
{
  "eventType": "ImportJobCompletionNotification",
  "eventTime": "2014-09-27T05:46:25.0Z",
  "eventId": "1154278",
  "event": { "importJob": {
    "id": "54",
    "href": "http://api/partyManagement/importJob/54",
    "status": "succeeded",
    "path": "partyManagement/",
    "content-type": "application/json",
    "errorLog": "",
    "creationDate": "2013-04-19T16:42:23-04:00",
    "completionDate": "2013-04-21T16:42:23-04:00",
    "url": "ftp://ftp.myParty.com/partyManagement/54.json"
  }}
}
```

```
}}  
}
```

API OPERATION TEMPLATES

For every single of operation on the entities use the following templates and provide sample REST requests and responses.

Remember that the following Uniform Contract rules must be used :

Operation on Entities	Uniform API Operation	Description
Query Entities	GET Resource	GET must be used to retrieve a representation of a resource.
Create Entity	POST Resource	POST must be used to create a new resource
Partial Update of an Entity	PATCH Resource	PATCH must be used to partially update a resource
Complete Update of an Entity	PUT Resource	PUT must be used to completely update a resource identified by its resource URI
Remove an Entity	DELETE Resource	DELETE must be used to remove a resource
Execute an Action on an Entity	POST on TASK Resource	POST must be used to execute Task Resources
Other Request Methods	POST on TASK Resource	GET and POST must not be used to tunnel other request methods.

Filtering and attribute selection rules are described in the TMF REST Design Guidelines.

Notifications are also described in a subsequent section.

GET /PARTYMANAGEMENT/INDIVIDUAL/{ID}

Note that collections can be retrieved via GET /API/INDIVIDUAL with no {ID}

Description :

- Operation to retrieve individuals (physical persons) in a party repository
- Filtering is enabled for all attributes
- Attribute selection is enabled for all attributes
- The resource is either a managed entity (query by id) or a collection (query with criteria)
- The resource identifier is a http uri

Behavior :

- Standard behavior and response codes for GET operations

Example : Retrieve individual with id 11 who is John Doe - with all his attributes.

REQUEST
GET /partyManagement/individual/i42 Accept: application/json
RESPONSE
200 Content-Type: application/json <pre>{ "id": "i42", "href": "http://serverlocation:port/partyManagement/individual/i42", "gender": "male", "placeOfBirth": "http://goo.gl/maps/l8F9L", "countryOfBirth": "Austria", "nationality": "Canadian", "maritalStatus": "never married", "disability": [{</pre>

```
        "disability": "blind"
    }
],
"birthDate": "1961-03-05T00:00:00.0Z",
"characteristic": [
    {
        "name": "hobby",
        "value": "hockey"
    },
    {
        "name": "",
        "value": ""
    }
],
"title": "",
"givenName": "John",
"familyName": "Smith",
"middleName": "",
"fullName": "",
"formattedName": "",
"otherName": [
    {
        "title": "",
        "givenName": "",
        "familyName": "",
        "middleName": "",
        "fullName": "",
        "formattedName": "",
        "validFor": {
            "startDateTime": "2013-04-19T16:42:23.0Z",
            "endDateTime": "2013-06-19T00:00:00.0Z"
        }
    }
],
"location": "http://goo.gl/maps/l8F9L",
"status": "Initialized",
```

```
"individualIdentification": [  
  {  
    "type": "Passport",  
    "identificationId": "73736625252",  
    "issuingAuthority": "",  
    "issuingDate": "2013-06-19T00:00:00.0Z"  
  },  
  {  
    "type": "SocialSecurityNumber",  
    "identificationId": "33636363",  
    "issuingAuthority": "",  
    "issuingDate": "2013-06-19T00:00:00.0Z"  
  }  
],  
"externalReference": [  
  {  
    "href": "http://facebook.com/17263635",  
    "type": "FacebookID"  
  },  
  {  
    "href": "http://google.com/17263635",  
    "type": "GoogleID"  
  }  
],  
"relatedParty": [  
  {  
    "id": "1",  
    "href": "http://serverlocation:port/partyManagement/organization/1",  
    "role": "Employee",  
    "name": "Richard Cole",  
    "validFor": {  
      "startDateTime": "2013-04-19T16:42:23.0Z",  
      "endDateTime": "2013-06-19T00:00:00.0Z"  
    }  
  }  
],
```

```
"contactMedium": [  
  {  
    "type": "Email",  
    "validFor": {  
      "startDateTime": "2013-04-19T16:42:23.0Z"  
    },  
    "medium": {  
      "emailAddress": "abc@tmforum.com"  
    }  
  },  
  {  
    "type": "PostalAddress",  
    "validFor": {  
      "startDateTime": "2013-04-19T16:42:23.0Z"  
    },  
    "medium": {  
      "city": "Wien",  
      "country": "Austria",  
      "postcode": "1020",  
      "stateOrProvince": "Quebec",  
      "street1": "Lassallestrasse7",  
      "street2": ""  
    }  
  },  
  {  
    "type": "TelephoneNumber",  
    "validFor": {  
      "startDateTime": "2013-04-19T16:42:23.0Z"  
    },  
    "medium": {  
      "type": "mobile",  
      "number": "+436641234567"  
    }  
  },  
  {  
    "preferred": true,  
  }  
]
```

```

    "type": "TelephoneNumber",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
      "type": "business",
      "number": "+436641234567"
    }
  }
]
}

```

Example : Retrieve John Doe individual entry and we only want to get his full name.

REQUEST
GET /partyManagement/individual/11?fields=fullName Accept: application/json
RESPONSE
200 Content-Type: application/json <pre> { "fullName": "Dr. John Doe" } </pre>

GET /PARTYMANAGEMENT/ORGANIZATION/{ID}

Note that collections can be retrieved via GET /API/<RESOURCE> with no {ID}

Description :

- Operation to retrieve organizations (corporations) in a party repository
- Filtering is enabled for all attributes
- Attribute selection is enabled for all attributes
- The resource is either a managed entity (query by id) or a collection (query with criteria)
- The resource identifier is a http uri

Behavior :

- Standard behavior and response codes for GET operations

Example : Get all names of children organizations of a given one (131)

REQUEST
GET /partyManagement/organization?fields=tradingName&organizationParentRelationship.id=131 Accept: application/json
RESPONSE
200 Content-Type: application/json [{ "id": "1311", "tradingName": "IT" }, { "id": "1312", "tradingName": "Network" }]

Example : Get specific organization using its id returning all attributes

REQUEST
GET /partyManagement/organization/128 Accept: application/json
RESPONSE
200 Content-Type: application/json { "id": "128", "href": "http://serverlocation:port/partyManagement/organization/128", "isLegalEntity": true, "type": "Company", "existsDuring": {

```
    "startDate": "2013-04-19T16:42:23.0Z"
  },
  "tradingName": "Telekom",
  "nameType": "Co.",
  "status": "Initialized",
  "otherName": {
    "nameType": "Co.",
    "tradingName": "Orange",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  },
  },
  "characteristic": {
    "name": "industry",
    "value": "telecom"
  },
  },
  "organizationIdentification": {
    "type": "CompanyRegistrationNumber",
    "identificationId": "374748328",
    "issuingAuthority": "",
    "issuingDate": "2013-06-19T00:00:00.0Z",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  },
  },
  "externalReference": [
    {
      "href": "http://facebook.com/17263635",
      "type": "FacebookID"
    },
    {
      "href": "http://google.com/17263635",
      "type": "GoogleID"
    }
  ]
}
```

```
],
  "relatedParty": {
    "id": "12",
    "href": "http://serverlocation:port/partyManagement/organization/12",
    "role": "Vendor",
    "name": "Richard Cole",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  },
  "organizationParentRelationship": {
    "relationshipType": "Juridical",
    "id": "13",
    "href": "http://serverlocation:port/partyManagement/organization/13",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  },
  "organizationChildRelationship": {
    "relationshipType": "Juridical",
    "id": "16",
    "href": "http://serverlocation:port/partyManagement/organization/16",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  },
  "contactMedium": [
    {
      "type": "Email",
      "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
      },
      "medium": {
```

```
        "emailAddress": "abc@tmforum.com"
    }
},
{
    "type": "PostalAddress",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
        "city": "Wien",
        "country": "Austria",
        "postcode": "1020",
        "stateOrProvince": "Quebec",
        "street1": "Lassallestrasse7",
        "street2": ""
    }
},
{
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
        "type": "mobile",
        "number": "+436641234567"
    }
},
{
    "preferred": true,
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
        "type": "business",
        "number": "+436641234567"
    }
}
```

```

    }
  }
]
}

```

PUT PARTYMANAGEMENT/INDIVIDUAL/{ID}

Description :

- Allows to overwrite an existing individual entry in the party repository
- The resource is a managed entity

Behavior :

- Standard behavior and response codes for PUT operations

Example : Update John Smith (identified by 'i42') : full update

REQUEST

PUT partyManagement/individual/i42
Content-type: application/json

```

{
  "id": "i42",
  "href": "http://serverlocation:port/partyManagement/individual/i42",
  "gender": "male",
  "placeOfBirth": "http://goo.gl/maps/l8F9L",
  "countryOfBirth": "Austria",
  "nationality": "Canadian",
  "maritalStatus": "never married",
  "disability": [
    {
      "disability": "blind"
    }
  ],
  "birthDate": "1961-03-05T00:00:00.0Z",
  "characteristic": [
    {
      "name": "hobby",

```

```
        "value": "hockey"
    },
    {
        "name": "",
        "value": ""
    }
],
"title": "",
"givenName": "John",
"familyName": "Smith",
"middleName": "",
"fullName": "",
"formattedName": "",
"otherName": [
    {
        "title": "",
        "givenName": "",
        "familyName": "",
        "middleName": "",
        "fullName": "",
        "formattedName": "",
        "validFor": {
            "startDateTime": "2013-04-19T16:42:23.0Z",
            "endDateTime": "2013-06-19T00:00:00.0Z"
        }
    }
],
"location": "http://goo.gl/maps/l8F9L",
"status": "Initialized",
"individualIdentification": [
    {
        "type": "Passport",
        "identificationId": "73736625252",
        "issuingAuthority": "",
        "issuingDate": "2013-06-19T00:00:00.0Z"
    }
],
```

```
{
  "type": "SocialSecurityNumber",
  "identificationId": "33636363",
  "issuingAuthority": "",
  "issuingDate": "2013-06-19T00:00:00.0Z"
},
"externalReference": [
  {
    "href": "http://facebook.com/17263635",
    "type": "FacebookID"
  },
  {
    "href": "http://google.com/17263635",
    "type": "GoogleID"
  }
],
"relatedParty": [
  {
    "id": "1",
    "href": "http://serverlocation:port/partyManagement/organization/1",
    "role": "Employee",
    "name": "Richard Cole",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  }
],
"contactMedium": [
  {
    "type": "Email",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
```

```
        "emailAddress": "abc@tmforum.com"
    }
},
{
    "type": "PostalAddress",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
        "city": "Wien",
        "country": "Austria",
        "postcode": "1020",
        "stateOrProvince": "Quebec",
        "street1": "Lassallestrasse7",
        "street2": ""
    }
},
{
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
        "type": "mobile",
        "number": "+436641234567"
    }
},
{
    "preferred": true,
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
        "type": "business",
        "number": "+436641234567"
    }
}
```

```
    }
  }
]
```

RESPONSE

201

Content-Type: application/json

```
{
  "id": "i42",
  "href": "http://serverlocation:port/partyManagement/individual/i42",
  "gender": "male",
  "placeOfBirth": "http://goo.gl/maps/l8F9L",
  "countryOfBirth": "Austria",
  "nationality": "Canadian",
  "maritalStatus": "never married",
  "disability": [
    {
      "disability": "blind"
    }
  ],
  "birthDate": "1961-03-05T00:00:00.0Z",
  "characteristic": [
    {
      "name": "hobby",
      "value": "hockey"
    },
    {
      "name": "",
      "value": ""
    }
  ],
  "title": "",
  "givenName": "John",
  "familyName": "Smith",
  "middleName": "",
```

```
"fullName": "",
"formattedName": "",
"otherName": [
  {
    "title": "",
    "givenName": "",
    "familyName": "",
    "middleName": "",
    "fullName": "",
    "formattedName": "",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  }
],
"location": "http://goo.gl/maps/l8F9L",
"status": "Initialized",
"individualIdentification": [
  {
    "type": "Passport",
    "identificationId": "73736625252",
    "issuingAuthority": "",
    "issuingDate": "2013-06-19T00:00:00.0Z"
  },
  {
    "type": "SocialSecurityNumber",
    "identificationId": "33636363",
    "issuingAuthority": "",
    "issuingDate": "2013-06-19T00:00:00.0Z"
  }
],
"externalReference": [
  {
    "href": "http://facebook.com/17263635",
    "type": "FacebookID"
  }
]
```

```
    },
    {
      "href": "http://google.com/17263635",
      "type": "GoogleID"
    }
  ],
  "relatedParty": [
    {
      "id": "1",
      "href": "http://serverlocation:port/partyManagement/organization/1",
      "role": "Employee",
      "name": "Richard Cole",
      "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z",
        "endDateTime": "2013-06-19T00:00:00.0Z"
      }
    }
  ],
  "contactMedium": [
    {
      "type": "Email",
      "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
      },
      "medium": {
        "emailAddress": "abc@tmforum.com"
      }
    },
    {
      "type": "PostalAddress",
      "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
      },
      "medium": {
        "city": "Wien",
        "country": "Austria",

```

```
        "postcode": "1020",
        "stateOrProvince": "Quebec",
        "street1": "Lassallestrasse7",
        "street2": ""
    }
},
{
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
        "type": "mobile",
        "number": "+436641234567"
    }
},
{
    "preferred": true,
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
    },
    "medium": {
        "type": "business",
        "number": "+436641234567"
    }
}
]
```

PUT PARTYMANAGEMENT/ORGANIZATION/{ID}

Description :

- Allows to overwrite an existing organization entry in the party repository
- The resource is a managed entity

Behavior :

Standard behavior and response codes for PUT operations

REQUEST

PUT /partyManagement/organization/128

Content-type: application/json

```
{
  "id": "128",
  "href": "http://serverlocation:port/partyManagement/organization/128",
  "isLegalEntity": true,
  "type": "Company",
  "existsDuring": {
    "startDate": "2013-04-19T16:42:23.0Z"
  },
  "tradingName": "Telekom",
  "nameType": "Co.",
  "status": "Initialized",
  "otherName": {
    "nameType": "Co.",
    "tradingName": "Orange",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  },
  "characteristic": {
    "name": "industry",
    "value": "telecom"
  },
  "organizationIdentification": {
    "type": "CompanyRegistrationNumber",
    "identificationId": "374748328",
    "issuingAuthority": "",
    "issuingDate": "2013-06-19T00:00:00.0Z",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23.0Z",
      "endDateTime": "2013-06-19T00:00:00.0Z"
    }
  }
}
```

```
},
"externalReference": [
  {
    "href": "http://facebook.com/17263635",
    "type": "FacebookID"
  },
  {
    "href": "http://google.com/17263635",
    "type": "GoogleID"
  }
],
"relatedParty": {
  "id": "1",
  "href": "http://serverlocation:port/partyManagement/organization/12",
  "role": "Vendor",
  "name": "Richard Cole",
  "validFor": {
    "startDateTime": "2013-04-19T16:42:23.0Z",
    "endDateTime": "2013-06-19T00:00:00.0Z"
  }
},
"organizationParentRelationship": {
  "relationshipType": "Juridical",
  "id": "13",
  "href": "http://serverlocation:port/partyManagement/organization/13",
  "validFor": {
    "startDateTime": "2013-04-19T16:42:23.0Z",
    "endDateTime": "2013-06-19T00:00:00.0Z"
  }
},
"organizationChildRelationship": {
  "relationshipType": "Juridical",
  "id": "16",
  "href": "http://serverlocation:port/partyManagement/organization/16",
  "validFor": {
    "startDateTime": "2013-04-19T16:42:23.0Z",
```

```
        "endDateTime": "2013-06-19T00:00:00.0Z"
    }
},
"contactMedium": [
    {
        "type": "Email",
        "validFor": {
            "startDateTime": "2013-04-19T16:42:23.0Z"
        },
        "medium": {
            "emailAddress": "abc@tmforum.com"
        }
    },
    {
        "type": "PostalAddress",
        "validFor": {
            "startDateTime": "2013-04-19T16:42:23.0Z"
        },
        "medium": {
            "city": "Wien",
            "country": "Austria",
            "postcode": "1020",
            "stateOrProvince": "Quebec",
            "street1": "Lassallestrasse7",
            "street2": ""
        }
    },
    {
        "type": "TelephoneNumber",
        "validFor": {
            "startDateTime": "2013-04-19T16:42:23.0Z"
        },
        "medium": {
            "type": "mobile",
            "number": "+436641234567"
        }
    }
]
```

```

    },
    {
      "preferred": true,
      "type": "TelephoneNumber",
      "validFor": {
        "startDateTime": "2013-04-19T16:42:23.0Z"
      },
      "medium": {
        "type": "business",
        "number": "+436641234567"
      }
    }
  ]
}

```

RESPONSE

201
Content-Type: application/json

```
{ JSON Resource Representation with all attributes
}
```

PATCH PARTYMANAGEMENT/INDIVIDUAL/{ID}

This Uniform Contract operation is used to partially update the representation of an individual.

Description:

- Patch operation can be used partially update one or more individual
- The resource represents a managed entity or a collection
- The identifier is a string that can consist of numbers, not necessarily alphanumeric

Behavior:

- Return Status Codes:
 - Returns HTTP/1.1 status code 201 if individual was updated successfully
 - 400 – Bad Request Error
 - 404 - If no record was found for the supplied criteria
 - 500 - The server encountered an unexpected condition which prevented it from fulfilling the request

Patchable attributes for an individual:

Attribute name	Patchable	Rule
id	N	
gender	Y	
placeOfBirth	N	
countryOfBirth	Y	
nationality	Y	
maritalStatus	Y	
disability	Y	
birthDate	N	
deathDate	Y	
characteristic	Y	
title	Y	
givenName	Y	
familyName	Y	
middleName	Y	
fullName	Y	
formattedName	Y	
otherName	Y	
location	Y	

individualIdentification	Y	
externalReference	Y	
relatedParty	Y	
contactMedium	Y	

Further document any rules that must be implemented when patching attributes.

Rule name	Rule/Pre Condition/Side Effects/Post Conditions
disability	disability is mandatory
characteristic	name and value are mandatory
organizationIdentification	type and identification id must be set
externalReference	referenceType and reference must be set
relatedParty	role and party are mandatory startDateTime is not mandatory but has a default value -> it is set to sysdate by default
xxxRelationship	relationshipType and href are mandatory

Example : Update John Doe (identified with '11') : he is updating his marital status.

REQUEST
<pre> PATCH partyManagement/individual/11 Content-type: application/json { "maritalStatus": "married" } </pre>
RESPONSE

<p>201 Content-Type: application/json</p> <pre>{ JSON resource representation with all attributes including the changed one See individual resource model for details }</pre>

Example : Update John Doe (identified with '11') : he is joining an organization that is already stored in the party referential.

REQUEST
<p>PATCH partyManagement/individual/11 Content-type: application/json-patch+json</p> <pre>{ "op": "add", "path": "/relatedParty", "value": { "id": "1", "href": "http://serverlocation:port/partyManagement/organization/1", "role": "Employee", "validFor": { "startDateTime": "2013-04-19T16:42:23-04:00", "endDateTime": "" } } }</pre>
RESPONSE
<p>201 Content-Type: application/json</p> <pre>{ JSON resource representation with all attributes including the changed one See individual resource model for details }</pre>

PATCH PARTYMANAGEMENT/ORGANIZATION/{ID}

This Uniform Contract operation is used to partially update the representation of an organization

Description:

- Patch operation can be used partially update one or more organizations
- The resource represents a managed entity or a collection
- The identifier is a string that can consist of numbers, not necessarily alphanumeric

Behavior:

- Return Status Codes:
 - Returns HTTP/1.1 status code 201 if organization was updated successfully
 - 400 – Bad Request Error
 - 404 - If no record was found for the supplied criteria
 - 500 - The server encountered an unexpected condition which prevented it from fulfilling the request

Patchable attributes for an organization:

Attribute name	Patchable	Rule
id	N	
isLegalEntity	Y	
type	Y	
existsDuring	Y	
tradingName	Y	
nameType	Y	
otherName	Y	
characteristic	Y	
organizationIdentification	Y	
externalReference	Y	
relatedParty	Y	

organizationParentRelationship	Y	
organizationChildRelationship	Y	
contactMedium	Y	

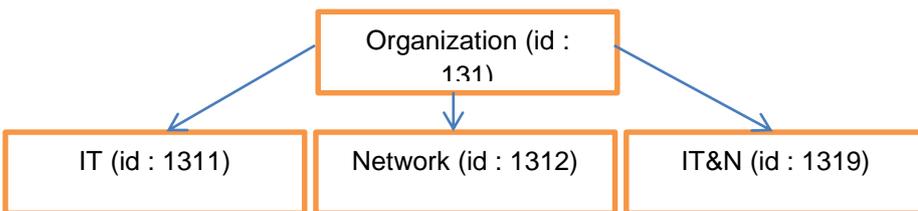
Further document any rules that must be implemented when patching attributes.

Rule name	Rule/Pre Condition/Side Effects/Post Conditions
characteristic Patching Mandatory Values	Name and value
organizationIdentification Patching Mandatory Values	Type and identificationId
externalReference Patching Mandatory Values	referenceType and reference
relatedParty Patching Mandatory Values	Role and party
relatedParty Patching Default Values	startDateTime is not mandatory is set to sysdate by default

Example : Example of an organization structure which is changing : IT and Network were previously separated and a new entity was created to merge these two entities (IT&N)

We describe 2 PATCH operations here under :

- PATCH IT entity to tag it as former
- PATCH main organization to change the organization structure (children links)



We assume that IT&N is already created, and Network entity has been patched.

PATCH of the IT entity :

REQUEST
PATCH partyManagement/organization/1311 Content-type: application/json <pre>{ "id": "1311", "href": " http://serverlocation:port/partyManagement/organization/1311", "existsDuring": { "endDate": "2013-04-19T16:42:23-04:00" } }</pre>
RESPONSE
201 Content-Type: application/json <pre>{ JSON resource representation with all attributes including the changed one See individual resource model for details }</pre>

PATCH of the Organization top entity : set the relationships endDate for IT & Network relationships, and creation of a new relationship with IT&N

REQUEST
PATCH partyManagement/organization/131 Content-type: application/json-patch+json <pre>[{ "op": "replace", "path": "/organizationChildRelationship/1", "value": { "relationshipType": "Juridical", "id": "1311", "href": "http://serverlocation:port/partyManagement/organization/1311", "validFor": {</pre>

```

        "startDateTime": "2001-04-19T16:42:23-04:00",
        "endDateTime": "2013-04-19T16:42:23-04:00"
    }
}
}, {
    "op": "replace",
    "path": "/organizationChildRelationship/2",
    "value": {
        "relationshipType": "Juridical",
        "id": "1311",
        "href": "http://serverlocation:
port/partyManagement/organization/1312",
        "validFor": {
            "startDateTime": "2001-04-19T16: 42: 23-04: 00",
            "endDateTime": "2013-04-19T16:42:23-04:00"
        }
    }
}, {
    "op": "add",
    "path": "/organizationChildRelationship",
    "value": {
        "relationshipType": "Juridical",
        "id": "1319",
        "href": "http://serverlocation:
port/partyManagement/organization/1319",
        "validFor": {
            "startDateTime": "2013-04-19T16:42:23-04:00",
            "endDateTime": ""
        }
    }
}
}
]

```

RESPONSE

201
Content-Type: application/json

```
{
```

JSON resource representation with all attributes including the changed one
See individual resource model for details

}

POST PARTYMANAGEMENT/INDIVIDUAL

This operation is used to create an individual.

- The identifier is a string that can consist of numbers, not necessarily alphanumeric
- The mandatory element(s) is/are
 - givenName
 - familyName

When using following elements there are some mandatory attributes within each element:

- Within “disability”
 - the disability
- Within “characteristic”
 - name & value
- Within “organizationIdentification”
 - type
 - identificationId
- Within “externalReference”
 - referenceType
 - reference
- Within “relatedParty”
 - Role
 - Party
 - startDateTime -> not mandatory is set to sysdate by default
- Within “xxxRelationship”
 - relationshipType
 - ref
 - startDateTime -> not mandatory is set to sysdate by default
- The id is generated automatically

Behavior:

- Return Status Codes:
 - 201 – Individual create successfully
 - 400 – Bad Request Error
 - 500 - The server encountered an unexpected condition which prevented it from fulfilling the request

Attribute name	Mandatory	Default	Rule
id	N	Automatically generated	If not given, the id is generated by the system. It is also possible to add an ID in the POST request, which is then used
gender	N		
placeOfBirth	N		
countryOfBirth	N		
nationality	N		
maritalStatus	N		
disability	N		
birthDate	N		
deathDate	N		
characteristic	N		
title	N		
givenName	Y		
familyName	Y		
middleName	N		
fullName	N		

formattedName	N		
otherName	N		
location	N		
individualIdentification	N		
externalReference	N		
relatedParty	N		
contactMedium	N		

Further specify any rules on the creation of the entity

Rule name	Rule/Pre Condition/Side Effects/Post Conditions
disability	disability is mandatory
characteristic	name and value are mandatory
organizationIdentification	type and identification id must be set
externalReference	referenceType and reference must be set
relatedParty	role and party are mandatory startDateTime is not mandatory but has a default value -> it is set to sysdate by default
xxxRelationship	relationshipType and ref are mandatory

Example : creation of an individual named John Doe

REQUEST
POST partyManagement/individual Content-type: application/json

```
{  "gender": "male",
  "placeOfBirth": "http://goo.gl/maps/l8F9L",
  "countryOfBirth": "Austria",
  "nationality": "Canadian",
  "maritalStatus": "never married",
  "disability": [
    {
      "disability": "blind"
    }
  ],
  "birthDate": "2014-03-05",
  "characteristic": [
    {
      "name": "hobby",
      "value": "hockey"
    }
  ],
  "title": "Dr",
  "givenName": "John",
  "familyName": "Doe",
  "location": "http://goo.gl/maps/l8F9L",
  "individualIdentification": [
    {
      "type": "Passport",
      "identificationId": "73736625252",
      "issuingAuthority": "",
      "issuingDate": "2013-06-19T00:00:00-04:00"
    }
  ],
  "externalReference": [
    {
      "href": "http://facebook.com/17263635",
      "type": "FacebookID"
    }
  ]
}
```

```
],
  "contactMedium": [
    {
      "type": "Email",
      "validFor": {
        "startDateTime": "2013-04-19T16:42:23-04:00",
        "endDateTime": ""
      },
      "medium": {
        "emailAddress": "abc@tmforum.com"
      }
    }, {
      "type": "PostalAddress",
      "validFor": {
        "startDateTime": "2013-04-19T16:42:23-04:00",
        "endDateTime": ""
      },
      "medium": {
        "street1": "Lassallestrasse7",
        "street2": "",
        "postcode": "1020",
        "stateOrProvince": "Quebec",
        "city": "Wien",
        "country": "Austria"
      }
    }, {
      "type": "TelephoneNumber",
      "validFor": {
        "startDateTime": "2013-04-19T16:42:23-04:00",
        "endDateTime": ""
      },
      "medium": {
        "type": "mobile",
        "number": "+436641234567"
      }
    }, {
```

```
        "preferred": true,
        "type": "TelephoneNumber",
        "validFor": {
            "startDateTime": "2013-04-19T16:42:23-04:00",
            "endDateTime": ""
        },
        "medium": {
            "type": "business",
            "number": "+436641234567"
        }
    }
}
]
```

RESPONSE

201
Content-Type: application/json

```
{
  "id": "11",
  "href": "http://serverlocation:port/partyManagement/individual/11",
  "gender": "male",
  "placeOfBirth": "http://goo.gl/maps/l8F9L",
  "countryOfBirth": "Austria",
  "nationality": "Canadian",
  "maritalStatus": "never married",
  "disability": [
    {
      "disability": "blind"
    }
  ],
  "birthDate": "2014-03-05",
  "characteristic": [
    {
      "name": "hobby",
      "value": "hockey"
    }
  ],
}
```

```
"title": "Dr",
"givenName": "John",
"familyName": "Doe",
"location": "http://goo.gl/maps/l8F9L",
"individualIdentification": [
  {
    "type": "Passport",
    "identificationId": "73736625252",
    "issuingAuthority": "",
    "issuingDate": "2013-06-19T00:00:00-04:00"
  }
],
"externalReference": [
  {
    "href": "http://facebook.com/17263635",
    "type": "FacebookID"
  }
],
"contactMedium": [
  {
    "type": "Email",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23-04:00",
      "endDateTime": ""
    },
    "medium": {
      "emailAddress": "abc@tmforum.com"
    }
  }, {
    "type": "PostalAddress",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23-04:00",
      "endDateTime": ""
    },
    "medium": {
```

```
        "street1": "Lassallestrasse7",
        "street2": "",
        "postcode": "1020",
        "stateOrProvince": "Quebec",
        "city": "Wien",
        "country": "Austria"
    }
}, {
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23-04:00",
        "endDateTime": ""
    },
    "medium": {
        "type": "mobile",
        "number": "+436641234567"
    }
}, {
    "preferred": true,
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23-04:00",
        "endDateTime": ""
    },
    "medium": {
        "type": "business",
        "number": "+436641234567"
    }
}
]
}
```

POST PARTYMANAGEMENT/ORGANIZATION

This operation is used to create an organization.

- The identifier is a string that can consist of numbers, not necessarily alphanumeric
- The mandatory element is:
 - tradingName

When using following elements there are some mandatory attributes within each element:

- Within “characteristic”
 - name & value
- Within “organizationIdentification”
 - type
 - identificationId
- Within “externalReference”
 - referenceType
 - reference
- Within “relatedParty”
 - Role
 - Party
 - startDateTime -> not mandatory is set to sysdate by default
- Within “xxxRelationship”
 - relationshipType
 - ref
 - startDateTime -> not mandatory is set to sysdate by default
- The id is generated automatically

Behavior:

- Return Status Codes:
 - 201 – organization created successfully
 - 400 – Bad Request Error
 - 500 - The server encountered an unexpected condition which prevented it from fulfilling the request

Specify the attributes required when an entity is created (and their default values if not):

Attribute name	Mandatory	Default	Rule
id	N	Automatically generated	If not given, the id is generated by the system. It is also possible to add an ID in the POST request, which is then

			used
isLegalEntity	N		
type	N		
existsDuring	N		
tradingName	Y		
nameType	N		
otherName	N		
characteristic	N		
organizationIdentification	N		
externalReference	N		
relatedParty	N		
organizationParentRelationship	N		
organizationChildRelationship	N		
contactMedium	N		

Further specify any rules on the creation of the entity

Rule name	Rule/Pre Condition/Side Effects/Post Conditions
characteristic Patching Mandatory Values	Name and value
organizationIdentification Patching Mandatory Values	Type and identificationId

externalReference Patching Mandatory Values	referenceType and reference
relatedParty Patching Mandatory Values	Role and party
relatedParty Patching Default Values	startDateTime is not mandatory is set to sysdate by default

Example : Creation of a new organization, which is an affiliate of the '13' one already created in the party referential.

REQUEST
POST partyManagement/organization Content-type: application/json <pre> { "isLegalEntity": true, "type": "Company", "existsDuring": { "startDate": "2003-04-19T16:42:23-04:00", "endDate": "" }, "tradingName": "Orange Romania", "nameType": "Co.", "organizationIdentification": [{ "type": "CompanyRegistrationNumber", "identificationId": "374748328", "issuingAuthority": "", "issuingDate": "2013-06-19T00:00:00-04:00", "validFor": { "startDateTime": "2013-04-19T16:42:23-04:00", "endDateTime": "2013-06-19T00:00:00-04:00" } }] }, </pre>

```
"externalReference": [  
  {  
    "href": "http: //facebook.com/17263635",  
    "type": "FacebookID"  
  }  
],  
"organizationParentRelationship": {  
  "relationshipType": "Juridical",  
  "id": "13",  
  "href": "http: //serverlocation: port/partyManagement/organization/13",  
  "validFor": {  
    "startDateTime": "2013-04-19T16:42:23-04:00",  
    "endDateTime": ""  
  }  
},  
"contactMedium": [  
  {  
    "type": "Email",  
    "validFor": {  
      "startDateTime": "2013-04-19T16:42:23-04:00",  
      "endDateTime": ""  
    },  
    "medium": {  
      "emailAddress": "abc@tmforum.com"  
    }  
  }, {  
    "type": "PostalAddress",  
    "validFor": {  
      "startDateTime": "2013-04-19T16:42:23-04:00",  
      "endDateTime": ""  
    },  
    "medium": {  
      "street1": "Lassallestrasse7",  
      "street2": "",  
      "postcode": "1020",  
      "stateOrProvince": "Quebec",
```

```
        "city": "Wien",
        "country": "Austria"
    }
}, {
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23-04:00",
        "endDateTime": ""
    },
    "medium": {
        "type": "mobile",
        "number": "+436641234567"
    }
}, {
    "preferred": true,
    "type": "TelephoneNumber",
    "validFor": {
        "startDateTime": "2013-04-19T16:42:23-04:00",
        "endDateTime": ""
    },
    "medium": {
        "type": "business",
        "number": "+436641234567"
    }
}
]
}
```

RESPONSE

201
Content-Type: application/json

```
{
    "id": "44",
    "href": "http://serverlocation:port/partyManagement/organization/44",
    "isLegalEntity": true,
    "type": "Company",
}
```

```
"existsDuring": {
  "startDate": "2003-04-19T16:42:23-04:00",
  "endDate": ""
},
"tradingName": "Orange Romania",
"nameType": "Co.",
"organizationIdentification": [
  {
    "type": "CompanyRegistrationNumber",
    "identificationId": "374748328",
    "issuingAuthority": "",
    "issuingDate": "2013-06-19T00:00:00-04:00",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23-04:00",
      "endDateTime": "2013-06-19T00:00:00-04:00"
    }
  }
],
"externalReference": [
  {
    "href": "http://facebook.com/17263635",
    "type": "FacebookID"
  }
],
"organizationParentRelationship": {
  "relationshipType": "Juridical",
  "id": "13",
  "href": "http://serverlocation:port/partyManagement/organization/13",
  "validFor": {
    "startDateTime": "2013-04-19T16:42:23-04:00",
    "endDateTime": ""
  }
},
"contactMedium": [
  {
    "type": "Email",
```

```
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23-04:00",
      "endDateTime": ""
    },
    "medium": {
      "emailAddress": "abc@tmforum.com"
    }
  }, {
    "type": "PostalAddress",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23-04:00",
      "endDateTime": ""
    },
    "medium": {
      "street1": "Lassallestrasse7",
      "street2": "",
      "postcode": "1020",
      "stateOrProvince": "Quebec",
      "city": "Wien",
      "country": "Austria"
    }
  }, {
    "type": "TelephoneNumber",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23-04:00",
      "endDateTime": ""
    },
    "medium": {
      "type": "mobile",
      "number": "+436641234567"
    }
  }, {
    "preferred": true,
    "type": "TelephoneNumber",
    "validFor": {
      "startDateTime": "2013-04-19T16:42:23-04:00",
```

```

        "endTime": "",
      },
      "medium": {
        "type": "business",
        "number": "+436641234567"
      }
    }
  ]
}

```

DELETE PARTYMANAGEMENT/INDIVIDUAL/{ID} OR /ORGANIZATION/{ID}

Only useful and allowed for administration matters

REQUEST

DELETE partyManagement/individual/11

RESPONSE

200

POST PARTYMANAGEMENT/IMPORTJOB

ImportJob Tasks are created as resources.

The ImportJob is attached to the URL of the root resource where the content of the file specified by the ImportJob will be applied.

For example to apply the content of the import file located at <ftp://ftp.myParty.com/party/54> to the partyManagement root.

REQUEST
POST ../partyManagement/importJob Content-type: application/json <pre>{ "url": "ftp://ftp.myParty.com/party/54" }</pre>
RESPONSE
201 Content-Type: application/json Location: ../partyManagement/importJob/554 <pre>{ "id": "54", "href": "http://api/partyManagement/importJob/54", "status": "running", "path": "partyManagement/", "content-type": "application/json", "errorLog": "", "creationDate": "2013-04-19T16:42:23-04:00", "url": "ftp://ftp.myParty.com/party/54" }</pre>

POST PARTYMANAGEMENT/EXPORTJOB

ExportJob Tasks are created as resources.

The ExportJob is attached to a specific resource acting as the root for the collection of resources to be streamed to a File.

An ExportJob can be attached to a specific Resource in the Party Management application or may be attached to the Individual or Organization collections

- ../partyManagement/exportJob
Export all the resources within partyManagement subject to query and path assignments.
- ../partyManagement/individual/exportJob

Export all the individual resources within partyManagement subject to query and path assignments.

For example:

REQUEST
POST ../partyManagement/exportJob Content-type: application/json <pre>{</pre>
RESPONSE
201 Content-Type: application/json Location: ../partyManagement/exportJob/54 <pre>{ "id": "54", "href": "http://api/catalogManagement/exportJob/54", "status": "running", "path": "partyManagement/", "content-type": "application/json", "errorLog": "", "creationDate": "2013-04-19T16:42:23-04:00", "completionDate": "2013-04-21T16:42:23-04:00", "url": "ftp://ftp.myParty.com/party/54" }</pre>

GET PARTYMANAGEMENT/EXPORTJOB

ExportJob resources can be found under the API/exportJob collection and may be retrieved using the normal GET constructs.

For example:

REQUEST
GET ../partyManagement/exportJob/54 Content-type: application/json { }
RESPONSE
200 Content-Type: application/json { "id": "54", "href": "http://api/catalogManagement/exportJob/54", "status": "running", "path": "partyManagement/", "content-type": "application/json", "errorLog": "", "creationDate": "2013-04-19T16:42:23-04:00", "completionDate": "2013-04-21T16:42:23-04:00", "url": "ftp://ftp.myParty.com/party/54" }

GET PARTYMANAGEMENT/IMPORTJOB

ImportJob resources can be found under the API/importJob collection and may be retrieved using the normal GET constructs.

For example:

REQUEST
GET ../partyManagement/importJob/54 Content-type: application/json

```
{  
}
```

RESPONSE

200
Content-Type: application/json

```
{  
  "id": "54",  
  "href": "http://api/catalogManagement/importJob/54",  
  "status": "running",  
  "path": "partyManagement/",  
  "content-type": "application/json",  
  "errorLog": "",  
  "creationDate": "2013-04-19T16:42:23-04:00",  
  "completionDate": "2013-04-21T16:42:23-04:00",  
  "url": "ftp://ftp.myParty.com/party/54"  
}
```

API NOTIFICATION TEMPLATES

For every single of operation on the entities use the following templates and provide sample REST notification POST calls.

It is assumed that the Pub/Sub uses the Register and UnRegister mechanisms described in the REST Guidelines reproduced below.

REGISTER LISTENER POST /HUB

Description :

Sets the communication endpoint address the service instance must use to deliver information about its health state, execution state, failures and metrics. Subsequent POST calls will be rejected by the service if it does not support multiple listeners. In this case DELETE /api/hub/{id} must be called before an endpoint can be created again.

Behavior :

Returns HTTP/1.1 status code 204 if the request was successful.

Returns HTTP/1.1 status code 409 if request is not successful.

REQUEST
POST /api/hub Accept: application/json <pre>{ "callback": "http://in.listener.com" }</pre>
RESPONSE
201 Content-Type: application/json Location: /api/hub/42 <pre>{"id": "42", "callback": "http://in.listener.com", "query": null}</pre>

UNREGISTER LISTENER DELETE HUB/{ID}

Description :

Clears the communication endpoint address that was set by creating the Hub.

Behavior :

Returns HTTP/1.1 status code 204 if the request was successful.

Returns HTTP/1.1 status code 404 if the resource is not found.

REQUEST
DELETE /api/hub/{id} Accept: application/json
RESPONSE
204

PUBLISH {EVENTTYPE} POST /LISTENER

Description :

Provide the Event description

Behavior :

Returns HTTP/1.1 status code 201 if the service is able to set the configuration.

REQUEST
POST /client/listener Accept: application/json
<pre>{ "eventType": "EventType", "eventTime": "2014-09-27T05:46:25.0Z", "eventId": "1562231", "event": { EVENT BODY } }</pre>
RESPONSE

201
Content-Type: application/json

Example see TMF REST Design Guidelines.

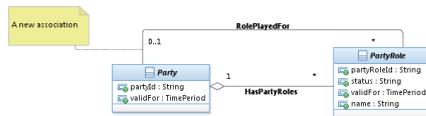
NOTES

MANAGING PARTYROLES RELATIONSHIP IN THE CUSTOMER/PARTY MODEL

1. Model modification (relative to SID)

In order to capture some use cases we added a relationship between PartyRole and Party which represents the role is played for (this association is part of existing Amdocs contribution on [FrameworkAgreement](#)). This way a CSP (Orange) can model employer/employee relationship between Individual (Josh) and Organization (Amdocs).

From UML perspective the modified model looks like



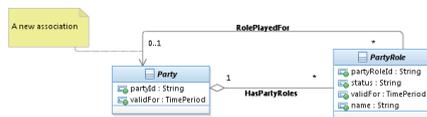
In order to simplify the JSON resource model we decided that in some cases the relation between parties will use the PartyRole entity as association class that was promoted to an entity; hence the JSON model in some cases looks like

```

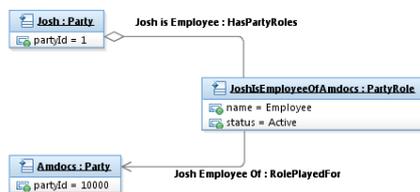
{
  "relatedParty": [
    {
      "role": "Employee",
      "id": "100000",
      "href":
"http://serverlocation:port/partyManagement/organization/100000",
      "validFor": {
        "startDateTime": "2013-04-19T16:42:23-04:00",
        "endDateTime": "2013-06-19T00:00:00-04:00"
      }
    }
  ]
}
  
```

Please note that the attributes of the relatedParty dependent entity are the PartyRole attributes, but also that in some cases in the digital services APIs this construct is used for association to PartyRole (Customer) and not to Party.

Another important observation is that from service model perspective the model above is not symmetrical. The direction from Party, through the PartyHasRoles association and then via RolePlayedFor association back to party is more important than the other direction. In UML service model we will show it as



Let's assume now that we implement in the model the Employee PartyRole but not the Employer PartyRole (this is implementation decision, but a reasonable one). So let's look at the very simple model with 3 instances:



Note: Amdocs does not have a PartyRole instance with the role Employer

From JSON resource model perspective it means that we want to show the primary direction when we retrieve the related party (so when we retrieve Individual for Josh we want to show the Employee role and association to Organization Amdocs), but not the other side (when we retrieve Amdocs we don't want to show in the Amdocs resource model all the employees) – if we want to retrieve all the Amdocs employees we need a task API for that.

RELEASE HISTORY

Release Number	Date	Release led by:	Description
Release 1.0	04/15/2013	Pierre Gauthier TM Forum pgauthier@tmforum.org Christian Traxler (Infonova) Alexander Sturn (Infonova) Gilbert Scheibelhofer (A1) Josh Salomon (Amdocs) Véronique Mauneau (Orange) Maxime Delon (Orange)	First Release of Draft Version of the Document.
Release 1.1		Christian Traxler (Infonova) Daniel Buinac (Ericsson)	Updated during Paris Spec Jam – and rebranded

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