

TM Forum Specification

User Role Permission Management API User Guide

TMF672

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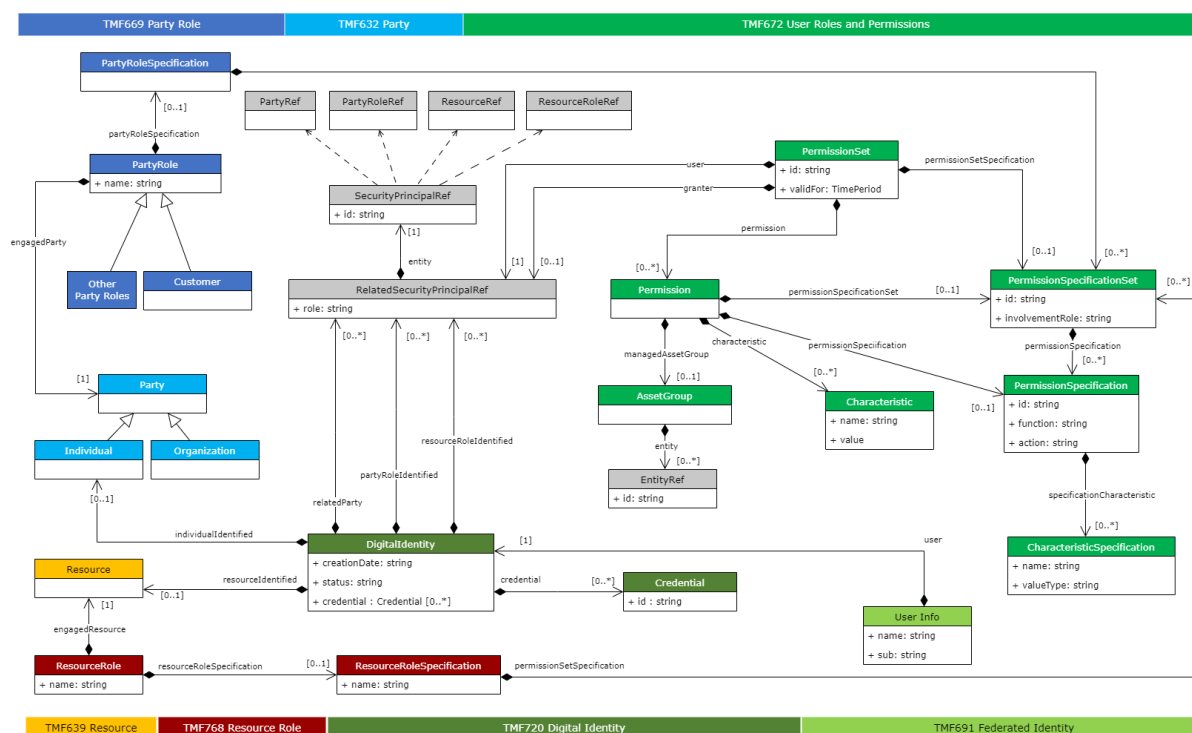
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Introduction

The following document is the specification of the REST API for User Roles and Permissions management. It includes the model definition as well as all available operations for creating user permissions and checking permissions.

This API plays an important role in the global party domain relating to TMF632 Party Management API, TMF669 Party Role Management API, TMF629 Customer Management API, TMF720 Digital Identity Management API, TMF691 Federated Identity API, TMF639 Resource Management API and TMF768 Resource Role Management API, to managing and controlling access to information and resources within an organization or network. In summary, these TM Forum Open APIs are related to managing parties and their associated roles and digital identities within a network, as well as controlling access to information and resources through user roles and permissions. They provide a standardized way for organizations to manage these processes and enable integration with other systems.

Following diagram illustrates the involved entities in a global party domain overview, referencing related TM Forum Open APIs and resource model entities:



Note The current scope of this API applies permissions to Party and Party Role. A projected enhancement to the API model will add permissions also for Resource and Resource Role (for logical resources such as software components, or physical resources such as home gateways, iot devices, etc.).

For this API, the following definitions apply. Note that new terminology has been introduced in this version of the API, to align with the model in the Information Framework (SID). The terms used in the previous version are referred to in these definitions.

- A **Manageable Asset** is the realization of something that can be used and managed by users (e.g.: any of the resources created as part of a purchased product, a service

provided to individuals, a block of personal data of an individual, a shopping cart entity, etc.). In practical terms this will be a managed entity as defined by the TM Forum Open API model.

- An **Asset Group** is a logical group of manageable assets, described in various ways:
- **Filter** – defines the group by a filter expression on a specific type of entity
- **JSON Path** – defines the group by a JSON Path expression on a specific type of entity
- **List** – an explicit list of entities defined by their IDs
- **Set** – defines the group by a predefined set of entity types, such as all product catalog entities, all entities owned by a customer
- A **Permission** (formerly known as **Privilege** or **Asset User Role**) allows a user to carry out activities and/or access data in an entity. Permissions may apply globally (i.e. without reference to specific entities) or to an entity or set of entities.
- A **User** is a **Party**, playing a **Party Role**, to whom permissions are given to carry out activities and/or access data. For example, a registered customer, a CSP employee, a legal guardian, a family member, or any other individual who has been granted permissions.
- A **Permission Set** (formerly known as **Permission**) is a set of permissions granted to a user. The set may be granted explicitly by an authorized user or may be acquired implicitly due to the role that the user is playing. The set may have a validity period, so that the permissions in the set apply only during that period.
- A **Permission Specification** (formerly known as **Entitlement**) is a definition of a permissible action on some function:
 - Action will be Read, Write, or similar
 - Function will typically be the class name of an entity (such as Customer). Alternatively, it might be some string that is understood by the permission enforcement (such as grantAlteration).
- A **Permission Specification Set** (formerly known as **User Role**) is a set of **Permission Specifications** defines a set of permissions covering various functions and/or manageable assets. Typically, a **Party Role Specification** (that defines **Party Roles**) will use one or more **Permission Specification Sets**. Thus, when a user adopts a Party Role it will acquire the permissions that are implied by those assigned a **Permission Specification Sets**.

Note: **Party Role Specification** is not managed as part of this API. It is expected to be part of the Party Role Management API in v5.

- A **Security Principal** is a user (directly or indirectly) of a software system, either a human (Individual) or an autonomous software process (Resource).
- **Role-based Access Permission** (RBAC) is a scheme defining the activities that can be carried out by a security principal according to the roles acquired by the principal
- **Attribute-based Access Permission** (ABAC) is an extension of RBAC, where the activities that can be carried out are controlled also by the values of attributes (characteristics) of the security principal and/or the controlled asset

This API allows the following operations

- Create new permission set granted by an individual to a security principal to access his owned manageable assets.
- Modify specific existing permission set (total or partial update).
- Delete specific existing permission set.
- Read specific existing permission set.
- Read existing permission sets. It can be filtered for specific criteria (e.g.: date recorded, granter, user, asset, etc.).
- Create new permission specification set, defining a set of permissions that be attached to a party role specification or referenced in a permission set.
- Modify specific existing permission specification set (total or partial update).
- Delete specific existing permission specification set.
- Read existing permission specification sets, optionally filtered for specific criteria.
- Read specific existing permission specification set.
- Create new permission specification
- Modify specific existing permission specification (total or partial update).
- Delete specific existing permission specification.
- Read specific existing permission specification.
- Read existing permission specifications, optionally filtered for specific criteria.
- Check permission to verify if a given security principal can carry out the action defined in a permission specification over an optional manageable asset and and optional permission characteristics.

Consuming this API must be done following a secured mechanism (e.g.: OAuth2.0) so that permissions to access manageable assets is only granted by consumers holding a valid authorization to operate on those manageable assets and grant permissions.

This API assumes that once a product is purchased by a customer (under a given account), as part of the product instantiation during the provisioning process, if a manageable asset is created under that product instance (e.g.: an eCare system registration, an account into a digital service platform, ...) then this manageable asset will be assigned as owner to the individual that has admin rights over the customer and account entity under which the product was purchased. This association will be the first permission registered in the system (root permission) over the specific manageable asset, granting that individual (or another one if the purchasing process allows defining another admin for the manageable assets created) owner access to that asset and then the owner can use this API to grant access, with different access levels, to other individuals (users).

Asset Group

Some of the use cases require specification of a list of entities, either explicitly or implicitly, for example:

- All the entities owned by a specific customer; the customer will have full permissions on those entities, but no other customers can access the entities
- All product catalog entities in a certain line of business; a marketer can create and modify catalog entities only in this line of business (e.g., mobile).
- A specific list of products for which permissions were granted by the customer to her delegate

Checking Permissions

In addition to modelling the authoring and assigning permissions, this API includes a task operation that allows permissions to be checked at runtime. This is an easier and secure way for a consumer to determine if an action is allowed (as against retrieving all the permissions for a security principal and evaluating the logic in the consumer).

For simple RBAC use cases, the operation could be invoked by an API gateway which could then cache the results. For more complex use cases, the operation could be called by an experience layer or by a business layer.

The following request illustrates a basic request to check if a product manager user is entitled to create product offerings:

```
POST /rolesAndPermissionsManagement/v5/checkPermission HTTP/1.1
Content-Type: application/json
```

```
{
  "@type": "CheckPermission",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "function": "ProductOffering",
    "action": "create"
  },
  "user": {
    "role": "ProductManager",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  }
}
```

A more complex example checks if a sales agent is able to apply a 10% discount on a specific product order:

```
POST /rolesAndPermissionsManagement/v5/checkPermission HTTP/1.1
Content-Type: application/json
```

```
{
  "@type": "CheckPermission",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "function": "ProductOrder",
    "action": "grantAlteration"
  },
  "user": {
    "role": "SalesAgent",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  }
}
```

```
}
  "characteristic": [
    {
      "@type": "Characteristic",
      "name": "reductionPercentage",
      "value": 10
    }
  ],
  "entity": [
    {
      "@type": "EntityRef",
      "id": "PO555333313",
      "href":
        "https://serverRoot/productOrderingManagement/v5/productOrder/PO555333313",
      "@referredType": "ProductOrder"
    }
  ]
}
```

Setting up Permissions for Party Roles

The model is structured so that permission specs can be reused in multiple permission spec sets, and permission spec sets can themselves be used by multiple party role specs.

A typical workflow for setting up permissions would be as follows:

- Define the atomic permissions (specifications)
- Define permission set specifications as collections of these permissions
- Use the permission set specifications to define the allowed actions of a party role specification, which reflects the business meaning of these permissions.

A concrete example can illustrate, let's consider setting up permissions for product catalog marketeers. People playing this role can create and edit product offerings and product offering prices. They can also retrieve (but not change) product specifications. Selected marketeers can also receive offering imports from partners. We also need to consider a different type of user, who maintains catalog relationships with federation partners by transferring catalog data between partners.

We would set up basic permission specifications governing access to the product catalog entities:

Permission Specification	Function	Action	Notes
Manage Product Offering	ProductOffering	ReadWrite	The user can manage product offerings
Manage Product Offering Price	ProductOfferingPrice	ReadWrite	The user can manage product offering prices
Access Product Specification	ProductSpecification	Read	The user can search and retrieve product specifications
Access Product Offering	ProductOffering	Read	The user can search and retrieve product offerings
Access Product Offering Price	ProductOfferingPrice	Read	The user can search and retrieve product offering prices
Import Catalog	ImportJob	ReadWrite	The user can initiate an import job
Export Catalog	ExportJob	ReadWrite	The user can initiate an export job

Using these permission specifications, we now craft sets to reflect the different capabilities:

Permission Specification Set	Permission Specifications	Notes
Manage Offerings	Manage Product Offering, Manage Product Offering Price, Access Product Specification	The user can manage all aspects of product offerings and their prices
Review Catalog	Access Product Offering, Access Product Offering Price, Access Product Specification	
Import Catalog	Import Catalog	Can import but not export
Exchange Catalog	Import Catalog, Export Catalog	Can import and export

Finally, we can assign these permission specification sets to relevant party role specifications:

Party Role Specification	Permission Specification Sets	Notes
Product Catalog Marketeer	Manage Offerings	This is a regular marketeer, cannot import data
Senior Product Catalog Marketeer	Manage Offerings, Import Catalog	This marketeer can also import data into the catalog
Catalog Partner Manager	Exchange Catalog, Review Catalog	Can import and export, but not update catalog information

Sample Use Cases

This section includes a set of main use cases that can be performed with this API. Additional use cases can be generated using the operations and resources defined in this specification.

Use Case 1: New permission created

Description

The main purpose of this use case is the creation of a new permission by an individual so that another individual is authorized to get access to some of his assets. For instance, a user that owns a TV service can grant access to another user in order to make use of some of the functions within the service, for instance view only children movies, configure TV service or view documentaries.

Main Actors

- The owner of the assets (granter)
- The receiver of the permission (user)

Prerequisite: This API assumes that once a product is purchased by a customer (under a given account), as part of the product instantiation during the provisioning process, if a manageable asset is created under that product instance (e.g.: an eCare system registration, an account into a digital service platform, ...) then this manageable assets will be assigned as owner to the individual that has admin rights over the customer and account entity under which the product was purchased.

Use Case Steps

1. The owner of the assets, sends a request to allocate a permission to another user on his assets
2. The Operator receives the permission creation request including the following minimum information:
 - a. The period during which the permission is valid
 - b. Impacted user that is being granted access
 - c. Information on the manageable assets the user is granted access
 - d. The level of access granted over each of the manageable assets (indicating the functions that can be accessed on the asset and the actions that can be performed on those functions)
3. The Operator confirms that the requestor is authorized to assign permissions on the referenced manageable assets (i.e.: either is the owner or has access to the assets with appropriate level). This could be based on just the requestor identifier or via more sophisticated token-based authorization mechanisms.
4. The Operator allocates the requested access level for the referred manageable assets to the individual that has been granted by the owner.

Example of API Usage in the Context of the Use Case

The following API interactions support the use case:

- The owner of the manageable assets consumes the service offered by the Operator to create a new permission record.

The following request illustrates this use case example to create a permission set that grants specific TV service functions to an individual user:

```
POST /rolesAndPermissionsManagement/v5/permissionSet HTTP/1.1
Content-Type: application/json
```

```
{
  "@type": "PermissionSet",
  "creationDate": "2023-03-01T16:49:00.000Z",
  "description": "TV service usage granted by owner",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "TVProductUser",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "p0000002",
      "name": "Charlie Owens",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "TVProductOwner",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "p0000001",
      "name": "John Owens",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "id": "S123456789",
            "@type": "EntityRef",
            "@referredType": "Service"
          }
        ]
      },
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "function": "TV.Service.Configuration",
        "action": "Read"
      }
    }
  ]
}
```

```

    },
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "id": "S123456789",
            "@type": "EntityRef",
            "@referredType": "Service"
          }
        ]
      },
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "function": "Children.Movies",
        "action": "View"
      }
    }
  ]
}

```

Success Outcome

After completion of these API interactions, the individual that has been granted access to the referred manageable assets can make use according to the access level granted.

===

===

Use Case 2: New Permission Specification Set assigned to an individual

Description

The main purpose of this use case is the creation of a new permission specification set indicating the access level authorized on a given set of manageable assets to whoever is allocated this role.

Main Actors

- The admin operator that generates permission specification sets (user roles)
- The owner of the assets (granter)
- The individual allocated a given role (user)

Prerequisite: This API assumes that once a product is purchased by a customer (under a given account), as part of the product instantiation during the provisioning process, if a manageable asset is created under that product instance (e.g.: an eCare system registration, an account into a digital service platform, ...) then this manageable assets will be assigned as owner to the individual that has admin rights over the customer and account entity under which the product was purchased.

Use Case Steps

1. The admin operator, sends a request to create a new permission specification set including the following minimum information:
 - a. The level of access granted over a set of functions that can be accessed on an asset and the actions that can be performed on those functions
2. Once the permission specification set is defined, the owner of the assets (or the admin), sends a request to allocate a permission to another user based on the permission specification set definition, including the following minimum information:
 - a. The period during which the permission is valid
 - b. Impacted user that is being granted access
 - c. Information on the manageable assets the user is granted access
 - d. The permission specification set allocated to the user on the referenced asset
3. The Operator confirms that the requestor is authorized to assign permissions on the referenced manageable assets (i.e.: either is the owner or has access to the assets with appropriate level). This could be based on just the requestor identifier or via more sophisticated token-based authorization mechanisms
4. The Operator allocates the requested access level for the referred manageable assets to the individual that has been granted by the owner.

Example of API Usage in the Context of the Use Case

The following API interactions support the use case:

- The admin operator consumes a service to create a new permission specification set. The following request and response illustrate an example that creates a service admin permission specification set:

REQUEST

```
POST /rolesAndPermissionsManagement/v5/permissionSpecificationSet HTTP/1.1
Content-Type: application/json

{
  "@type": "PermissionSpecificationSet",
  "involvementRole": "Service.Admin",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecification",
      "name": "service:readwrite",
      "function": "Service",
      "action": "ReadWrite"
    }
  ]
}
```

RESPONSE

```
200
```



```
Content-Type: application/json

{
  "id": "8a2a86e7-1ab2-4bb6-b447-a6d2e14b3d74",
  "@type": "PermissionSpecificationSet",
  "involvementRole": "Service.Administrator",
  "permissionSpecification": [
    {
      "id": "17f3619f-6b66-419d-b672-83ba5facd98a",
      "@type": "PermissionSpecification",
      "name": "service:readwrite",
      "function": "Service",
      "action": "ReadWrite"
    }
  ]
}
```

- The owner of the manageable assets consumes the service offered by the Operator to create a new permission record based on assigning a role to a user over a given asset.

Finally, the following request example can be used to assign the previously created permission specification set to an individual user from its owner.

REQUEST

```
POST /rolesAndPermissionsManagement/v5/permissionSet HTTP/1.1
Content-Type: application/json

{
  "@type": "PermissionSet",
  "creationDate": "2023-03-01T16:49:00.000Z",
  "description": "TV service usage granted by owner",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "TVProductUser",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "p0000003",
      "name": "Linda Owens",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "TVProductOwner",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "p0000001",
      "name": "John Owens",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",

```

```

    "managedAssetGroup": {
      "@type": "ListAssetGroup",
      "@baseType": "AssetGroup",
      "entity": [
        {
          "id": "S123456789",
          "@type": "EntityRef",
          "@referredType": "Service"
        }
      ]
    },
    "permissionSpecificationSet": {
      "@type": "PermissionSpecificationSetRef",
      "id": "8a2a86e7-1ab2-4bb6-b447-a6d2e14b3d7"
    }
  }
}

```

Success Outcome

After completion of these API interactions, the individual that has been granted access to the referred manageable assets can make use according to the access level defined for the allocated permission specification set.

Use Case 3: Legal Guardian on Behalf of Protected Adult

Description

The main purpose of this use case is the assignation of permissions to a Legal Guardian so that she can manage the Products belonging to a Customer who is a Protected Adult.

Note: This use case has been published as part of the ODA Implementation Guidelines for realizing use cases, here: <https://projects.tmforum.org/wiki/display/PUB/IG1228+Use+Case+UC006:+Legal+guardian+v4>. See there for full details of this use case. Here we cover only the items relevant to Roles and Permissions.

Main Actors

- The CSR who assigns rights to the guardian
- The guardian

Prerequisite: In this use case, the guardian is already registered with the CSP as a customer. This is not a necessary precondition for guardianship in general.

Use Case Steps

1. The guardian approaches the CSR and presents the relevant proofs (e.g., court documents) to the CSR
2. The CSR assigns Guardianship permissions to the guardian, with validity according to the time period specified in the proofs
3. The guardian logs into the self-service portal and is able to see the products belonging to

the protected adult, as well as her own products, due to her Guardianship permissions.

Example of API Usage in the Context of the Use Case

The following API interactions support the use case:

- The CSR consumes an operation to assign permissions
- The guardian consumes an operation to check permissions on the protected adult's products

Success Outcome

After completion of these API interactions, the individual that has been granted access to the referred manageable assets can make use according to the access level defined for the allocated permission specification set.

Use Case 4: Customer selfcare administrator role assigned to an individual

Description

The main purpose of this use case is the creation of a customer selfcare administrator role (permission specification set) with specific entitlements authorized on a given set of manageable assets to whoever is allocated this role.

Main Actors

- The admin operator that generates permission specification sets (user roles)
- The owner of the assets (granter)
- The individual allocated a given role (user)

Prerequisite: This API assumes that once a product is purchased by a customer (under a given account), as part of the product instantiation during the provisioning process, if a manageable asset is created under that product instance (e.g.: an eCare system registration, an account into a digital service platform, ...) then this manageable assets will be assigned as owner to the individual that has admin rights over the customer and account entity under which the product was purchased.

Use Case Steps

1. The admin operator, sends a request to create a new permission specification set including the following minimum information:
 - a. The level of access granted over a set of functions that can be accessed on an asset and the actions that can be performed on those functions
2. Once the permission specification set is defined, the owner of the assets (or the admin), sends a request to allocate a permission to another user based on the permission specification set definition, including the following minimum information:
 - a. The period during which the permission is valid

- b. Impacted user that is being granted access
 - c. Information on the manageable assets the user is granted access
 - d. The permission specification set allocated to the user on the referenced asset
3. The Operator confirms that the requestor is authorized to assign permissions on the referenced manageable assets (i.e.: either is the owner or has access to the assets with appropriate level). This could be based on just the requestor identifier or via more sophisticated token-based authorization mechanisms
4. The Operator allocates the requested access level for the referred manageable assets to the individual that has been granted by the owner.

Example of API Usage in the Context of the Use Case

The following API interactions support the use case:

- The admin operator consumes a service to create a new permission specification set
The following request and response illustrate an example that creates a service admin permission specification set:

REQUEST

```
POST /rolesAndPermissionsManagement/v5/permissionSpecificationSet HTTP/1.1
Content-Type: application/json

{
  "@type": "PermissionSpecificationSet",
  "involvementRole": "Customer.Selfcare.Admin",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecification",
      "description": "Permission to manage users and to add or remove permissions to delegated users.",
      "name": "usermanagement:readwrite",
      "function": "user_management",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "description": "Permission to view and change account data details.",
      "name": "accountdetails:readwrite",
      "function": "account_details",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "description": "Permission to place request to change holder data.",
      "name": "holderdata:change",
      "function": "change_holder_data",
      "action": "ReadWrite",
      "specificationCharacteristic": [
        {
          "@type": "CharacteristicSpecification",
          "name": "Macro.Segment",
          "valueType": "string",
          "characteristicValueSpecification": [
            {
```

```

        "@type": "StringCharacteristicValueSpecification",
        "valueType": "string",
        "value": "mass_market"
      },
      {
        "@type": "StringCharacteristicValueSpecification",
        "valueType": "string",
        "value": "residential"
      }
    ]
  }
}
]
}

```

RESPONSE

```

200
Content-Type: application/json

{
  "@type": "PermissionSpecificationSet",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
  edd9d8a4",
  "id": "pss-edd9d8a4",
  "involvementRole": "Customer.Selfcare.Admin",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
      dd798b34",
      "id": "ps-dd798b34",
      "description": "Permission to manage users and to add or remove permissions to
      delegated users.",
      "name": "usermanagement:readwrite",
      "function": "user_management",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
      591c77a2",
      "id": "ps-591c77a2",
      "description": "Permission to view and change account data details.",
      "name": "accountdetails:readwrite",
      "function": "account_details",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
      9f32c9e0",
      "id": "ps-9f32c9e0",
      "description": "Permission to place request to change holder data.",
      "name": "holderdata:change",

```

```

    "function": "change_holder_data",
    "action": "ReadWrite",
    "specificationCharacteristic": [
      {
        "@type": "CharacteristicSpecification",
        "name": "Macro.Segment",
        "valueType": "string",
        "characteristicValueSpecification": [
          {
            "@type": "StringCharacteristicValueSpecification",
            "valueType": "string",
            "value": "mass_market"
          },
          {
            "@type": "StringCharacteristicValueSpecification",
            "valueType": "string",
            "value": "residential"
          }
        ]
      }
    ]
  }
]
}

```

- The owner of the manageable assets consumes the service offered by the Operator to create a new permission record based on assigning a role to a user over a given asset.

Finally, the following request example can be used to assign the previously created permission specification set to an individual user from its owner.

REQUEST

```

POST /rolesAndPermissionsManagement/v5/permissionSet HTTP/1.1
Content-Type: application/json

{
  "@type": "PermissionSet",
  "description": "Customer selfcare admin profile granted by owner to delegate management of customers, products and services entities.",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "ProductUser",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "p0000003",
      "name": "Linda Owens",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "ProductOwner",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "p0000001",

```

```

        "name": "John Owens",
        "@type": "PartyRef",
        "@referredType": "Individual"
    },
    },
    "permission": [
        {
            "@type": "Permission",
            "managedAssetGroup": {
                "@type": "ListAssetGroup",
                "@baseType": "AssetGroup",
                "entity": [
                    {
                        "@type": "EntityRef",
                        "id": "C123456789",
                        "@referredType": "Customer"
                    }
                ]
            },
            "permissionSpecificationSet": {
                "@type": "PermissionSpecificationSet",
                "id": "pss-edd9d8a4"
            }
        },
        {
            "@type": "Permission",
            "managedAssetGroup": {
                "@type": "ListAssetGroup",
                "@baseType": "AssetGroup",
                "entity": [
                    {
                        "@type": "EntityRef",
                        "id": "5.99999.99.99.999999",
                        "@referredType": "Customer"
                    }
                ]
            },
            "permissionSpecificationSet": {
                "@type": "PermissionSpecificationSet",
                "id": "pss-edd9d8a4"
            }
        },
        {
            "@type": "Permission",
            "managedAssetGroup": {
                "@type": "ListAssetGroup",
                "@baseType": "AssetGroup",
                "entity": [
                    {
                        "@type": "EntityRef",
                        "id": "1-44up07",
                        "@referredType": "Product"
                    }
                ]
            },
            "permissionSpecificationSet": {
                "@type": "PermissionSpecificationSet",
                "id": "pss-edd9d8a4"
            }
        }
    ]
}

```

```

    "@type": "ListAssetGroup",
    "@baseType": "AssetGroup",
    "entity": [
      {
        "@type": "EntityRef",
        "id": "S123456789",
        "@referredType": "Service"
      }
    ],
    "permissionSpecificationSet": {
      "@type": "PermissionSpecificationSet",
      "id": "pss-edd9d8a4"
    }
  }
]
}

```

Success Outcome

After completion of these API interactions, the individual that has been granted access to the referred manageable assets can make use according to the access level defined for the allocated permission specification set.

Additional Use Cases (RBAC)

On-boarding CSP Employee as Junior CSR user

Junior CSR Employee performs customer maintenance

Self-service user has access to her own customer maintenance activities

Additional Use Cases (ABAC)

Consumer CSR can only access Consumer customer accounts and B2B CSR can access only B2B customer

Consumer CSR in North market can access customers, products, etc. only in that market

Account Managers could access only the customers which they manage - e.g., PepsiCo account manager cannot see Coca Cola details

Enterprise Customer gives rights to certain employees to manage specific parts of the structure, e.g., Joe Doe can manage all the mobiles held in legal department, Jane Dane can manage the mobiles of sales, etc.

Network Department supervisor gives rights to network engineer to manage some NFVs

Catalog Administrator gives rights to marketer to create offerings in Mobile line-of-business

Customers are enabled to self-provision some service characteristics

Support of polymorphism and extension patterns

Support of polymorphic collections and types and schema-based extension is provided by means of a list of generic meta-attributes that we describe below. Polymorphism in collections occurs when entities inherit from base entities, for instance a `FilterAssetGroup` and `ListAssetGroup` inheriting properties from the abstract `AssetGroup` entity.

Generic support of polymorphism and pattern extensions is described in the TMF API Guidelines v3.0 Part 2 document.

The `@type` attribute provides a way to represent the actual class type of an entity. For example, within a list of `AssetGroup` instances some may be instances of `FilterAssetGroup` where other could be instances of `ListAssetGroup`. The `@type` gives this information. All resources and sub-resources of this API have a `@type` attributes that can be provided when this is useful.

The `@referredType` can be used within reference entities (like for instance an `AssetGroupRef` object) to explicitly denote the actual entity type of the referred class. Notice that in reference entities the `@type`, when used, denotes the class type of the reference itself, such as `FilterAssetGroupRef` or `ListAssetGroupRef`, and not the class type of the referred object. However, since reference classes are rarely sub-classed, `@type` is generally not useful in reference objects.

The `@schemaLocation` property can be used in resources to allow specifying user-defined properties of an Entity or to specify the expected *characteristics* of an entity.

The `@baseType` attribute gives a way to provide explicitly the base of class of a given resource that has been extended.

RESOURCE MODEL

Managed Entity and Task Resource Models

PermissionSet resource

The PermissionSet is a set of Permissions granted to a user (party, party role or resource). The set may be granted explicitly by an authorized user or may be acquired implicitly due to the role that the user is playing.

Resource model

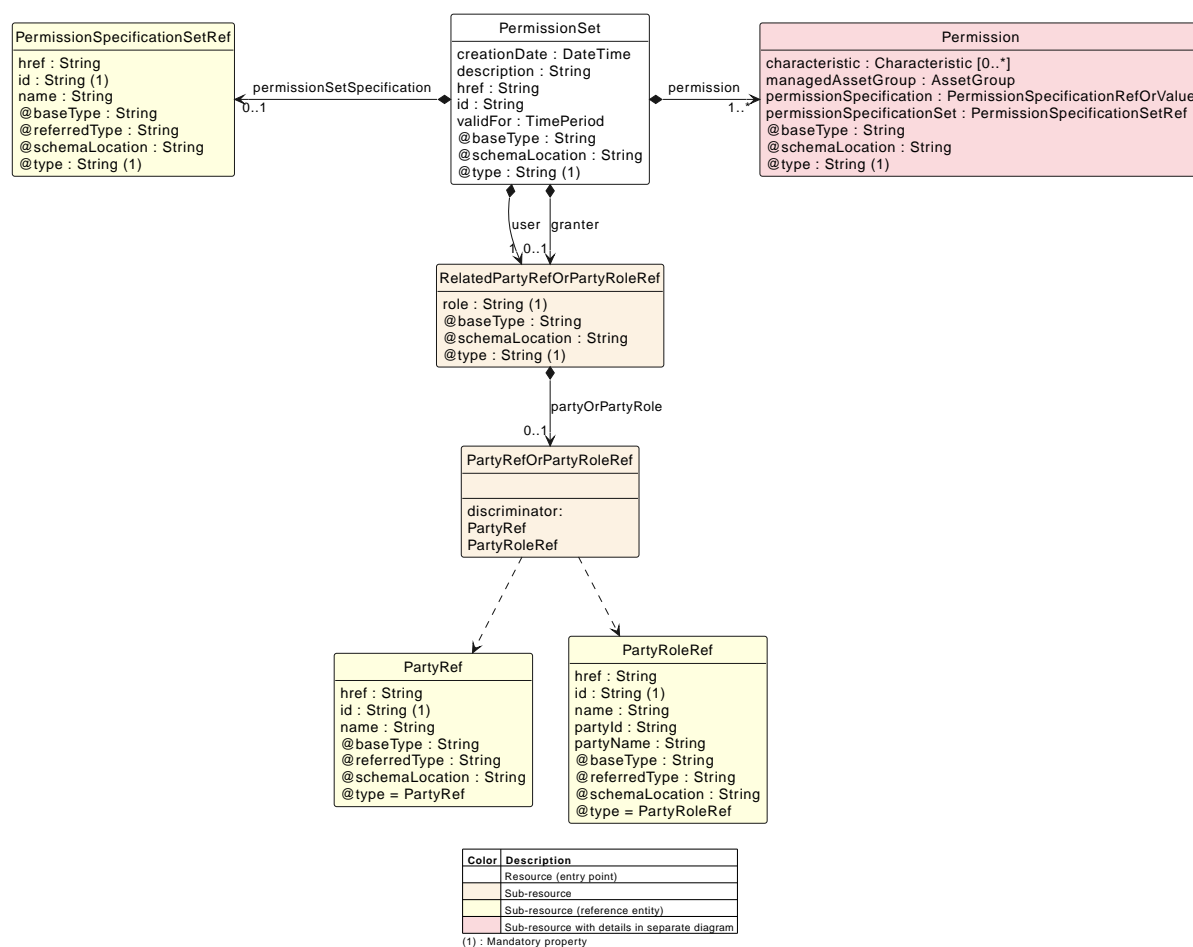


Figure 1 - PermissionSet

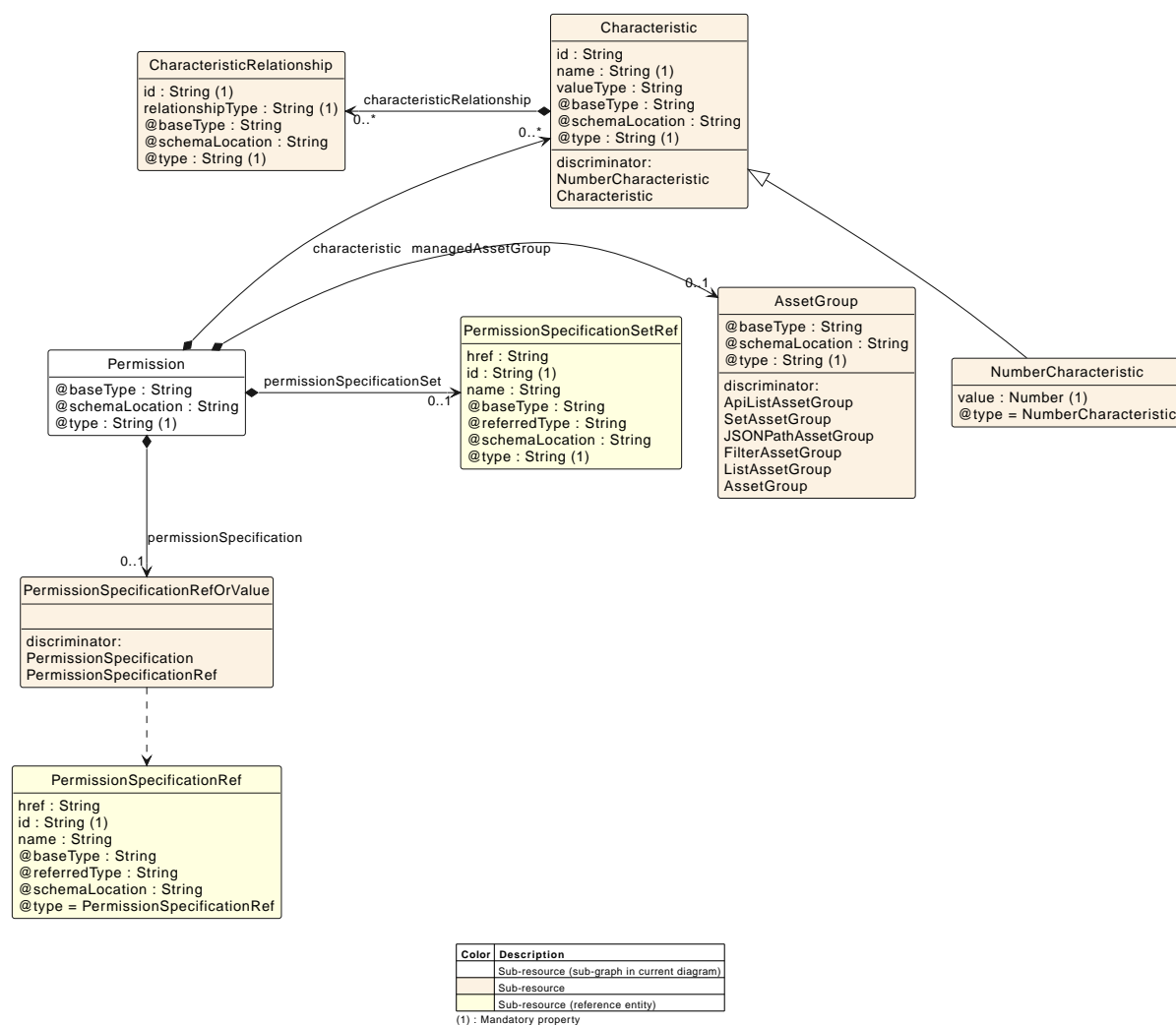


Figure 2 - Permission

Field descriptions

PermissionSet fields

creationDate	A DateTime. Date when the PermissionSet was created and assigned to a user.
description	A String. Text describing the permission set.
granter	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
permission	A Permission. A Permission allows a user to carry out activities and/or access data in an entity. Permissions may apply globally (i.e. without reference to specific entities) or to an entity or set of entities.

permissionSetSpecification	A PermissionSpecificationSetRef. A PermissionSpecificationSet defines a set of permissions that can be attached to a party role specification. The resulting permissions will then apply to all users that adopt this party role.
user	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PermissionSpecificationSetRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Permission sub-resource fields

characteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as * NumberCharacteristic</p>
----------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

managedAssetGroup	<p>An AssetGroup. Defines a group of assets (entities) to which access can be controlled. Specific subclasses allow definition in various ways (list of entities, queries, ownership by customer, etc.). AssetGroup is not a managed entity, its concrete subclasses are always included by value in their containing entities.</p> <p>AssetGroup can be instantiated as</p> <ul style="list-style-type: none"> * ApiListAssetGroup * FilterAssetGroup * JSONPathAssetGroup * ListAssetGroup * SetAssetGroup
permissionSpecification	A PermissionSpecificationRefOrValue. Related Entity reference. A related PermissionSpecification defines a PermissionSpecification described by reference or by value linked to a specific entity. The polymorphic attributes @type, @schemaLocation & @referredType are related to the PermissionSpecification entity and not the PermissionSpecificationRefOrValue class itself.
permissionSpecificationSet	A PermissionSpecificationSetRef. A PermissionSpecificationSet defines a set of permissions that can be attached to a party role specification. The resulting permissions will then apply to all users that adopt this party role.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

RelatedPartyRefOrPartyRoleRef sub-resource fields

partyOrPartyRole	A PartyRefOrPartyRoleRef.
role	A String. Role played by the related party or party role in the context of the specific entity it is linked to. Such as 'initiator', 'customer', 'salesAgent', 'user'.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PermissionSpecification sub-resource fields

action	A String. Level of access granted as part of the permission, such as read or write.
--------	-------------------------------------------------------------------------------------

description	A String. A fuller description of the permission specification, should describe to a human user what the purpose is of this permission.
function	A String. The function to which the action applies, could be an entity class name, in which case the action defines permission to read or modify these entities. E.g. Read ProductOffering. Alternatively, the function is an agreed string that reflects a specific functionality to which access is controlled, such as giving an ad-hoc price reduction in a product order.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A descriptive name of the permission specification, should summarize to a human user what the purpose is of this permission.
specificationCharacteristic	A CharacteristicSpecification. This class defines a characteristic specification.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PermissionSpecificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Characteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.

@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
	Characteristic can be instantiated as * NumberCharacteristic
value	This property is present in subclasses

NumberCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
value	A Number. Value of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

AssetGroup sub-resource fields

@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
	AssetGroup can be instantiated as * ApiListAssetGroup * FilterAssetGroup * JSONPathAssetGroup * ListAssetGroup * SetAssetGroup
apiProduct	This property is present in subclasses
entity	This property is present in subclasses
entityType	This property is present in subclasses
filter	This property is present in subclasses
jsonPath	This property is present in subclasses
name	This property is present in subclasses

ApiListAssetGroup sub-resource fields

apiProduct	A ProductRef. A Product reference.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

SetAssetGroup sub-resource fields

entityType	A String. List of entity types for this named list.
name	A String. Name of the list.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

JSONPathAssetGroup sub-resource fields

entityType	A String. The type of entity in the group, equivalent to @type in the entity definition. Must be a top-level managed entity. The JSON Path expression is applied to this entity type.
jsonPath	A String. The JSON Path expression that defines the entities covered by a permission set, format of the filter is as per the JSON Path query parameter filter as defined in TMF630.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FilterAssetGroup sub-resource fields

entityType	A String. The type of entity in the group, equivalent to @type in the entity definition. Must be a top-level managed entity. The filter expression is applied to this entity type.
filter	A String. The filter expression that defines the entities covered by a permission set, format of the filter is as per the simple query parameter filter as defined in TMF630.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ListAssetGroup sub-resource fields

entity	An EntityRef. Entity reference schema to be use for all entityRef class.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CharacteristicSpecification sub-resource fields

charSpecRelationship	A CharacteristicSpecificationRelationship. An aggregation, migration, substitution, dependency or exclusivity relationship between/among Characteristic specifications. The specification characteristic is embedded within the specification whose ID and href are in this entity, and identified by its ID.
characteristicValueSpecification	<p>A CharacteristicValueSpecification. Specification of a value (number or text or an object) that can be assigned to a Characteristic. This is an abstract base class, the actual value is in one of the strongly-typed subclasses :</p> <p>BooleanArrayCharacteristicValueSpecification, BooleanCharacteristicValueSpecification, FloatArrayCharacteristicValueSpecification, FloatCharacteristicValueSpecification, IntegerArrayCharacteristicValueSpecification, IntegerCharacteristicValueSpecification, MapArrayCharacteristicValueSpecification, MapCharacteristicValueSpecification, NumberArrayCharacteristicValueSpecification, NumberCharacteristicValueSpecification, ObjectArrayCharacteristicValueSpecification, ObjectCharacteristicValueSpecification, StringArrayCharacteristicValueSpecification, StringCharacteristicValueSpecification...</p> <p>CharacteristicValueSpecification can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristicValueSpecification * BooleanCharacteristicValueSpecification * FloatArrayCharacteristicValueSpecification * FloatCharacteristicValueSpecification * IntegerArrayCharacteristicValueSpecification * IntegerCharacteristicValueSpecification * MapArrayCharacteristicValueSpecification * MapCharacteristicValueSpecification * NumberArrayCharacteristicValueSpecification * NumberCharacteristicValueSpecification * ObjectArrayCharacteristicValueSpecification * ObjectCharacteristicValueSpecification * StringArrayCharacteristicValueSpecification * StringCharacteristicValueSpecification

configurable	A Boolean. If true, the Boolean indicates that the target Characteristic is configurable.
description	A String. A narrative that explains the CharacteristicSpecification.
extensible	A Boolean. An indicator that specifies that the values for the characteristic can be extended by adding new values when instantiating a characteristic for a resource.
id	A String. Unique ID for the characteristic.
isUnique	A Boolean. Specifies if the value of this characteristic is unique across all entities instantiated from the specification that uses this characteristic. For example, consider a ProductSpecification for a set-top box, with a CharacteristicSpecification cardID. Each set-top box must have a different value for cardID, so this isUnique attribute would be set to true for the characteristic.
maxCardinality	An Integer. The maximum number of instances a CharacteristicValue can take on. For example, zero to five phone numbers in a group calling plan, where five is the value for the maxCardinality.
minCardinality	An Integer. The minimum number of instances a CharacteristicValue can take on. For example, zero to five phone numbers in a group calling plan, where zero is the value for the minCardinality.
name	A String. A word, term, or phrase by which this characteristic specification is known and distinguished from other characteristic specifications.
regex	A String. A rule or principle represented in regular expression used to derive the value of a characteristic value.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
valueType	A String. A kind of value that the characteristic can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
@valueSchemaLocation	A String. This (optional) field provides a link to the schema describing the value type.

CharacteristicSpecificationRelationship sub-resource fields

characteristicSpecificationId	A String. Unique identifier of the characteristic within the specification.
name	A String. Name of the target characteristic within the specification.

parentSpecificationHref	A Uri. Hyperlink reference to the parent specification containing the target characteristic.
parentSpecificationId	A String. Unique identifier of the parent specification containing the target characteristic.
relationshipType	A String. Type of relationship such as aggregation, migration, substitution, dependency, exclusivity.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

	<p>CharacteristicValueSpecification can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristicValueSpecification * BooleanCharacteristicValueSpecification * FloatArrayCharacteristicValueSpecification * FloatCharacteristicValueSpecification * IntegerArrayCharacteristicValueSpecification * IntegerCharacteristicValueSpecification * MapArrayCharacteristicValueSpecification * MapCharacteristicValueSpecification * NumberArrayCharacteristicValueSpecification * NumberCharacteristicValueSpecification * ObjectArrayCharacteristicValueSpecification * ObjectCharacteristicValueSpecification * StringArrayCharacteristicValueSpecification * StringCharacteristicValueSpecification
value	This property is present in subclasses

IntegerArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An Integer.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Boolean. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

MapCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.

valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Number. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ObjectCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.

unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

StringArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
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FloatArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Float.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

MapArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

value	An object.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Boolean.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FloatCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
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rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Float. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

IntegerCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An Integer. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.

@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

StringCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ObjectArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.

unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Collection of characteristic values.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Number.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
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CharacteristicRelationship sub-resource fields

id	A String. Unique identifier of the characteristic.
relationshipType	A String. The type of relationship.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ProductRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

EntityRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PartyRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.

name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PartyRoleRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
partyId	A String. The identifier of the engaged party that is linked to the PartyRole object.
partyName	A String. The name of the engaged party that is linked to the PartyRole object.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Json representation sample(s)

We provide below a JSON representation as example of the 'PermissionSet' resource object.

```
{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
  "id": "Prms-jnzgh456",
  "creationDate": "2019-10-01T00:00:00.000Z",
  "description": "superProfile Granted for user",
  "validFor": {
    "startDateTime": "2019-10-01T00:00:00.000Z",
    "endDateTime": "2019-10-31T23:59:59.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",

```

```

    "@referredType": "Individual"
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-31d5b770",
        "id": "ps-31d5b770",
        "name": "ProductOrder:update",
        "function": "ProductOrder",
        "action": "update"
      },
      "managedAssetGroup": {
        "@baseType": "AssetGroup",
        "@type": "JSONPathAssetGroup",
        "entityType": "ProductOrder",
        "jsonPath": "filter=productSpecification=='tv-channel'&&productCharacteristic[?(@.name=='tvrating' && @.value=='children')]"
      }
    }
  ]
}

```

PermissionSpecificationSet resource

A PermissionSpecificationSet defines a set of permissions that can be attached to a party role specification. The resulting permissions will then apply to all users that adopt this party role.

Resource model

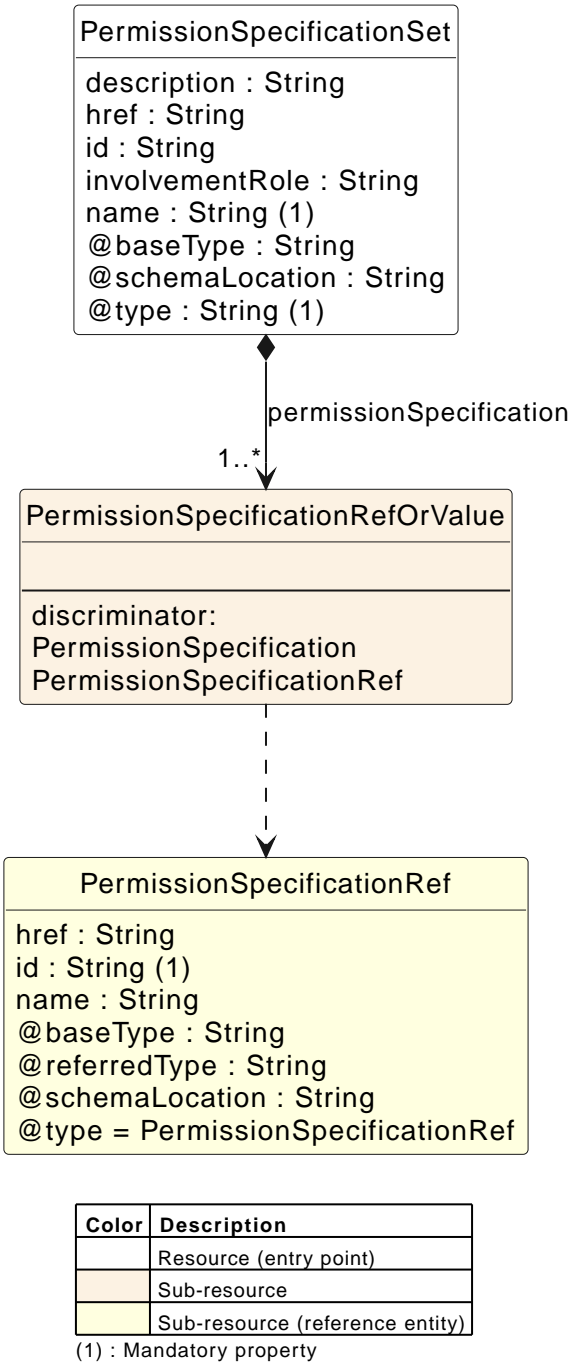


Figure 3 - `PermissionSpecificationSet`

Field descriptions

`PermissionSpecificationSet` fields

description	A String. A fuller description of the permission specification set, should describe to a human user what the purpose is of this set.
href	A String. Hyperlink reference.
id	A String. Unique identifier.

involvementRole	A String. Indication of the part that a user plays in its involvement with a manageable asset (product, service or resource).
name	A String. A descriptive name of the permission specification set, should summarize to a human user what the purpose is of this set.
permissionSpecification	A PermissionSpecificationRefOrValue. Related Entity reference. A related PermissionSpecification defines a PermissionSpecification described by reference or by value linked to a specific entity. The polymorphic attributes @type, @schemaLocation & @referredType are related to the PermissionSpecification entity and not the PermissionSpecificationRefOrValue class itself.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PermissionSpecification sub-resource fields

action	A String. Level of access granted as part of the permission, such as read or write.
description	A String. A fuller description of the permission specification, should describe to a human user what the purpose is of this permission.
function	A String. The function to which the action applies, could be an entity class name, in which case the action defines permission to read or modify these entities. E.g. Read ProductOffering. Alternatively, the function is an agreed string that reflects a specific functionality to which access is controlled, such as giving an ad-hoc price reduction in a product order.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A descriptive name of the permission specification, should summarize to a human user what the purpose is of this permission.
specificationCharacteristic	A CharacteristicSpecification. This class defines a characteristic specification.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PermissionSpecificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CharacteristicSpecification sub-resource fields

charSpecRelationship	A CharacteristicSpecificationRelationship. An aggregation, migration, substitution, dependency or exclusivity relationship between/among Characteristic specifications. The specification characteristic is embedded within the specification whose ID and href are in this entity, and identified by its ID.
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characteristicValueSpecification	<p>A CharacteristicValueSpecification. Specification of a value (number or text or an object) that can be assigned to a Characteristic. This is an abstract base class, the actual value is in one of the strongly-typed subclasses :</p> <p>BooleanArrayCharacteristicValueSpecification, BooleanCharacteristicValueSpecification, FloatArrayCharacteristicValueSpecification, FloatCharacteristicValueSpecification, IntegerArrayCharacteristicValueSpecification, IntegerCharacteristicValueSpecification, MapArrayCharacteristicValueSpecification, MapCharacteristicValueSpecification, NumberArrayCharacteristicValueSpecification, NumberCharacteristicValueSpecification, ObjectArrayCharacteristicValueSpecification, ObjectCharacteristicValueSpecification, StringArrayCharacteristicValueSpecification, StringCharacteristicValueSpecification...</p> <p>CharacteristicValueSpecification can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristicValueSpecification * BooleanCharacteristicValueSpecification * FloatArrayCharacteristicValueSpecification * FloatCharacteristicValueSpecification * IntegerArrayCharacteristicValueSpecification * IntegerCharacteristicValueSpecification * MapArrayCharacteristicValueSpecification * MapCharacteristicValueSpecification * NumberArrayCharacteristicValueSpecification * NumberCharacteristicValueSpecification * ObjectArrayCharacteristicValueSpecification * ObjectCharacteristicValueSpecification * StringArrayCharacteristicValueSpecification * StringCharacteristicValueSpecification
configurable	A Boolean. If true, the Boolean indicates that the target Characteristic is configurable.
description	A String. A narrative that explains the CharacteristicSpecification.
extensible	A Boolean. An indicator that specifies that the values for the characteristic can be extended by adding new values when instantiating a characteristic for a resource.
id	A String. Unique ID for the characteristic.
isUnique	A Boolean. Specifies if the value of this characteristic is unique across all entities instantiated from the specification that uses this characteristic. For example, consider a ProductSpecification for a set-top box, with a CharacteristicSpecification cardID. Each set-top box must have a different value for cardID, so this isUnique attribute would be set to true for the characteristic.
maxCardinality	An Integer. The maximum number of instances a CharacteristicValue can take on. For example, zero to five phone numbers in a group calling plan, where five is the value for the maxCardinality.

minCardinality	An Integer. The minimum number of instances a CharacteristicValue can take on. For example, zero to five phone numbers in a group calling plan, where zero is the value for the minCardinality.
name	A String. A word, term, or phrase by which this characteristic specification is known and distinguished from other characteristic specifications.
regex	A String. A rule or principle represented in regular expression used to derive the value of a characteristic value.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
valueType	A String. A kind of value that the characteristic can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
@valueSchemaLocation	A String. This (optional) field provides a link to the schema describing the value type.

CharacteristicSpecificationRelationship sub-resource fields

characteristicSpecificationId	A String. Unique identifier of the characteristic within the specification.
name	A String. Name of the target characteristic within the specification.
parentSpecificationHref	A Uri. Hyperlink reference to the parent specification containing the target characteristic.
parentSpecificationId	A String. Unique identifier of the parent specification containing the target characteristic.
relationshipType	A String. Type of relationship such as aggregation, migration, substitution, dependency, exclusivity.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
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rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
	CharacteristicValueSpecification can be instantiated as * BooleanArrayCharacteristicValueSpecification * BooleanCharacteristicValueSpecification * FloatArrayCharacteristicValueSpecification * FloatCharacteristicValueSpecification * IntegerArrayCharacteristicValueSpecification * IntegerCharacteristicValueSpecification * MapArrayCharacteristicValueSpecification * MapCharacteristicValueSpecification * NumberArrayCharacteristicValueSpecification * NumberCharacteristicValueSpecification * ObjectArrayCharacteristicValueSpecification * ObjectCharacteristicValueSpecification * StringArrayCharacteristicValueSpecification * StringCharacteristicValueSpecification
value	This property is present in subclasses

IntegerArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.

unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An Integer.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Boolean. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
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MapCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

value	A Number. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ObjectCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

StringArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
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rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FloatArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Float.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.

@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

MapArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.

unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Boolean.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FloatCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Float. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
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IntegerCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An Integer. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

StringCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

value	A String. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ObjectArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Collection of characteristic values.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
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rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Number.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Json representation sample(s)

We provide below a JSON representation as example of the 'PermissionSpecificationSet' resource object.

```
{
  "@type": "PermissionSpecificationSet",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
  ebe41def",
  "id": "pss-ebe41def",
  "involvementRole": "MyTV familyAdmin Profile",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
      5afe52c5",
      "id": "pss-5afe52c5"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
      769ef409",
      "id": "pss-769ef409"
    }
  ]
}
```

```
}  
]  
}
```

PermissionSpecification resource

A PermissionSpecification defines a permissible action (e.g. read, write) on some function, where a function can be an entity class name or some specific functionality.

Resource model

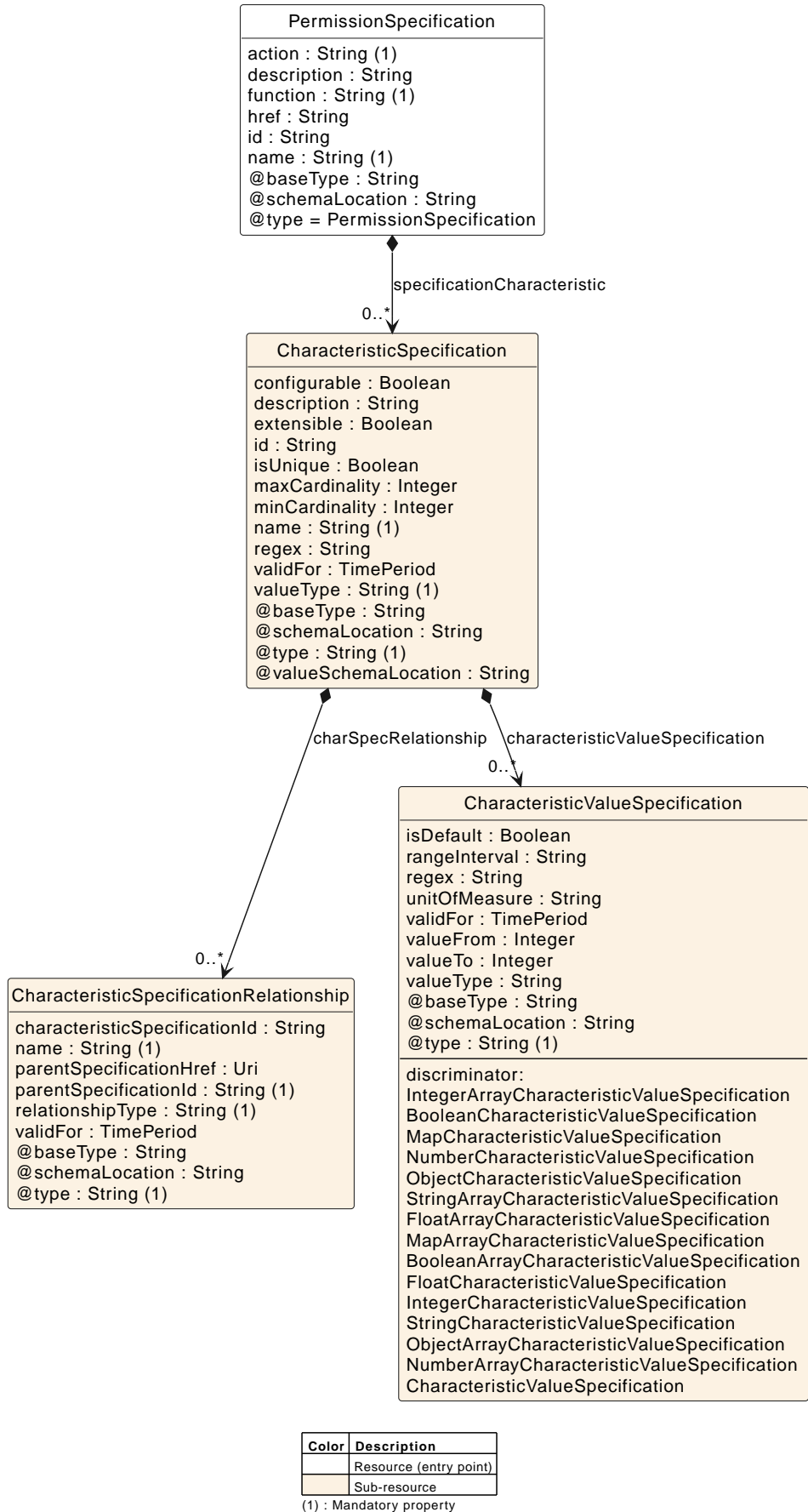


Figure 4 - PermissionSpecification

Field descriptions

PermissionSpecification fields

action	A String. Level of access granted as part of the permission, such as read or write.
description	A String. A fuller description of the permission specification, should describe to a human user what the purpose is of this permission.
function	A String. The function to which the action applies, could be an entity class name, in which case the action defines permission to read or modify these entities. E.g. Read ProductOffering. Alternatively, the function is an agreed string that reflects a specific functionality to which access is controlled, such as giving an ad-hoc price reduction in a product order.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A descriptive name of the permission specification, should summarize to a human user what the purpose is of this permission.
specificationCharacteristic	A CharacteristicSpecification. This class defines a characteristic specification.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CharacteristicSpecification sub-resource fields

charSpecRelationship	A CharacteristicSpecificationRelationship. An aggregation, migration, substitution, dependency or exclusivity relationship between/among Characteristic specifications. The specification characteristic is embedded within the specification whose ID and href are in this entity, and identified by its ID.
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characteristicValueSpecification	<p>A CharacteristicValueSpecification. Specification of a value (number or text or an object) that can be assigned to a Characteristic. This is an abstract base class, the actual value is in one of the strongly-typed subclasses :</p> <p>BooleanArrayCharacteristicValueSpecification, BooleanCharacteristicValueSpecification, FloatArrayCharacteristicValueSpecification, FloatCharacteristicValueSpecification, IntegerArrayCharacteristicValueSpecification, IntegerCharacteristicValueSpecification, MapArrayCharacteristicValueSpecification, MapCharacteristicValueSpecification, NumberArrayCharacteristicValueSpecification, NumberCharacteristicValueSpecification, ObjectArrayCharacteristicValueSpecification, ObjectCharacteristicValueSpecification, StringArrayCharacteristicValueSpecification, StringCharacteristicValueSpecification...</p> <p>CharacteristicValueSpecification can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristicValueSpecification * BooleanCharacteristicValueSpecification * FloatArrayCharacteristicValueSpecification * FloatCharacteristicValueSpecification * IntegerArrayCharacteristicValueSpecification * IntegerCharacteristicValueSpecification * MapArrayCharacteristicValueSpecification * MapCharacteristicValueSpecification * NumberArrayCharacteristicValueSpecification * NumberCharacteristicValueSpecification * ObjectArrayCharacteristicValueSpecification * ObjectCharacteristicValueSpecification * StringArrayCharacteristicValueSpecification * StringCharacteristicValueSpecification
configurable	A Boolean. If true, the Boolean indicates that the target Characteristic is configurable.
description	A String. A narrative that explains the CharacteristicSpecification.
extensible	A Boolean. An indicator that specifies that the values for the characteristic can be extended by adding new values when instantiating a characteristic for a resource.
id	A String. Unique ID for the characteristic.
isUnique	A Boolean. Specifies if the value of this characteristic is unique across all entities instantiated from the specification that uses this characteristic. For example, consider a ProductSpecification for a set-top box, with a CharacteristicSpecification cardID. Each set-top box must have a different value for cardID, so this isUnique attribute would be set to true for the characteristic.
maxCardinality	An Integer. The maximum number of instances a CharacteristicValue can take on. For example, zero to five phone numbers in a group calling plan, where five is the value for the maxCardinality.

minCardinality	An Integer. The minimum number of instances a CharacteristicValue can take on. For example, zero to five phone numbers in a group calling plan, where zero is the value for the minCardinality.
name	A String. A word, term, or phrase by which this characteristic specification is known and distinguished from other characteristic specifications.
regex	A String. A rule or principle represented in regular expression used to derive the value of a characteristic value.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
valueType	A String. A kind of value that the characteristic can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
@valueSchemaLocation	A String. This (optional) field provides a link to the schema describing the value type.

CharacteristicSpecificationRelationship sub-resource fields

characteristicSpecificationId	A String. Unique identifier of the characteristic within the specification.
name	A String. Name of the target characteristic within the specification.
parentSpecificationHref	A Uri. Hyperlink reference to the parent specification containing the target characteristic.
parentSpecificationId	A String. Unique identifier of the parent specification containing the target characteristic.
relationshipType	A String. Type of relationship such as aggregation, migration, substitution, dependency, exclusivity.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
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rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
	CharacteristicValueSpecification can be instantiated as * BooleanArrayCharacteristicValueSpecification * BooleanCharacteristicValueSpecification * FloatArrayCharacteristicValueSpecification * FloatCharacteristicValueSpecification * IntegerArrayCharacteristicValueSpecification * IntegerCharacteristicValueSpecification * MapArrayCharacteristicValueSpecification * MapCharacteristicValueSpecification * NumberArrayCharacteristicValueSpecification * NumberCharacteristicValueSpecification * ObjectArrayCharacteristicValueSpecification * ObjectCharacteristicValueSpecification * StringArrayCharacteristicValueSpecification * StringCharacteristicValueSpecification
value	This property is present in subclasses

IntegerArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.

unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An Integer.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Boolean. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
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MapCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

value	A Number. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ObjectCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

StringArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
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rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FloatArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Float.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.

@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

MapArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.

unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Boolean.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FloatCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Float. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
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IntegerCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An Integer. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

StringCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

value	A String. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ObjectArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Collection of characteristic values.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
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rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Number.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Json representation sample(s)

We provide below a JSON representation as example of the 'PermissionSpecification' resource object.

```
{
  "@type": "PermissionSpecification",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
  "id": "ps-7e0a2d18",
  "name": "ProductOrder:grantAlteration",
  "function": "ProductOrder",
  "action": "grantAlteration",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "reductionPercentage",
      "valueType": "number",
      "characteristicValueSpecification": [
        {
          "@type": "FloatCharacteristicValueSpecification",
          "valueType": "number",
          "value": 5.5
        }
      ]
    }
  ]
}
```

```
}

```

CheckPermission resource

The CheckPermission task entity verifies that the security principal in context can carry out the action. If permission is granted, 200 is returned, if denied, 403 is returned. If party role or user is present in input, these are used, otherwise the security principal is deduced from the HTTP Authorization header.

Resource model

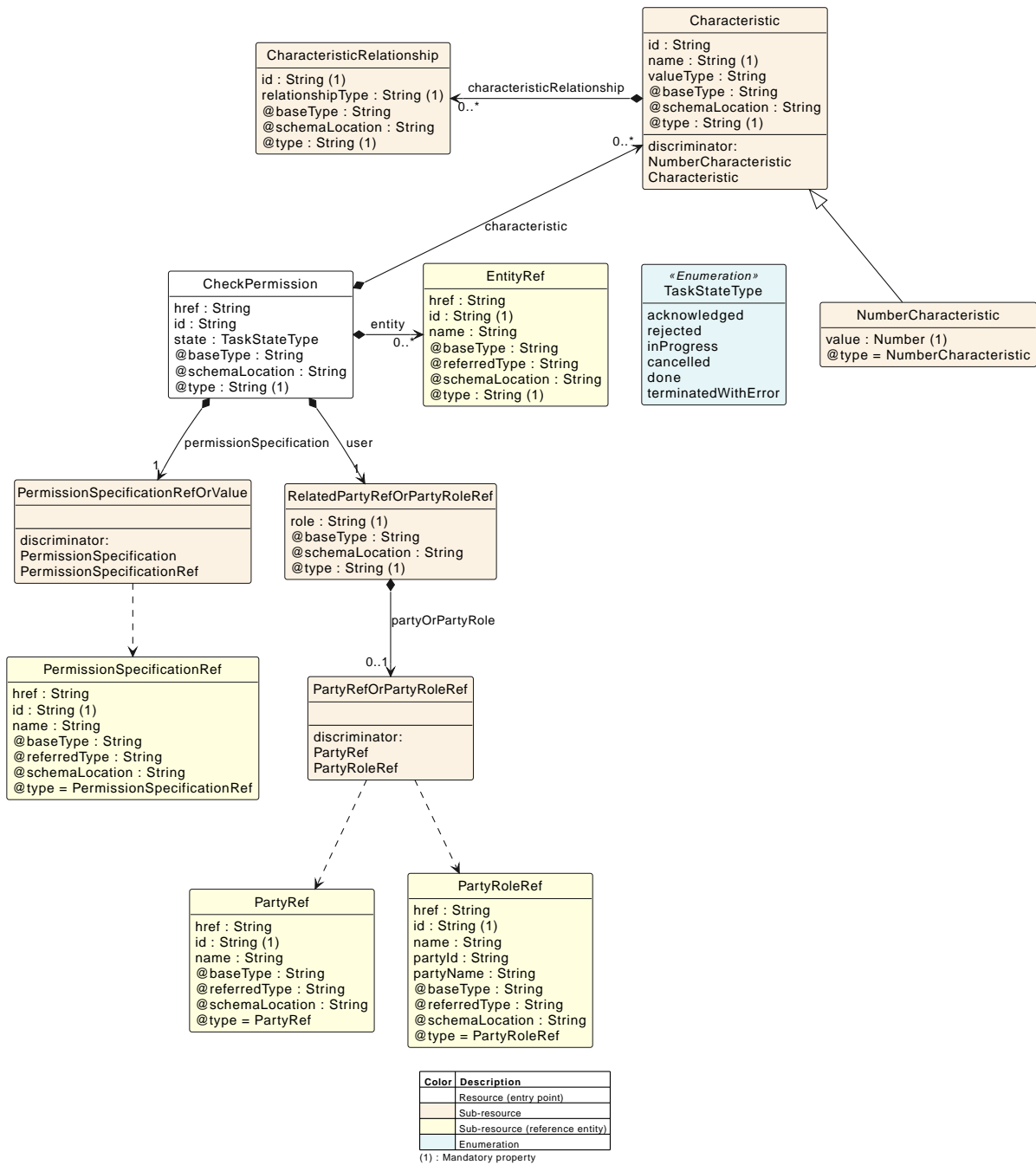


Figure 5 - CheckPermission

Field descriptions

CheckPermission fields

characteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * NumberCharacteristic
entity	An EntityRef. Entity reference schema to be use for all entityRef class.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
permissionSpecification	<p>A PermissionSpecificationRefOrValue. Related Entity reference. A related PermissionSpecification defines a PermissionSpecification described by reference or by value linked to a specific entity. The polymorphic attributes @type, @schemaLocation & @referredType are related to the PermissionSpecification entity and not the PermissionSpecificationRefOrValue class itself.</p>
state	<p>A TaskStateType. Possible values for the state of a task. ENUMERATED with values:</p> <ul style="list-style-type: none"> * acknowledged * rejected * inProgress * cancelled * done * terminatedWithError
user	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PermissionSpecification sub-resource fields

action	A String. Level of access granted as part of the permission, such as read or write.
--------	-------------------------------------------------------------------------------------

description	A String. A fuller description of the permission specification, should describe to a human user what the purpose is of this permission.
function	A String. The function to which the action applies, could be an entity class name, in which case the action defines permission to read or modify these entities. E.g. Read ProductOffering. Alternatively, the function is an agreed string that reflects a specific functionality to which access is controlled, such as giving an ad-hoc price reduction in a product order.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A descriptive name of the permission specification, should summarize to a human user what the purpose is of this permission.
specificationCharacteristic	A CharacteristicSpecification. This class defines a characteristic specification.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PermissionSpecificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Characteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.

@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
	Characteristic can be instantiated as * NumberCharacteristic
value	This property is present in subclasses

NumberCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
value	A Number. Value of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

RelatedPartyRefOrPartyRoleRef sub-resource fields

partyOrPartyRole	A PartyRefOrPartyRoleRef.
role	A String. Role played by the related party or party role in the context of the specific entity it is linked to. Such as 'initiator', 'customer', 'salesAgent', 'user'.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

EntityRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.

@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CharacteristicSpecification sub-resource fields

charSpecRelationship	A CharacteristicSpecificationRelationship. An aggregation, migration, substitution, dependency or exclusivity relationship between/among Characteristic specifications. The specification characteristic is embedded within the specification whose ID and href are in this entity, and identified by its ID.
characteristicValueSpecification	<p>A CharacteristicValueSpecification. Specification of a value (number or text or an object) that can be assigned to a Characteristic. This is an abstract base class, the actual value is in one of the strongly-typed subclasses :</p> <p>BooleanArrayCharacteristicValueSpecification, BooleanCharacteristicValueSpecification, FloatArrayCharacteristicValueSpecification, FloatCharacteristicValueSpecification, IntegerArrayCharacteristicValueSpecification, IntegerCharacteristicValueSpecification, MapArrayCharacteristicValueSpecification, MapCharacteristicValueSpecification, NumberArrayCharacteristicValueSpecification, NumberCharacteristicValueSpecification, ObjectArrayCharacteristicValueSpecification, ObjectCharacteristicValueSpecification, StringArrayCharacteristicValueSpecification, StringCharacteristicValueSpecification...</p> <p>CharacteristicValueSpecification can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristicValueSpecification * BooleanCharacteristicValueSpecification * FloatArrayCharacteristicValueSpecification * FloatCharacteristicValueSpecification * IntegerArrayCharacteristicValueSpecification * IntegerCharacteristicValueSpecification * MapArrayCharacteristicValueSpecification * MapCharacteristicValueSpecification * NumberArrayCharacteristicValueSpecification * NumberCharacteristicValueSpecification * ObjectArrayCharacteristicValueSpecification * ObjectCharacteristicValueSpecification * StringArrayCharacteristicValueSpecification * StringCharacteristicValueSpecification
configurable	A Boolean. If true, the Boolean indicates that the target Characteristic is configurable.
description	A String. A narrative that explains the CharacteristicSpecification.
extensible	A Boolean. An indicator that specifies that the values for the characteristic can be extended by adding new values when instantiating a characteristic for a resource.

id	A String. Unique ID for the characteristic.
isUnique	A Boolean. Specifies if the value of this characteristic is unique across all entities instantiated from the specification that uses this characteristic. For example, consider a ProductSpecification for a set-top box, with a CharacteristicSpecification cardID. Each set-top box must have a different value for cardID, so this isUnique attribute would be set to true for the characteristic.
maxCardinality	An Integer. The maximum number of instances a CharacteristicValue can take on. For example, zero to five phone numbers in a group calling plan, where five is the value for the maxCardinality.
minCardinality	An Integer. The minimum number of instances a CharacteristicValue can take on. For example, zero to five phone numbers in a group calling plan, where zero is the value for the minCardinality.
name	A String. A word, term, or phrase by which this characteristic specification is known and distinguished from other characteristic specifications.
regex	A String. A rule or principle represented in regular expression used to derive the value of a characteristic value.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
valueType	A String. A kind of value that the characteristic can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
@valueSchemaLocation	A String. This (optional) field provides a link to the schema describing the value type.

CharacteristicSpecificationRelationship sub-resource fields

characteristicSpecificationId	A String. Unique identifier of the characteristic within the specification.
name	A String. Name of the target characteristic within the specification.
parentSpecificationHref	A Uri. Hyperlink reference to the parent specification containing the target characteristic.
parentSpecificationId	A String. Unique identifier of the parent specification containing the target characteristic.
relationshipType	A String. Type of relationship such as aggregation, migration, substitution, dependency, exclusivity.

validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

	<p>CharacteristicValueSpecification can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristicValueSpecification * BooleanCharacteristicValueSpecification * FloatArrayCharacteristicValueSpecification * FloatCharacteristicValueSpecification * IntegerArrayCharacteristicValueSpecification * IntegerCharacteristicValueSpecification * MapArrayCharacteristicValueSpecification * MapCharacteristicValueSpecification * NumberArrayCharacteristicValueSpecification * NumberCharacteristicValueSpecification * ObjectArrayCharacteristicValueSpecification * ObjectCharacteristicValueSpecification * StringArrayCharacteristicValueSpecification * StringCharacteristicValueSpecification
value	This property is present in subclasses

IntegerArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An Integer.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Boolean. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

MapCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.

valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Number. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ObjectCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.

unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

StringArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
-------	--------------------------------------------------------------------------

FloatArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Float.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

MapArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

value	An object.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Boolean.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FloatCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
-----------	---------------------------------------------------------------------------------------------------

rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Float. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

IntegerCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An Integer. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.

@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

StringCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String. Value of the characteristic.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ObjectArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.

unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	An object. Collection of characteristic values.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberArrayCharacteristicValueSpecification sub-resource fields

isDefault	A Boolean. If true, the Boolean Indicates if the value is the default value for a characteristic.
rangeInterval	A String. An indicator that specifies the inclusion or exclusion of the valueFrom and valueTo attributes. If applicable, possible values are "open", "closed", "closedBottom" and "closedTop".
regex	A String. A regular expression constraint for given value.
unitOfMeasure	A String. A length, surface, volume, dry measure, liquid measure, money, weight, time, and the like. In general, a determinate quantity or magnitude of the kind designated, taken as a standard of comparison for others of the same kind, in assigning to them numerical values, as 1 foot, 1 yard, 1 mile, 1 square foot.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A Number.
valueFrom	An Integer. The low range value that a characteristic can take on.
valueTo	An Integer. The upper range value that a characteristic can take on.
valueType	A String. A kind of value that the characteristic value can take on, such as numeric, text and so forth.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
-------	--------------------------------------------------------------------------

CharacteristicRelationship sub-resource fields

id	A String. Unique identifier of the characteristic.
relationshipType	A String. The type of relationship.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PartyRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PartyRoleRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
partyId	A String. The identifier of the engaged party that is linked to the PartyRole object.
partyName	A String. The name of the engaged party that is linked to the PartyRole object.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Json representation sample(s)

We provide below a JSON representation as example of the 'CheckPermission' resource object.

```
{
  "id": "32434646753180",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/checkPermission/32434646753180"
  ,
  "@type": "CheckPermission",
  "state": "done",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "function": "ProductOffering",
    "action": "create"
  },
  "user": {
    "role": "ProductManager",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRef",
      "@referredType": "PartyRole"
    }
  }
}
```

Notification Resource Models

11 notifications are defined for this API.

Notifications related to PermissionSet:

- Create Event
- Delete Event
- Attribute Value Change Event

Notifications related to PermissionSpecificationSet:

- Create Event
- Delete Event
- Attribute Value Change Event

Notifications related to PermissionSpecification:

- Create Event
- Delete Event
- Attribute Value Change Event

Notifications related to CheckPermission:

- Create Event
- State Change Event

The notification structure for all notifications in this API follow the pattern depicted by the figure below. A notification event resource (depicted by "SpecificEvent" placeholder) is a subclass of a generic Event structure containing at least an id of the event occurrence (eventId), an event timestamp (eventTime), and the name of the resource (eventType). This notification structure owns an event payload structure ("SpecificEventPayload" placeholder) linked to the resource concerned by the notification using the resource name as access field ("resourceName" placeholder).

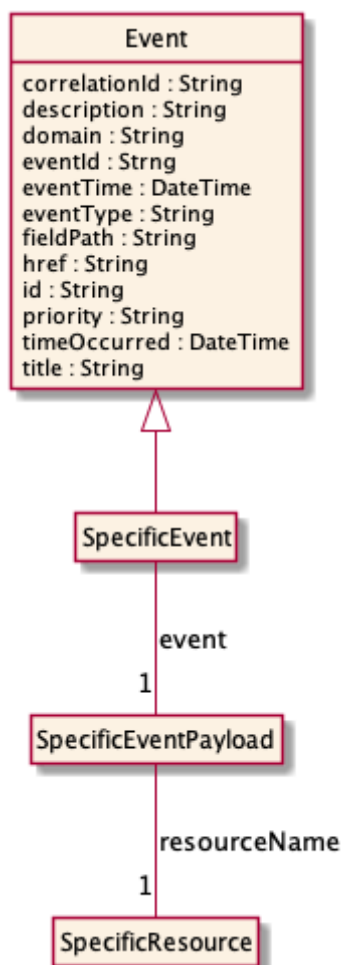


Figure 6 Notification Pattern

PermissionSet

Create Event

Message example for PermissionSetCreateEvent event

```

Content-Type: application/json

{
  "correlationId": "126-54f",
  "description": "PermissionSetCreateEvent illustration",
  ...
}
  
```



```

    "domain": "Infrastructure",
    "eventId": "125",
    "eventTime": "2021-09-27T07:43:59.059Z",
    "eventType": "PermissionSetCreateEvent",
    "priority": "1",
    "timeOccurred": "2021-09-27T07:43:59.059Z",
    "title": "PermissionSetCreateEvent",
    "event": {
      "permissionSet": {
        "@type": "PermissionSet",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
        "id": "Prms-jnzgh456",
        "creationDate": "2019-10-01T00:00:00.000Z",
        "description": "superProfile Granted for user",
        "validFor": {
          "startDateTime": "2019-10-01T00:00:00.000Z",
          "endDateTime": "2019-10-31T23:59:59.000Z"
        },
        "granter": {
          "role": "customer advisor",
          "@type": "RelatedPartyRefOrPartyRoleRef",
          "partyOrPartyRole": {
            "href": "https://serverRoot/partyManagement/v5/party/cclt-
456745",
            "id": "cclt-456745",
            "name": "Joan Smith",
            "@type": "PartyRef",
            "@referredType": "Individual"
          }
        },
        "user": {
          "role": "client",
          "@type": "RelatedPartyRefOrPartyRoleRef",
          "partyOrPartyRole": {
            "id": "cust-745712-A",
            "href": "https://serverRoot/partyManagement/v5/party/cust-
745712-A",
            "name": "Jack Marshall",
            "@type": "PartyRef",
            "@referredType": "Individual"
          }
        },
        "permission": [
          {
            "@type": "Permission",
            "permissionSpecification": {
              "@type": "PermissionSpecification",
              "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
31d5b770",
              "id": "ps-31d5b770",
              "name": "ProductOrder:update",
              "function": "ProductOrder",
              "action": "update"
            },
            "managedAssetGroup": {
              "@type": "FilterAssetGroup",
              "@baseType": "AssetGroup",
              "entityType": "ProductOrder",
              "filter":
"relatedParty.id=\cid3366116688\&relatedParty.@referredType=\Customer\"

```

```

    }
  ]
}
},
"reportingSystem": {
  "id": "123",
  "name": "CRM app",
  "@type": "ReportingResource",
  "@referredType": "LogicalResource"
},
"source": {
  "id": "123",
  "name": "CRM app",
  "@type": "ReportingResource",
  "@referredType": "LogicalResource"
},
"@baseType": "Event",
"@type": "PermissionSetCreateEvent"
}

```

Delete Event

Message example for PermissionSetDeleteEvent event

```

Content-Type: application/json

{
  "correlationId": "145d-8hh",
  "description": "PermissionSetDeleteEvent illustration",
  "domain": "Commercial",
  "eventId": "523",
  "eventTime": "2021-09-27T07:43:59.059Z",
  "eventType": "PermissionSetDeleteEvent",
  "priority": "3",
  "timeOccurred": "2021-09-27T07:43:59.059Z",
  "title": "PermissionSetDeleteEvent",
  "event": {
    "permissionSet": {
      "@type": "PermissionSet",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
      "id": "Prms-jnzgh456"
    }
  },
  "reportingSystem": {
    "id": "123",
    "name": "IDM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "123",
    "name": "IDM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "PermissionSetDeleteEvent"
}

```

Attribute Value Change Event

Message example for AttributeValueChangeEvent event

```
Content-Type: application/json

{
  "correlationId": "333-fd6",
  "description": "PermissionSetAttributeValueChangeEvent illustration",
  "domain": "Commercial",
  "eventId": "569",
  "eventTime": "2021-09-27T07:43:59.059Z",
  "eventType": "PermissionSetAttributeValueChangeEvent",
  "priority": "1",
  "timeOccurred": "2021-09-27T07:43:59.059Z",
  "title": "PermissionSetAttributeValueChangeEvent",
  "event": {
    "permissionSet": {
      "@type": "PermissionSet",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-31d5b770",
      "id": "Prms-31d5b770",
      "validFor": {
        "startDateTime": "2020-10-01T00:00:00.000Z",
        "endDateTime": "2020-10-31T23:59:59.000Z"
      }
    }
  },
  "reportingSystem": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "PermissionSetAttributeValueChangeEvent"
}
```

PermissionSpecificationSet

Create Event

Message example for PermissionSpecificationSetCreateEvent event

```
Content-Type: application/json

{
  "correlationId": "126-54f",
  "description": "PermissionSpecificationSetCreateEvent illustration",
  "domain": "Commercial",
  "eventId": "125",
  "eventTime": "2021-09-27T07:43:59.059Z",
```

```

    "eventType": "PermissionSpecificationSetCreateEvent",
    "priority": "1",
    "timeOccurred": "2021-09-27T07:43:59.059Z",
    "title": "PermissionSpecificationSetCreateEvent",
    "event": {
      "permissionSpecificationSet": {
        "@type": "PermissionSpecificationSet",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-8fla5628",
        "id": "pss-8fla5628",
        "name": "Customer.OTT.Primary.User",
        "involvementRole": "Customer.OTT.Primary.User",
        "permissionSpecification": [
          {
            "@type": "PermissionSpecification",
            "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-a99c47c6",
            "id": "ps-a99c47c6",
            "description": "Permission to manage users and to add or remove
permissions to delegated users.",
            "name": "usermanagement:readwrite",
            "function": "user_management",
            "action": "ReadWrite"
          },
          {
            "@type": "PermissionSpecification",
            "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-5ea0f3cc",
            "id": "ps-5ea0f3cc",
            "description": "Permission to buy products in OTT apps.",
            "name": "impulsebuy:enabled",
            "function": "impulse_buy",
            "action": "Enabled"
          },
          {
            "@type": "PermissionSpecification",
            "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-b4b3601a",
            "id": "ps-b4b3601a",
            "description": "Permission to manage delegated users parental
controls.",
            "name": "parentalcontrols:manage",
            "function": "manage_parental_controls",
            "action": "ReadWrite"
          }
        ]
      }
    },
    "reportingSystem": {
      "id": "123",
      "name": "CRM app",
      "@type": "ReportingResource",
      "@referredType": "LogicalResource"
    },
    "source": {
      "id": "123",
      "name": "CRM app",
      "@type": "ReportingResource",
      "@referredType": "LogicalResource"
    }
  }
}

```

```

    },
    "@baseType": "Event",
    "@type": "PermissionSpecificationSetCreateEvent"
  }

```

Delete Event

Message example for PermissionSpecificationSetDeleteEvent event

```

Content-Type: application/json

{
  "correlationId": "145d-8hh",
  "description": "PermissionSpecificationSetDeleteEvent illustration",
  "domain": "Commercial",
  "eventId": "523",
  "eventTime": "2021-09-27T07:43:59.059Z",
  "eventType": "PermissionSpecificationSetDeleteEvent",
  "priority": "3",
  "timeOccurred": "2021-09-27T07:43:59.059Z",
  "title": "PermissionSpecificationSetDeleteEvent",
  "event": {
    "permissionSpecificationSet": {
      "@type": "PermissionSpecificationSet",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
ebe41def",
      "id": "pss-ebe41def"
    }
  },
  "reportingSystem": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "PermissionSpecificationSetDeleteEvent"
}

```

Attribute Value Change Event

Message example for AttributeValueChangeEvent event

```

Content-Type: application/json

{
  "correlationId": "akj-566",
  "description": "PermissionSpecificationSetAttributeValueChangeEvent
illustration",
  "domain": "Commercial",

```

```

    "eventId": "741",
    "eventTime": "2021-09-27T07:43:59.059Z",
    "eventType": "PermissionSpecificationSetAttributeValueChangeEvent",
    "priority": "1",
    "timeOccurred": "2021-09-27T07:43:59.059Z",
    "title": "PermissionSpecificationSetAttributeValueChangeEvent",
    "event": {
      "permissionSpecificationSet": {
        "@type": "PermissionSpecificationSet",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/413920",
        "id": "413920",
        "involvementRole": "MyTV SPORT+ familyAdmin Profile",
        "name": "TV Sport and Family Admin",
        "description": "Gives permissions to use Sport Channels and manage the
family"
      }
    },
    "reportingSystem": {
      "id": "123",
      "name": "CRM app",
      "@type": "ReportingResource",
      "@referredType": "LogicalResource"
    },
    "source": {
      "id": "123",
      "name": "CRM app",
      "@type": "ReportingResource",
      "@referredType": "LogicalResource"
    },
    "@baseType": "Event",
    "@type": "PermissionSpecificationSetAttributeValueChangeEvent"
  }
}

```

PermissionSpecification

Create Event

Message example for PermissionSpecificationCreateEvent event

```

Content-Type: application/json

{
  "correlationId": "126-54f",
  "description": "PermissionSpecificationCreateEvent illustration",
  "domain": "Commercial",
  "eventId": "125",
  "eventTime": "2021-09-27T07:43:59.059Z",
  "eventType": "PermissionSpecificationCreateEvent",
  "priority": "1",
  "timeOccurred": "2021-09-27T07:43:59.059Z",
  "title": "PermissionSpecificationCreateEvent",
  "event": {
    "permissionSpecification": {
      "@type": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
    }
  }
}

```

```

    "id": "ps-7e0a2d18",
    "function": "ProductOrder",
    "action": "grantAlteration",
    "name": "Allow adhoc price alteration",
    "specificationCharacteristic": [
      {
        "@type": "CharacteristicSpecification",
        "name": "reductionPercentage",
        "valueType": "number",
        "characteristicValueSpecification": [
          {
            "@type": "FloatCharacteristicValueSpecification",
            "valueType": "number",
            "value": 5.5
          }
        ]
      }
    ]
  },
  "reportingSystem": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "PermissionSpecificationCreateEvent"
}

```

Delete Event

Message example for PermissionSpecificationDeleteEvent event

```

Content-Type: application/json

{
  "correlationId": "145d-8hh",
  "description": "PermissionSpecificationDeleteEvent illustration",
  "domain": "Commercial",
  "eventId": "523",
  "eventTime": "2021-09-27T07:43:59.059Z",
  "eventType": "PermissionSpecificationDeleteEvent",
  "priority": "3",
  "timeOccurred": "2021-09-27T07:43:59.059Z",
  "title": "PermissionSpecificationDeleteEvent",
  "event": {
    "permissionSpecification": {
      "@type": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
      "id": "ps-7e0a2d18"
    }
  }
}

```

```

    },
    "reportingSystem": {
      "id": "123",
      "name": "CRM app",
      "@type": "ReportingResource",
      "@referredType": "LogicalResource"
    },
    "source": {
      "id": "123",
      "name": "CRM app",
      "@type": "ReportingResource",
      "@referredType": "LogicalResource"
    },
    "@baseType": "Event",
    "@type": "PermissionSpecificationDeleteEvent"
  }
}

```

Attribute Value Change Event

Message example for AttributeValueChangeEvent event

```

Content-Type: application/json

{
  "correlationId": "akj-566",
  "description": "PermissionSpecificationAttributeValueChangeEvent illustration",
  "domain": "Commercial",
  "eventId": "741",
  "eventTime": "2021-09-27T07:43:59.059Z",
  "eventType": "PermissionSpecificationAttributeValueChangeEvent",
  "priority": "1",
  "timeOccurred": "2021-09-27T07:43:59.059Z",
  "title": "PermissionSpecificationAttributeValueChangeEvent",
  "event": {
    "permissionSpecification": {
      "@type": "PermissionSpecification",
      "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
      "id": "ps-7e0a2d18",
      "specificationCharacteristic": [
        {
          "@type": "CharacteristicSpecification",
          "name": "reductionPercentage",
          "valueType": "number",
          "characteristicValueSpecification": [
            {
              "@type": "FloatCharacteristicValueSpecification",
              "valueType": "number",
              "value": 5.5
            }
          ]
        }
      ]
    }
  },
  "reportingSystem": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",

```



```

    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "PermissionSpecificationAttributeValueChangeEvent"
}

```

CheckPermission

Create Event

Message example for CheckPermissionCreateEvent event

```

Content-Type: application/json

{
  "correlationId": "0f874cb9-c70d",
  "description": "CheckPermissionCreateEvent illustration",
  "domain": "Commercial",
  "eventId": "41cf-ad81-d65ealc2840c",
  "eventTime": "2022-08-25T12:18:12.191Z",
  "eventType": "CheckPermissionCreateEvent",
  "priority": "5",
  "timeOccurred": "2022-08-25T12:18:08.202Z",
  "title": "CheckPermissionCreateEvent",
  "event": {
    "checkPermission": {
      "id": "f3fc707ae9ce42fbbf273a46ccacdeca",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/checkPermission/f3fc707ae9ce42fbbf273a46ccacdeca",
      "@type": "CheckPermission",
      "state": "InProgress",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "name": "ProductOffering::create",
        "function": "ProductOffering",
        "action": "create"
      },
      "user": {
        "role": "ProductManager",
        "@type": "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole": {
          "id": "Jonathan.Goldberg",
          "@type": "PartyRoleRef",
          "@referredType": "PartyRole"
        }
      }
    }
  },
  "reportingSystem": {
    "id": "759",
    "name": "APP-745",
    "@type": "ReportingResource",

```

```

    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "705",
    "name": "APP-317",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "CheckPermissionCreateEvent"
}

```

State Change Event

Message example for StateChangeEvent event

Content-Type: application/json

```

{
  "correlationId": "0f874cb9-c70d",
  "description": "CheckPermissionStateChangeEvent illustration",
  "domain": "Commercial",
  "eventId": "41cf-ad81-d65ealc2840c",
  "eventTime": "2022-08-25T12:18:12.191Z",
  "eventType": "CheckPermissionStateChangeEvent",
  "priority": "5",
  "timeOccurred": "2022-08-25T12:18:08.202Z",
  "title": "CheckPermissionStateChangeEvent",
  "event": {
    "checkPermission": {
      "id": "32434646753180",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/checkPermission/32434646753180"
    },
    "@type": "CheckPermission",
    "state": "done"
  }
},
  "reportingSystem": {
    "id": "759",
    "name": "APP-745",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "705",
    "name": "APP-317",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "CheckPermissionStateChangeEvent"
}

```

API OPERATIONS

Remember the following Uniform Contract:

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
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.

Operations on PermissionSet

Retrieves a PermissionSet by ID

GET /permissionSet/{id}?fields=...

Description

This operation retrieves a PermissionSet entity. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

Retrieve a permission set by its identifier, showing how permission on order is limited to orders owned by a specific customer, using JSONPath filter

Request

```
GET /permissionSet/Prms-jnzgh456
Content-Type: application/json
```

Response

200

```

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
  "id": "Prms-jnzgh456",
  "creationDate": "2019-10-01T00:00:00.000Z",
  "description": "superProfile Granted for user",
  "validFor": {
    "startDateTime": "2019-10-01T00:00:00.000Z",
    "endDateTime": "2019-10-31T23:59:59.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-31d5b770",
        "id": "ps-31d5b770",
        "name": "ProductOrder:update",
        "function": "ProductOrder",
        "action": "update"
      },
      "managedAssetGroup": {
        "@baseType": "AssetGroup",
        "@type": "JSONPathAssetGroup",
        "entityType": "ProductOrder",
        "jsonPath": "filter=productSpecification=='tv-channel'&&productCharacteristic[?(@.name=='tvrating' && @.value=='children')]"
      }
    }
  ]
}

```

Retrieve a permission set by its identifier, showing simple permission for access to IPTV for

the user

Request

```
GET /permissionSet/Prms-31d5b770
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-31d5b770",
  "id": "Prms-31d5b770",
  "creationDate": "2019-10-01T00:00:00.000Z",
  "validFor": {
    "startDateTime": "2019-10-01T00:00:00.000Z",
    "endDateTime": "2019-10-31T23:59:59.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-b2e2fa58",
        "id": "ps-b2e2fa58",
        "name": "IPTVaccess:enabled",
        "function": "IPTV access",
        "action": "enabled"
      }
    }
  ]
}
```

Retrieve a permission set by its identifier, showing how permissions are applied to a specific list of entities

Request

```
GET /permissionSet/63116b98
```

Content-Type: application/json

Response

200

```
{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permission/Prms-63116b98",
  "id": "63116b98",
  "creationDate": "2023-03-01T16:49:00.000Z",
  "description": "Owner profile granted to user automatically for its owned customer, product and service entities.",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "@type": "EntityRef",
            "href": "https://serverRoot/customerManagement/v5/customer/C123456789",
            "id": "C123456789",
            "@referredType": "Customer"
          },
          {
            "@type": "EntityRef",
            "href": "https://serverRoot/customerManagement/v5/customer/5.99999.99.99.999999",
            "id": "5.99999.99.99.999999",
            "@referredType": "Customer"
          },
          {
            "@type": "EntityRef",
            "href": "https://serverRoot/serviceInventory/v5/service/S123456789",
            "id": "S123456789",
            "@referredType": "Service"
          },
          {
            "@type": "EntityRef",
            "href": "https://serverRoot/productInventory/v5/service/1-44up07",
            "id": "1-44up07",
            "@referredType": "Product"
          }
        ]
      }
    }
  ]
}
```

```

    }
  ],
  "permissionSpecificationSet": {
    "@type": "PermissionSpecificationSetRef",
    "@referredType": "PermissionSpecificationSet",
    "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-5de89f4f",
    "id": "pss-5de89f4f"
  }
}
]
}

```

Retrieve a permission set by its identifier, showing multiple permissions with different types of asset specifications

Request

```

GET /permissionSet/7a0cb197
Content-Type: application/json

```

Response

```

200

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permission/Prms-7a0cb197",
  "id": "7a0cb197",
  "creationDate": "2023-03-01T16:49:00.000Z",
  "description": "Customer selfcare admin profile granted by owner to delegate management of customers, products and services entities.",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "p7654321",
      "href": "https://host:port/partyManagement/v5/party/p7654321",
      "name": "Lynda Owens",

```

```

    "@type": "PartyRef",
    "@referredType": "Individual"
  },
  {
    "permission": [
      {
        "@type": "Permission",
        "managedAssetGroup": {
          "@type": "JSONPathAssetGroup",
          "@baseType": "AssetGroup",
          "entityType": "Customer",
          "jsonPath": "${status=='Active'}"
        },
        "permissionSpecificationSet": {
          "@type": "PermissionSpecificationSetRef",
          "@referredType": "PermissionSpecificationSet",
          "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
          "id": "pss-edd9d8a4"
        }
      },
      {
        "@type": "Permission",
        "managedAssetGroup": {
          "@type": "ListAssetGroup",
          "@baseType": "AssetGroup",
          "entity": [
            {
              "@type": "EntityRef",
              "href":
"https://serverRoot/customerManagement/v5/customer/5.99999.99.99.999999",
              "id": "5.99999.99.99.999999",
              "@referredType": "Customer"
            }
          ]
        },
        "permissionSpecificationSet": {
          "@type": "PermissionSpecificationSetRef",
          "@referredType": "PermissionSpecificationSet",
          "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
          "id": "pss-edd9d8a4"
        }
      },
      {
        "@type": "Permission",
        "managedAssetGroup": {
          "@type": "ListAssetGroup",
          "@baseType": "AssetGroup",
          "entity": [
            {
              "@type": "EntityRef",
              "href": "https://serverRoot/productInventory/v5/service/1-44up07",
              "id": "1-44up07",
              "@referredType": "Product"
            }
          ]
        },
        "permissionSpecificationSet": {
          "@type": "PermissionSpecificationSetRef",
          "@referredType": "PermissionSpecificationSet",

```



```

    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
    edd9d8a4",
    "id": "pss-edd9d8a4"
  }
},
{
  "@type": "Permission",
  "managedAssetGroup": {
    "@type": "ListAssetGroup",
    "@baseType": "AssetGroup",
    "entity": [
      {
        "@type": "EntityRef",
        "href": "https://serverRoot/serviceInventory/v5/service/S123456789",
        "id": "S123456789",
        "@referredType": "Service"
      }
    ]
  },
  "permissionSpecificationSet": {
    "@type": "PermissionSpecificationSetRef",
    "@referredType": "PermissionSpecificationSet",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
    edd9d8a4",
    "id": "pss-edd9d8a4"
  }
}
]
}

```

Retrieve a permission set by its identifier, showing multiple permissions with different types of asset specifications

Request

```

GET /permissionSet/7a0cb197-381a-4043-9cd6-aaef3729589f
Content-Type: application/json

```

Response

```

200

{
  "@type": "PermissionSet",
  "href": "https://server:port/userRolePermission/v5/permissionSet/7a0cb197-381a-
  4043-9cd6-aaef3729589f",
  "id": "7a0cb197-381a-4043-9cd6-aaef3729589f",
  "creationDate": "2023-03-01T16:49:00.000Z",
  "description": "Customer OTT primary user profile granted by owner",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "client",

```

```

    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "id": "S123456789",
            "@type": "EntityRef",
            "@referredType": "ServiceAccount"
          }
        ]
      },
      "permissionSpecificationSet": {
        "@type": "PermissionSpecificationSetRef",
        "href":
"https://server:port/userRolePermission/v5/permissionSpecificationSet/adf0487a-1671-49c1-9bel-87e66a6d3a69",
        "id": "adf0487a-1671-49c1-9bel-87e66a6d3a69",
        "@referredType": "PermissionSpecificationSet"
      }
    }
  ]
}

```

List or find PermissionSet objects

GET /permissionSet?fields=...

Description

This operation list PermissionSet entities. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

Retrieve a list of permission sets

Request

```
GET /permissionSet
Content-Type: application/json
```

Response

```
200

[
  {
    "@type": "PermissionSet",
    "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
    "id": "Prms-jnzgh456",
    "creationDate": "2019-10-01T00:00:00.000Z",
    "description": "superProfile Granted for user",
    "validFor": {
      "startDateTime": "2019-10-01T00:00:00.000Z",
      "endDateTime": "2019-10-31T23:59:59.000Z"
    },
    "user": {
      "role": "client",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "id": "cust-745712-A",
        "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
        "name": "Jack Marshall",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    },
    "granter": {
      "role": "customer advisor",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "id": "cclt-456745",
        "href": "https://host:port/partyManagement/v5/party/cclt-456745",
        "name": "John Baker",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    },
    "permission": [
      {
        "@type": "Permission",
        "permissionSpecification": {
          "@type": "PermissionSpecification",
          "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-31d5b770",
          "id": "ps-31d5b770",
          "name": "ProductOrder:update",
          "function": "ProductOrder",
          "action": "update"
        },
        "managedAssetGroup": {
          "@baseType": "AssetGroup",
          "@type": "JSONPathAssetGroup",

```

```

        "entityType": "ProductOrder",
        "jsonPath": "filter=productSpecification=='tv-
channel'&&productCharacteristic[?(@.name=='tvrating' && @.value=='children')]"
    }
}
],
{
    "@type": "PermissionSet",
    "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-
31d5b770",
    "id": "Prms-31d5b770",
    "creationDate": "2019-10-01T00:00:00.000Z",
    "validFor": {
        "startDateTime": "2019-10-01T00:00:00.000Z",
        "endDateTime": "2019-10-31T23:59:59.000Z"
    },
    "user": {
        "role": "client",
        "@type": "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole": {
            "id": "cust-745712-A",
            "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
            "name": "Jack Marshall",
            "@type": "PartyRef",
            "@referredType": "Individual"
        }
    },
    "permission": [
        {
            "@type": "Permission",
            "permissionSpecification": {
                "@type": "PermissionSpecification",
                "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
b2e2fa58",
                "id": "ps-b2e2fa58",
                "name": "IPTVaccess:enabled",
                "function": "IPTV access",
                "action": "enabled"
            }
        }
    ],
},
{
    "@type": "PermissionSet",
    "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permission/Prms-
63116b98",
    "id": "63116b98",
    "creationDate": "2023-03-01T16:49:00.000Z",
    "description": "Owner profile granted to user automatically for its owned
customer, product and service entities.",
    "validFor": {
        "startDateTime": "2023-03-01T00:00:00.000Z",
        "endDateTime": "2023-04-01T00:00:00.000Z"
    },
    "user": {
        "role": "customer advisor",
        "@type": "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole": {
            "id": "cclt-456745",
            "href": "https://host:port/partyManagement/v5/party/cclt-456745",
            "name": "John Baker",

```

```

    "@type": "PartyRef",
    "@referredType": "Individual"
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "@type": "EntityRef",
            "href":
"https://serverRoot/customerManagement/v5/customer/C123456789",
            "id": "C123456789",
            "@referredType": "Customer"
          },
          {
            "@type": "EntityRef",
            "href":
"https://serverRoot/customerManagement/v5/customer/5.99999.99.99.999999",
            "id": "5.99999.99.99.999999",
            "@referredType": "Customer"
          },
          {
            "@type": "EntityRef",
            "href": "https://serverRoot/serviceInventory/v5/service/S123456789",
            "id": "S123456789",
            "@referredType": "Service"
          },
          {
            "@type": "EntityRef",
            "href": "https://serverRoot/productInventory/v5/service/1-44up07",
            "id": "1-44up07",
            "@referredType": "Product"
          }
        ]
      }
    },
    {
      "permissionSpecificationSet": {
        "@type": "PermissionSpecificationSetRef",
        "@referredType": "PermissionSpecificationSet",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-5de89f4f",
        "id": "pss-5de89f4f"
      }
    }
  ],
  {
    "@type": "PermissionSet",
    "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permission/Prms-7a0cb197",
    "id": "7a0cb197",
    "creationDate": "2023-03-01T16:49:00.000Z",
    "description": "Customer selfcare admin profile granted by owner to delegate management of customers, products and services entities.",
    "validFor": {
      "startDateTime": "2023-03-01T00:00:00.000Z",
      "endDateTime": "2023-04-01T00:00:00.000Z"
    }
  },
  "user": {

```

```

    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "p7654321",
      "href": "https://host:port/partyManagement/v5/party/p7654321",
      "name": "Lynda Owens",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "JSONPathAssetGroup",
        "@baseType": "AssetGroup",
        "entityType": "Customer",
        "jsonPath": "$[status=='Active']"
      },
      "permissionSpecificationSet": {
        "@type": "PermissionSpecificationSetRef",
        "@referredType": "PermissionSpecificationSet",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
        "id": "pss-edd9d8a4"
      }
    },
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "@type": "EntityRef",
            "href":
"https://serverRoot/customerManagement/v5/customer/5.99999.99.99.999999",
            "id": "5.99999.99.99.999999",
            "@referredType": "Customer"
          }
        ]
      },
      "permissionSpecificationSet": {
        "@type": "PermissionSpecificationSetRef",
        "@referredType": "PermissionSpecificationSet",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
        "id": "pss-edd9d8a4"
      }
    }
  ],

```

```

{
  "@type": "Permission",
  "managedAssetGroup": {
    "@type": "ListAssetGroup",
    "@baseType": "AssetGroup",
    "entity": [
      {
        "@type": "EntityRef",
        "href": "https://serverRoot/productInventory/v5/service/1-44up07",
        "id": "1-44up07",
        "@referredType": "Product"
      }
    ]
  },
  "permissionSpecificationSet": {
    "@type": "PermissionSpecificationSetRef",
    "@referredType": "PermissionSpecificationSet",
    "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
    "id": "pss-edd9d8a4"
  }
},
{
  "@type": "Permission",
  "managedAssetGroup": {
    "@type": "ListAssetGroup",
    "@baseType": "AssetGroup",
    "entity": [
      {
        "@type": "EntityRef",
        "href": "https://serverRoot/serviceInventory/v5/service/S123456789",
        "id": "S123456789",
        "@referredType": "Service"
      }
    ]
  },
  "permissionSpecificationSet": {
    "@type": "PermissionSpecificationSetRef",
    "@referredType": "PermissionSpecificationSet",
    "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
    "id": "pss-edd9d8a4"
  }
},
{
  "@type": "PermissionSet",
  "href": "https://server:port/userRolePermission/v5/permissionSet/7a0cb197-381a-
4043-9cd6-aaef3729589f",
  "id": "7a0cb197-381a-4043-9cd6-aaef3729589f",
  "creationDate": "2023-03-01T16:49:00.000Z",
  "description": "Customer OTT primary user profile granted by owner",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {

```

```
    "id": "cust-745712-A",
    "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
    "name": "Jack Marshall",
    "@type": "PartyRef",
    "@referredType": "Individual"
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "id": "S123456789",
            "@type": "EntityRef",
            "@referredType": "ServiceAccount"
          }
        ]
      },
      "permissionSpecificationSet": {
        "@type": "PermissionSpecificationSetRef",
        "href":
"https://server:port/userRolePermission/v5/permissionSpecificationSet/adf0487a-1671-49c1-9be1-87e66a6d3a69",
        "id": "adf0487a-1671-49c1-9be1-87e66a6d3a69",
        "@referredType": "PermissionSpecificationSet"
      }
    }
  ]
}
```

Creates a PermissionSet

POST /permissionSet?fields=...

Description

This operation creates a PermissionSet entity.

Mandatory Attributes

Mandatory Attributes	Rule
permission	



Mandatory Attributes	Rule
permission.@type	
user	
user.@type	
user.role	
@type	

Usage samples

Creation of a new PermissionSet with POST operation

Request

```
POST /permissionSet
Content-Type: application/json

{
  "@type": "PermissionSet",
  "description": "superProfile Granted for user",
  "validFor": {
    "startDateTime": "2019-10-01T00:00:00.000Z",
    "endDateTime": "2019-10-31T23:59:59.000Z"
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "name": "ProductOrder:update",
        "function": "ProductOrder",
        "action": "update"
      },
      "managedAssetGroup": {
        "@type": "FilterAssetGroup",
        "@baseType": "AssetGroup",
        "entityType": "ProductOrder",
        "filter":
```

```

"relatedParty.id=\"cid3366116688\"&relatedParty.@referredType=\"Customer\" "
    }
  }
]
}

```

Response

```

201

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
  "id": "Prms-jnzgh456",
  "creationDate": "2019-10-01T00:00:00.000Z",
  "description": "superProfile Granted for user",
  "validFor": {
    "startDateTime": "2019-10-01T00:00:00.000Z",
    "endDateTime": "2019-10-31T23:59:59.000Z"
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "href": "https://serverRoot/partyManagement/v5/party/cclt-456745",
      "id": "cclt-456745",
      "name": "Joan Smith",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://serverRoot/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-3ld5b770",
        "id": "ps-3ld5b770",
        "name": "ProductOrder:update",
        "function": "ProductOrder",
        "action": "update"
      },
      "managedAssetGroup": {
        "@type": "FilterAssetGroup",
        "@baseType": "AssetGroup",
        "entityType": "ProductOrder",

```

```

    "filter":
    "relatedParty.id=\"cid3366116688\"&relatedParty.@referredType=\"Customer\" "
  }
}
]
}

```

Creation of a new PermissionSet with POST operation

Request

```

POST /permissionSet
Content-Type: application/json

{
  "@type": "PermissionSet",
  "validFor": {
    "startDateTime": "2019-10-01T00:00:00.000Z",
    "endDateTime": "2019-10-31T23:59:59.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "name": "IPITVaccess:enabled",
        "function": "IPTV access",
        "action": "enabled"
      }
    }
  ]
}

```

Response

```

201

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-31d5b770",
  "id": "Prms-31d5b770",
  "creationDate": "2019-10-01T00:00:00.000Z",
  "validFor": {
    "startDateTime": "2019-10-01T00:00:00.000Z",
    "endDateTime": "2019-10-31T23:59:59.000Z"
  }
}

```

```

    },
    "user": {
      "role": "client",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "id": "cust-745712-A",
        "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
        "name": "Jack Marshall",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    },
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
b2e2fa58",
        "id": "ps-b2e2fa58",
        "name": "IPITVaccess:enabled",
        "function": "IPTV access",
        "action": "enabled"
      }
    }
  ]
}

```

Creation of a new PermissionSet with POST operation

Request

```

POST /permissionSet
Content-Type: application/json

{
  "@type": "PermissionSet",
  "description": "Owner profile granted to user automatically for its owned
customer, product and service entities.",
  "validFor": {
    "startTime": "2023-03-01T00:00:00.000Z",
    "endTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "family member",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [

```

```

    {
      "@type": "EntityRef",
      "id": "C123456789",
      "@referredType": "Customer"
    },
    {
      "@type": "EntityRef",
      "id": "5.99999.99.99.999999",
      "@referredType": "Customer"
    },
    {
      "@type": "EntityRef",
      "id": "S123456789",
      "@referredType": "Service"
    },
    {
      "@type": "EntityRef",
      "id": "1-44up07",
      "@referredType": "Product"
    }
  ]
},
"permissionSpecificationSet": {
  "@type": "PermissionSpecificationSetRef",
  "@referredType": "PermissionSpecificationSet",
  "id": "pss-5de89f4f"
}
}
]
}

```

Response

```

201

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permission/Prms-63116b98",
  "id": "63116b98",
  "creationDate": "2023-03-01T16:49:00.000Z",
  "description": "Owner profile granted to user automatically for its owned customer, product and service entities.",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "family member",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {

```

```

    "@type": "Permission",
    "managedAssetGroup": {
      "@type": "ListAssetGroup",
      "@baseType": "AssetGroup",
      "entity": [
        {
          "@type": "EntityRef",
          "href": "https://serverRoot/customerManagement/v5/customer/C123456789",
          "id": "C123456789",
          "@referredType": "Customer"
        },
        {
          "@type": "EntityRef",
          "href":
"https://serverRoot/customerManagement/v5/customer/5.99999.99.99.999999",
          "id": "5.99999.99.99.999999",
          "@referredType": "Customer"
        },
        {
          "@type": "EntityRef",
          "href": "https://serverRoot/serviceInventory/v5/service/S123456789",
          "id": "S123456789",
          "@referredType": "Service"
        },
        {
          "@type": "EntityRef",
          "href": "https://serverRoot/productInventory/v5/service/1-44up07",
          "id": "1-44up07",
          "@referredType": "Product"
        }
      ]
    },
    "permissionSpecificationSet": {
      "@type": "PermissionSpecificationSetRef",
      "@referredType": "PermissionSpecificationSet",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-5de89f4f",
      "id": "pss-5de89f4f"
    }
  }
]
}

```

Creation of a new PermissionSet with POST operation

Request

```

POST /permissionSet
Content-Type: application/json

{
  "@type": "PermissionSet",
  "description": "Customer selfcare admin profile granted by owner to delegate
management of customers, products and services entities.",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {

```

```

    "role": "family member",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "p7654321",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "@type": "EntityRef",
            "id": "C123456789",
            "@referredType": "Customer"
          }
        ]
      }
    },
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "@type": "EntityRef",
            "id": "5.99999.99.99.999999",
            "@referredType": "Customer"
          }
        ]
      }
    },
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "@type": "EntityRef",
            "id": "5.99999.99.99.999999",
            "@referredType": "Customer"
          }
        ]
      }
    }
  ]
}

```

```

        "@type": "EntityRef",
        "id": "1-44up07",
        "@referredType": "Product"
      }
    ]
  },
  "permissionSpecificationSet": {
    "@type": "PermissionSpecificationSetRef",
    "@referredType": "PermissionSpecificationSet",
    "id": "pss-edd9d8a4"
  }
},
{
  "@type": "Permission",
  "managedAssetGroup": {
    "@type": "ListAssetGroup",
    "@baseType": "AssetGroup",
    "entity": [
      {
        "@type": "EntityRef",
        "id": "S123456789",
        "@referredType": "Service"
      }
    ]
  },
  "permissionSpecificationSet": {
    "@type": "PermissionSpecificationSetRef",
    "@referredType": "PermissionSpecificationSet",
    "id": "pss-edd9d8a4"
  }
}
]
}

```

Response

```

201

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permission/Prms-7a0cb197",
  "id": "7a0cb197",
  "creationDate": "2023-03-01T16:49:00.000Z",
  "description": "Customer selfcare admin profile granted by owner to delegate management of customers, products and services entities.",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "family member",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cc1t-456745",
      "href": "https://host:port/partyManagement/v5/party/cc1t-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  }
}

```



```

    },
    "granter": {
      "role": "customer advisor",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "id": "p7654321",
        "href": "https://host:port/partyManagement/v5/party/p7654321",
        "name": "Lynda Owens",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "@type": "EntityRef",
            "href": "https://serverRoot/customerManagement/v5/customer/C123456789",
            "id": "C123456789",
            "@referredType": "Customer"
          }
        ]
      }
    },
    {
      "permissionSpecificationSet": {
        "@type": "PermissionSpecificationSetRef",
        "@referredType": "PermissionSpecificationSet",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
        "id": "pss-edd9d8a4"
      }
    }
  ],
  {
    "@type": "Permission",
    "managedAssetGroup": {
      "@type": "ListAssetGroup",
      "@baseType": "AssetGroup",
      "entity": [
        {
          "@type": "EntityRef",
          "href":
"https://serverRoot/customerManagement/v5/customer/5.99999.99.99.999999",
          "id": "5.99999.99.99.999999",
          "@referredType": "Customer"
        }
      ]
    }
  },
  {
    "permissionSpecificationSet": {
      "@type": "PermissionSpecificationSetRef",
      "@referredType": "PermissionSpecificationSet",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
      "id": "pss-edd9d8a4"
    }
  },
  {
    "@type": "Permission",
    "managedAssetGroup": {

```

```

    "@type": "ListAssetGroup",
    "@baseType": "AssetGroup",
    "entity": [
      {
        "@type": "EntityRef",
        "href": "https://serverRoot/productInventory/v5/service/1-44up07",
        "id": "1-44up07",
        "@referredType": "Product"
      }
    ]
  },
  "permissionSpecificationSet": {
    "@type": "PermissionSpecificationSetRef",
    "@referredType": "PermissionSpecificationSet",
    "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
    "id": "pss-edd9d8a4"
  }
},
{
  "@type": "Permission",
  "managedAssetGroup": {
    "@type": "ListAssetGroup",
    "@baseType": "AssetGroup",
    "entity": [
      {
        "@type": "EntityRef",
        "href": "https://serverRoot/serviceInventory/v5/service/S123456789",
        "id": "S123456789",
        "@referredType": "Service"
      }
    ]
  },
  "permissionSpecificationSet": {
    "@type": "PermissionSpecificationSetRef",
    "@referredType": "PermissionSpecificationSet",
    "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
edd9d8a4",
    "id": "pss-edd9d8a4"
  }
}
]
}

```

Creation of a new PermissionSet with POST operation

Request

```

POST /permissionSet
Content-Type: application/json

{
  "@type": "PermissionSet",
  "description": "Customer OTT primary user profile granted by owner to delegate
primary usage of an OTT service.",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  }
}

```

```

    },
    "user": {
      "role": "family owner",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "id": "cust-745712-A",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    },
    "granter": {
      "role": "customer advisor",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "id": "cclt-456745",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    },
    "permission": [
      {
        "@type": "Permission",
        "managedAssetGroup": {
          "@type": "ListAssetGroup",
          "@baseType": "AssetGroup",
          "entity": [
            {
              "@type": "EntityRef",
              "id": "S123456789",
              "@referredType": "Service"
            }
          ]
        },
        "permissionSpecificationSet": {
          "@type": "PermissionSpecificationSetRef",
          "@referredType": "PermissionSpecificationSet",
          "id": "pss-8fla5628"
        }
      }
    ]
  }
}

```

Response

```

201

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permission/Prms-bdfbeb06",
  "id": "bdfbeb06",
  "creationDate": "2023-03-01T16:49:00.000Z",
  "description": "Customer OTT primary user profile granted by owner to delegate primary usage of an OTT service.",
  "validFor": {
    "startDateTime": "2023-03-01T00:00:00.000Z",
    "endDateTime": "2023-04-01T00:00:00.000Z"
  },
  "user": {
    "role": "family owner",

```

```

    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "managedAssetGroup": {
        "@type": "ListAssetGroup",
        "@baseType": "AssetGroup",
        "entity": [
          {
            "@type": "EntityRef",
            "href": "https://serverRoot/serviceInventory/v5/service/S123456789",
            "id": "S123456789",
            "@referredType": "Service"
          }
        ]
      }
    }
  ],
  "permissionSpecificationSet": {
    "@type": "PermissionSpecificationSetRef",
    "@referredType": "PermissionSpecificationSet",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-8fla5628",
    "id": "pss-8fla5628"
  }
}

```

Updates partially a PermissionSet

PATCH /permissionSet/{id}?fields=...

Description

This operation allows partial updates of a PermissionSet entity. Support of json/merge (<https://tools.ietf.org/html/rfc7396>) is mandatory, support of json/patch (<http://tools.ietf.org/html/rfc5789>) is optional. Note: If the update operation yields to the creation of sub-resources or relationships, the same rules concerning mandatory sub-resource attributes and default value settings in the POST operation applies to the PATCH operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
creationDate	
href	
id	
@baseType	@baseType is immutable
@schemaLocation	@schemaLocation is immutable
@type	@type is immutable

Patchable Attributes	Rule
description	
granter	
permission	
permissionSetSpecification	
user	
validFor	

Usage samples

Example of a request for partial updating a permission set, using JSON Patch.

Request

```
PATCH /permissionSet/Prms-jnzgh456
Content-Type: application/json-patch+json

[
  {
    "op": "replace",
    "path": "/validFor/endTime",
    "value": "2021-11-31T23:59:59.000Z"
  }
]
```

Response

```
200

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
  "id": "Prms-jnzgh456",
  "creationDate": "2019-10-01T00:00:00.000Z",
  "description": "superProfile Granted for user",
  "validFor": {
```

```

    "startDateTime": "2019-10-01T00:00:00.000Z",
    "endDateTime": "2021-10-31T23:59:59.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-31d5b770",
        "id": "ps-31d5b770",
        "function": "ProductOrder",
        "action": "update"
      },
      "managedAssetGroup": {
        "@type": "FilterAssetGroup",
        "@baseType": "AssetGroup",
        "entityType": "ProductOrder",
        "filter":
"relatedParty.id=\"cid3366116688\"&relatedParty.@referredType=\"Customer\""
      }
    }
  ]
}

```

Example of a request for partial updating a permission set, using MERGE Patch.

Request

```

PATCH /permissionSet/Prms-jnzgh456
Content-Type: application/merge-patch+json

{
  "@type": "PermissionSet",
  "validFor": {
    "startDateTime": "2021-10-01T00:00:00.000Z",
    "endDateTime": "2023-10-31T23:59:59.000Z"
  }
}

```

```
}
}
```

Response

```
200

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
  "id": "Prms-jnzgh456",
  "creationDate": "2019-10-01T00:00:00.000Z",
  "description": "superProfile Granted for user",
  "validFor": {
    "startDateTime": "2021-10-01T00:00:00.000Z",
    "endDateTime": "2023-10-31T23:59:59.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-31d5b770",
        "id": "ps-31d5b770",
        "function": "ProductOrder",
        "action": "update"
      },
      "managedAssetGroup": {
        "@type": "FilterAssetGroup",
        "@baseType": "AssetGroup",
        "entityType": "ProductOrder",
        "filter": "relatedParty.id=\"cid3366116688\"&relatedParty.@referredType=\"Customer\""
      }
    }
  ]
}
```

```
]
}
```

Example of a request for fully updating an permission set identity.

Request

```
PATCH /permissionSet/Prms-jnzgh456
Content-Type: application/json

{
  "@type": "PermissionSet",
  "description": "superProfile Granted for user",
  "validFor": {
    "startDateTime": "2021-10-01T00:00:00.000Z",
    "endDateTime": "2023-10-31T23:59:59.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "name": "ProductOrder:update",
        "function": "ProductOrder",
        "action": "update"
      },
      "managedAssetGroup": {
        "@type": "FilterAssetGroup",
        "@baseType": "AssetGroup",
        "entityType": "ProductOrder",
        "filter":
"relatedParty.id=\\\"cid3366116688\\\"&relatedParty.@referredType=\\\"Customer\\\""
      }
    }
  ]
}
```

Response

200

```

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
  "id": "Prms-jnzgh456",
  "creationDate": "2019-10-01T00:00:00.000Z",
  "description": "superProfile Granted for user",
  "validFor": {
    "startDateTime": "2021-10-01T00:00:00.000Z",
    "endDateTime": "2023-10-31T23:59:59.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-31d5b770",
        "id": "ps-31d5b770",
        "function": "ProductOrder",
        "action": "update"
      },
      "managedAssetGroup": {
        "@type": "FilterAssetGroup",
        "@baseType": "AssetGroup",
        "entityType": "ProductOrder",
        "filter": "relatedParty.id=\"cid3366116688\"&relatedParty.@referredType=\"Customer\""
      }
    }
  ]
}

```

Example of a request for partial updating a permission set, using JSON Patch Query.

Request

```
PATCH /permissionSet/413920
Content-Type: application/json-patch-query+json

[
  {
    "op": "remove",
    "path":
"/permission/managedAssetGroup?permission.managedAssetGroup.entityType=ProductOrder"
  }
]
```

Response

```
200

{
  "@type": "PermissionSet",
  "href": "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSet/Prms-jnzgh456",
  "id": "Prms-jnzgh456",
  "creationDate": "2019-10-01T00:00:00.000Z",
  "description": "superProfile Granted for user",
  "validFor": {
    "startDateTime": "2019-10-01T00:00:00.000Z",
    "endDateTime": "2021-10-31T23:59:59.000Z"
  },
  "user": {
    "role": "client",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cust-745712-A",
      "href": "https://host:port/partyManagement/v5/party/cust-745712-A",
      "name": "Jack Marshall",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "granter": {
    "role": "customer advisor",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "cclt-456745",
      "href": "https://host:port/partyManagement/v5/party/cclt-456745",
      "name": "John Baker",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  "permission": [
    {
      "@type": "Permission",
      "permissionSpecification": {
        "@type": "PermissionSpecification",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-31d5b770",
        "id": "ps-31d5b770",

```

```
    "function": "ProductOrder",  
    "action": "update"  
  }  
}  
]  
}
```

Deletes a PermissionSet

DELETE /permissionSet/{id}

Description

This operation deletes a PermissionSet entity.

Usage samples

Here's an example of a request for delete a specific permission set.

Request

```
DELETE /permissionSet/07252355872483  
Content-Type: application/json
```

Response

204

Operations on PermissionSpecificationSet

Retrieves a PermissionSpecificationSet by ID

GET /permissionSpecificationSet/{id}?fields=...

Description

This operation retrieves a PermissionSpecificationSet entity. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

Retrieve a permission specification set by its identifier

Request

```
GET /permissionSpecificationSet/pss-ebe41def  
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecificationSet",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
  ebe41def",
  "id": "pss-ebe41def",
  "involvementRole": "MyTV familyAdmin Profile",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
      5afe52c5",
      "id": "pss-5afe52c5"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
      769ef409",
      "id": "pss-769ef409"
    }
  ]
}
```

Retrieve a permission specification set by its identifier

Request

```
GET /permissionSpecificationSet/pss-5de89f4f
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecificationSet",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
  5de89f4f",
  "id": "pss-5de89f4f",
  "involvementRole": "Owner",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
      9d5692ea",
      "id": "ps-9d5692ea",

```

```
        "name": "all:readwrite",
        "function": "all",
        "action": "ReadWrite"
      }
    ]
  }
}
```

Retrieve a permission specification set by its identifier

Request

```
GET /permissionSpecificationSet/pss-edd9d8a4
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecificationSet",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-edd9d8a4",
  "id": "pss-edd9d8a4",
  "involvementRole": "Customer.Selfcare.Admin",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-dd798b34",
      "id": "ps-dd798b34",
      "description": "Permission to manage users and to add or remove permissions to delegated users.",
      "name": "usermanagement:readwrite",
      "function": "user_management",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-591c77a2",
      "id": "ps-591c77a2",
      "description": "Permission to view and change account data details.",
      "name": "accountdetails:readwrite",
      "function": "account_details",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-9f32c9e0",
      "id": "ps-9f32c9e0",
      "description": "Permission to place request to change holder data.",
      "name": "holderdata:change",

```

```

    "function": "change_holder_data",
    "action": "ReadWrite",
    "specificationCharacteristic": [
      {
        "@type": "CharacteristicSpecification",
        "name": "Macro.Segment",
        "valueType": "string",
        "characteristicValueSpecification": [
          {
            "@type": "StringCharacteristicValueSpecification",
            "valueType": "string",
            "value": "mass_market"
          },
          {
            "@type": "StringCharacteristicValueSpecification",
            "valueType": "string",
            "value": "residential"
          }
        ]
      }
    ]
  }
}

```

Retrieve a permission specification set by its identifier

Request

```

GET /permissionSpecificationSet/pss-8f1a5628
Content-Type: application/json

```

Response

```

200

{
  "@type": "PermissionSpecificationSet",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-8f1a5628",
  "id": "pss-8f1a5628",
  "involvementRole": "Customer.OTT.Primary.User",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-a99c47c6",
      "id": "ps-a99c47c6",
      "description": "Permission to manage users and to add or remove permissions to delegated users.",
      "name": "usermanagement:readwrite",
      "function": "user_management",
      "action": "ReadWrite"
    },
    {

```

```

    "@type": "PermissionSpecification",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
    5ea0f3cc",
    "id": "ps-5ea0f3cc",
    "description": "Permission to buy products in OTT apps.",
    "name": "impulsebuy:enabled",
    "function": "impulse_buy",
    "action": "Enabled"
  },
  {
    "@type": "PermissionSpecification",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
    b4b3601a",
    "id": "ps-b4b3601a",
    "description": "Permission to manage delegated users parental controls.",
    "name": "parentalcontrols:manage",
    "function": "manage_parental_controls",
    "action": "ReadWrite"
  }
]
}

```

List or find PermissionSpecificationSet objects

GET /permissionSpecificationSet?fields=...

Description

This operation list PermissionSpecificationSet entities. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

Retrieve a list of permission specification sets

Request

```

GET /permissionSpecificationSet
Content-Type: application/json

```

Response

```

200

[
  {
    "@type": "PermissionSpecificationSet",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
    ebe41def",
    "id": "pss-ebe41def",
    "involvementRole": "MyTV familyAdmin Profile",

```

```

    "permissionSpecification": [
      {
        "@type": "PermissionSpecificationRef",
        "@referredType": "PermissionSpecification",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-5afe52c5",
        "id": "pss-5afe52c5"
      },
      {
        "@type": "PermissionSpecificationRef",
        "@referredType": "PermissionSpecification",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-769ef409",
        "id": "pss-769ef409"
      }
    ]
  },
  {
    "@type": "PermissionSpecificationSet",
    "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-5de89f4f",
    "id": "pss-5de89f4f",
    "involvementRole": "Owner",
    "permissionSpecification": [
      {
        "@type": "PermissionSpecification",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-9d5692ea",
        "id": "ps-9d5692ea",
        "name": "all:readwrite",
        "function": "all",
        "action": "ReadWrite"
      }
    ]
  },
  {
    "@type": "PermissionSpecificationSet",
    "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-edd9d8a4",
    "id": "pss-edd9d8a4",
    "involvementRole": "Customer.Selfcare.Admin",
    "permissionSpecification": [
      {
        "@type": "PermissionSpecification",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-dd798b34",
        "id": "ps-dd798b34",
        "description": "Permission to manage users and to add or remove permissions to delegated users.",
        "name": "usermanagement:readwrite",
        "function": "user_management",
        "action": "ReadWrite"
      },
      {
        "@type": "PermissionSpecification",
        "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-

```



```

591c77a2",
  "id": "ps-591c77a2",
  "description": "Permission to view and change account data details.",
  "name": "accountdetails:readwrite",
  "function": "account_details",
  "action": "ReadWrite"
},
{
  "@type": "PermissionSpecification",
  "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
9f32c9e0",
  "id": "ps-9f32c9e0",
  "description": "Permission to place request to change holder data.",
  "name": "holderdata:change",
  "function": "change_holder_data",
  "action": "ReadWrite",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "Macro.Segment",
      "valueType": "string",
      "characteristicValueSpecification": [
        {
          "@type": "StringCharacteristicValueSpecification",
          "valueType": "string",
          "value": "mass_market"
        },
        {
          "@type": "StringCharacteristicValueSpecification",
          "valueType": "string",
          "value": "residential"
        }
      ]
    }
  ]
},
{
  "@type": "PermissionSpecificationSet",
  "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-
8f1a5628",
  "id": "pss-8f1a5628",
  "involvementRole": "Customer.OTT.Primary.User",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
a99c47c6",
      "id": "ps-a99c47c6",
      "description": "Permission to manage users and to add or remove permissions
to delegated users.",
      "name": "usermanagement:readwrite",
      "function": "user_management",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-

```

```
5ea0f3cc",
  "id": "ps-5ea0f3cc",
  "description": "Permission to buy products in OTT apps.",
  "name": "impulsebuy:enabled",
  "function": "impulse_buy",
  "action": "Enabled"
},
{
  "@type": "PermissionSpecification",
  "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
b4b3601a",
  "id": "ps-b4b3601a",
  "description": "Permission to manage delegated users parental controls.",
  "name": "parentalcontrols:manage",
  "function": "manage_parental_controls",
  "action": "ReadWrite"
}
]
}
```

Creates a PermissionSpecificationSet

POST /permissionSpecificationSet?fields=...

Description

This operation creates a PermissionSpecificationSet entity.

Mandatory Attributes

Mandatory Attributes	Rule
name	
permissionSpecification	
permissionSpecification.@type	
permissionSpecification.action	
permissionSpecification.function	
permissionSpecification.id	
permissionSpecification.name	
@type	

Usage samples

Creation of a new PermissionSpecificationSet with POST operation

Request

```
POST /permissionSpecificationSet
Content-Type: application/json
```

```
{
  "@type": "PermissionSpecificationSet",
  "name": "Customer.OTT.Primary.User",
  "involvementRole": "Customer.OTT.Primary.User",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecification",
      "description": "Permission to manage users and to add or remove permissions to delegated users.",
      "name": "usermanagement:readwrite",
      "function": "user_management",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "description": "Permission to buy products in OTT apps.",
      "name": "impulsebuy:enabled",
      "function": "impulse_buy",
      "action": "Enabled"
    },
    {
      "@type": "PermissionSpecification",
      "description": "Permission to manage delegated users parental controls.",
      "name": "parentalcontrols:manage",
      "function": "manage_parental_controls",
      "action": "ReadWrite"
    }
  ]
}
```

Response

```
201

{
  "@type": "PermissionSpecificationSet",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/pss-8f1a5628",
  "id": "pss-8f1a5628",
  "name": "Customer.OTT.Primary.User",
  "involvementRole": "Customer.OTT.Primary.User",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-a99c47c6",
      "id": "ps-a99c47c6",
      "description": "Permission to manage users and to add or remove permissions to delegated users.",
      "name": "usermanagement:readwrite",
      "function": "user_management",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-5ea0f3cc",

```

```

    "id": "ps-5ea0f3cc",
    "description": "Permission to buy products in OTT apps.",
    "name": "impulsebuy:enabled",
    "function": "impulse_buy",
    "action": "Enabled"
  },
  {
    "@type": "PermissionSpecification",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
    b4b3601a",
    "id": "ps-b4b3601a",
    "description": "Permission to manage delegated users parental controls.",
    "name": "parentalcontrols:manage",
    "function": "manage_parental_controls",
    "action": "ReadWrite"
  }
]
}

```

Updates partially a PermissionSpecificationSet

PATCH /permissionSpecificationSet/{id}?fields=...

Description

This operation allows partial updates of a PermissionSpecificationSet entity. Support of json/merge (<https://tools.ietf.org/html/rfc7396>) is mandatory, support of json/patch (<http://tools.ietf.org/html/rfc5789>) is optional. Note: If the update operation yields to the creation of sub-resources or relationships, the same rules concerning mandatory sub-resource attributes and default value settings in the POST operation applies to the PATCH operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
href	
id	
@baseType	@baseType is immutable
@schemaLocation	@schemaLocation is immutable
@type	@type is immutable

Patchable Attributes	Rule
description	
involvementRole	
name	
permissionSpecification	

Usage samples

Example of a request for partial updating a permission specification set, using JSON Patch Query.

Request

```
PATCH /permissionSpecificationSet/413920
Content-Type: application/json-patch-query+json

[
  {
    "op": "remove",
    "path": "/permissionSpecification?permissionSpecification.id=632514"
  }
]
```

Response

```
200

{
  "@type": "PermissionSpecificationSet",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/413920",
  "id": "413920",
  "involvementRole": "MyTV SPORT+ familyAdmin Profile",
  "name": "TV Sport and Family Admin",
  "description": "Gives permissions to use Sport Channels and manage the family",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/12014",
      "id": "12014"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/960124",
      "id": "960124"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/6888633",
      "id": "6888633"
    }
  ]
}
```

Example of a request for fully updating an entire permission specification set.

Request

```
PATCH /permissionSpecificationSet/413920
Content-Type: application/json

{
  "@type": "PermissionSpecificationSet",
  "involvementRole": "MyTV SPORT+ familyAdmin Profile",
  "name": "TV Sport and Family Admin",
  "description": "Gives permissions to use Sport Channels and manage the family",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "id": "632514"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "id": "12014"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "id": "960124"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "id": "6888633"
    }
  ]
}
```

Response

```
200

{
  "@type": "PermissionSpecificationSet",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/413920",
  "id": "413920",
  "involvementRole": "MyTV SPORT+ familyAdmin Profile",
  "name": "TV Sport and Family Admin",
  "description": "Gives permissions to use Sport Channels and manage the family",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/632514",
      "id": "632514"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",

```

```

    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/12014",
    "id": "12014"
  },
  {
    "@type": "PermissionSpecificationRef",
    "@referredType": "PermissionSpecification",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/960124"
  },
  {
    "@type": "PermissionSpecificationRef",
    "@referredType": "PermissionSpecification",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/6888633"
  },
  {
    "id": "6888633"
  }
]
}

```

Example of a request for partial updating a permission specification set, using MERGE Patch.

Request

```

PATCH /permissionSpecificationSet/413920
Content-Type: application/merge-patch+json

{
  "@type": "PermissionSpecificationSet",
  "name": "TV Sport and Family Admin",
  "description": "Gives permissions to use Sport Channels and manage the family"
}

```

Response

```

200

{
  "@type": "PermissionSpecificationSet",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/413920",
  "id": "413920",
  "involvementRole": "MyTV SPORT+ familyAdmin Profile",
  "name": "TV Sport and Family Admin",
  "description": "Gives permissions to use Sport Channels and manage the family",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/632514"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/12014"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
      "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/960124"
    }
  ]
}

```

```

      "id": "632514"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/12014",
      "id": "12014"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/960124"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/6888633"
    },
    {
      "id": "6888633"
    }
  ]
}

```

Example of a request for partial updating a permission specification set, using JSON Patch.

Request

```

PATCH /permissionSpecificationSet/413920
Content-Type: application/json-patch+json

[
  {
    "op": "add",
    "path": "/permissionSpecification",
    "value": {
      "id": "6888633",
      "@type": "PermissionSpecificationRef",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/6888633"
    }
  }
]

```

Response

```

200

{
  "@type": "PermissionSpecificationSet",
  "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecificationSet/4139"
}

```



```

20",
  "id": "413920",
  "involvementRole": "MyTV SPORT+ familyAdmin Profile",
  "permissionSpecification": [
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/632514"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/12014",
      "id": "12014"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/960124"
    },
    {
      "@type": "PermissionSpecificationRef",
      "@referredType": "PermissionSpecification",
      "href":
        "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/6888633"
    },
    {
      "id": "6888633"
    }
  ]
}

```

Deletes a PermissionSpecificationSet

DELETE /permissionSpecificationSet/{id}

Description

This operation deletes a PermissionSpecificationSet entity.

Usage samples

Here's an example of a request for delete a specific permission specification set.

Request

```

DELETE /permissionSpecificationSet/3267623312453
Content-Type: application/json

```

Response

204

Operations on PermissionSpecification

Retrieves a PermissionSpecification by ID

GET /permissionSpecification/{id}?fields=...

Description

This operation retrieves a PermissionSpecification entity. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

Retrieve a permission specification by its identifier

Request

```
GET /permissionSpecification/ps-7e0a2d18
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecification",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
  "id": "ps-7e0a2d18",
  "name": "ProductOrder:grantAlteration",
  "function": "ProductOrder",
  "action": "grantAlteration",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "reductionPercentage",
      "valueType": "number",
      "characteristicValueSpecification": [
        {
          "@type": "FloatCharacteristicValueSpecification",
          "valueType": "number",
          "value": 5.5
        }
      ]
    }
  ]
}
```

Retrieve a permission specification by its identifier

Request

```
GET /permissionSpecification/ps-7e0a2d18
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecification",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-713e2adc",
  "id": "ps-713e2adc",
  "name": "all:readwrite",
  "function": "all",
  "action": "ReadWrite"
}
```

Retrieve a permission specification by its identifier

Request

```
GET /permissionSpecification/ps-7e0a2d18
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecification",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-591c77a2",
  "id": "ps-591c77a2",
  "description": "Permission to view and change account data details.",
  "name": "accountdetails:readwrite",
  "function": "account_details",
  "action": "ReadWrite"
}
```

Retrieve a permission specification by its identifier

Request

```
GET /permissionSpecification/ps-7e0a2d18
```

```
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecification",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-9f32c9e0",
  "id": "ps-9f32c9e0",
  "description": "Permission to place request to change holder data.",
  "name": "holderdata:change",
  "function": "change_holder_data",
  "action": "ReadWrite",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "Macro.Segment",
      "valueType": "string",
      "characteristicValueSpecification": [
        {
          "@type": "StringCharacteristicValueSpecification",
          "valueType": "string",
          "value": "mass_market"
        },
        {
          "@type": "StringCharacteristicValueSpecification",
          "valueType": "string",
          "value": "residential"
        }
      ]
    }
  ]
}
```

Retrieve a permission specification by its identifier

Request

```
GET /permissionSpecification/ps-7e0a2d18
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecification",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-a99c47c6",
  "id": "ps-a99c47c6",
  "description": "Permission to manage users and to add or remove permissions to
```

```
delegated users.",
  "function": "user_management",
  "action": "ReadWrite"
}
```

Retrieve a permission specification by its identifier

Request

```
GET /permissionSpecification/ps-7e0a2d18
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecification",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-5ea0f3cc",
  "id": "ps-5ea0f3cc",
  "description": "Permission to buy products in OTT apps.",
  "function": "impulse_buy",
  "action": "Enabled"
}
```

Retrieve a permission specification by its identifier

Request

```
GET /permissionSpecification/ps-7e0a2d18
Content-Type: application/json
```

Response

```
200

{
  "@type": "PermissionSpecification",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-b4b3601a",
  "id": "ps-b4b3601a",
  "description": "Permission to manage delegated users parental controls.",
  "function": "manage_parental_controls",
  "action": "ReadWrite"
}
```

List or find PermissionSpecification objects

GET /permissionSpecification?fields=...

Description

This operation list PermissionSpecification entities. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

Retrieve a list of permission specifications

Request

```
GET /permissionSpecification
Content-Type: application/json
```

Response

```
200

[
  {
    "@type": "PermissionSpecification",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
    "id": "ps-7e0a2d18",
    "name": "ProductOrder:grantAlteration",
    "function": "ProductOrder",
    "action": "grantAlteration",
    "specificationCharacteristic": [
      {
        "@type": "CharacteristicSpecification",
        "name": "reductionPercentage",
        "valueType": "number",
        "characteristicValueSpecification": [
          {
            "@type": "FloatCharacteristicValueSpecification",
            "valueType": "number",
            "value": 5.5
          }
        ]
      }
    ]
  },
  {
    "@type": "PermissionSpecification",
    "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-713e2adc",
    "id": "ps-713e2adc",
    "name": "all:readwrite",
    "function": "all",
    "action": "ReadWrite"
  }
]
```

```

    },
    {
      "@type": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-591c77a2",
      "id": "ps-591c77a2",
      "description": "Permission to view and change account data details.",
      "name": "accountdetails:readwrite",
      "function": "account_details",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-9f32c9e0",
      "id": "ps-9f32c9e0",
      "description": "Permission to place request to change holder data.",
      "name": "holderdata:change",
      "function": "change_holder_data",
      "action": "ReadWrite",
      "specificationCharacteristic": [
        {
          "@type": "CharacteristicSpecification",
          "name": "Macro.Segment",
          "valueType": "string",
          "characteristicValueSpecification": [
            {
              "@type": "StringCharacteristicValueSpecification",
              "valueType": "string",
              "value": "mass_market"
            },
            {
              "@type": "StringCharacteristicValueSpecification",
              "valueType": "string",
              "value": "residential"
            }
          ]
        }
      ]
    },
    {
      "@type": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-a99c47c6",
      "id": "ps-a99c47c6",
      "description": "Permission to manage users and to add or remove permissions to delegated users.",
      "function": "user_management",
      "action": "ReadWrite"
    },
    {
      "@type": "PermissionSpecification",
      "href":
"https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-5ea0f3cc",
      "id": "ps-5ea0f3cc",
      "description": "Permission to buy products in OTT apps.",
      "function": "impulse_buy",
      "action": "Enabled"
    },
  ],

```

```
{
  "@type": "PermissionSpecification",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
  b4b3601a",
  "id": "ps-b4b3601a",
  "description": "Permission to manage delegated users parental controls.",
  "function": "manage_parental_controls",
  "action": "ReadWrite"
}
```

Creates a PermissionSpecification

POST /permissionSpecification?fields=...

Description

This operation creates a PermissionSpecification entity.

Mandatory Attributes

Mandatory Attributes	Rule
action	
function	
name	
@type	

Usage samples

Creation of a new PermissionSpecification with POST operation

Request

```
POST /permissionSpecification
Content-Type: application/json

{
  "@type": "PermissionSpecification",
  "function": "ProductOrder",
  "action": "grantAlteration",
  "name": "Allow adhoc price alteration",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "reductionPercentage",
      "valueType": "number",
      "characteristicValueSpecification": [
        {
          "@type": "FloatCharacteristicValueSpecification",
          "valueType": "number",
          "value": 5.5
        }
      ]
    }
  ]
}
```



```

    }
  ]
}

```

Response

```

201

{
  "@type": "PermissionSpecification",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-
  7e0a2d18",
  "id": "ps-7e0a2d18",
  "function": "ProductOrder",
  "action": "grantAlteration",
  "name": "Allow adhoc price alteration",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "reductionPercentage",
      "valueType": "number",
      "characteristicValueSpecification": [
        {
          "@type": "FloatCharacteristicValueSpecification",
          "valueType": "number",
          "value": 5.5
        }
      ]
    }
  ]
}

```

Updates partially a PermissionSpecification

PATCH /permissionSpecification/{id}?fields=...

Description

This operation allows partial updates of a PermissionSpecification entity. Support of json/merge (<https://tools.ietf.org/html/rfc7396>) is mandatory, support of json/patch (<http://tools.ietf.org/html/rfc5789>) is optional. Note: If the update operation yields to the creation of sub-resources or relationships, the same rules concerning mandatory sub-resource attributes and default value settings in the POST operation applies to the PATCH operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
href	
id	
@baseType	@baseType is immutable

Non Patchable Attributes	Rule
@schemaLocation	@schemaLocation is immutable
@type	@type is immutable

Patchable Attributes	Rule
action	
description	
function	
name	
specificationCharacteristic	

Usage samples

Example of a request for partial updating a permission specification, using JSON Patch.

Request

```
PATCH /permissionSpecification/ps-7e0a2d18
Content-Type: application/json-patch+json

[
  {
    "op": "add",
    "path": "/specificationCharacteristic",
    "value": {
      "@type": "CharacteristicSpecification",
      "valueType": "boolean",
      "name": "reductionPercentageRestricted",
      "characteristicValueSpecification": [
        {
          "@type": "BooleanCharacteristicValueSpecification",
          "valueType": "boolean",
          "value": true
        }
      ]
    }
  }
]
```

Response

```
200

{
  "@type": "PermissionSpecification",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
  "id": "ps-7e0a2d18",
  "name": "ProductOrder:grantAlteration",
  "function": "ProductOrder",
```

```

    "action": "grantAlteration",
    "specificationCharacteristic": [
      {
        "@type": "CharacteristicSpecification",
        "name": "reductionPercentage",
        "valueType": "number",
        "characteristicValueSpecification": [
          {
            "@type": "FloatCharacteristicValueSpecification",
            "valueType": "number",
            "value": 5.5
          }
        ]
      },
      {
        "@type": "CharacteristicSpecification",
        "valueType": "boolean",
        "name": "reductionPercentageRestricted",
        "characteristicValueSpecification": [
          {
            "@type": "BooleanCharacteristicValueSpecification",
            "valueType": "boolean",
            "value": true
          }
        ]
      }
    ]
  }
}

```

Example of a request for partial updating a permission specification, using MERGE Patch.

Request

```

PATCH /permissionSpecification/ps-7e0a2d18
Content-Type: application/merge-patch+json

{
  "@type": "PermissionSpecification",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "reductionPercentage",
      "valueType": "number",
      "characteristicValueSpecification": [
        {
          "@type": "FloatCharacteristicValueSpecification",
          "valueType": "number",
          "value": 5.5
        }
      ]
    }
  ]
}

```

Response

```
200
```

```
{
  "@type": "PermissionSpecification",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
  "id": "ps-7e0a2d18",
  "name": "ProductOrder:grantAlteration",
  "function": "ProductOrder",
  "action": "grantAlteration",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "reductionPercentage",
      "valueType": "number",
      "characteristicValueSpecification": [
        {
          "@type": "FloatCharacteristicValueSpecification",
          "valueType": "number",
          "value": 5.5
        }
      ]
    }
  ]
}
```

Example of a request for fully updating an entire permission specification.

Request

```
PATCH /permissionSpecification/ps-7e0a2d18
Content-Type: application/json

{
  "@type": "PermissionSpecification",
  "name": "ProductOrder:grantAlteration",
  "function": "ProductOrder",
  "action": "grantAlteration",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "reductionPercentage",
      "valueType": "number",
      "characteristicValueSpecification": [
        {
          "@type": "FloatCharacteristicValueSpecification",
          "valueType": "number",
          "value": 5.5
        }
      ]
    }
  ]
}
```

Response

```
200
```

```
{
  "@type": "PermissionSpecification",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
  "id": "ps-7e0a2d18",
  "name": "ProductOrder:grantAlteration",
  "function": "ProductOrder",
  "action": "grantAlteration",
  "specificationCharacteristic": [
    {
      "@type": "CharacteristicSpecification",
      "name": "reductionPercentage",
      "valueType": "number",
      "characteristicValueSpecification": [
        {
          "@type": "FloatCharacteristicValueSpecification",
          "valueType": "number",
          "value": 5.5
        }
      ]
    }
  ]
}
```

Example of a request for partial updating a permission specification, using JSON Patch Query.

Request

```
PATCH /permissionSpecification/ps-7e0a2d18
Content-Type: application/json-patch-query+json

[
  {
    "op": "replace",
    "path":
    "/specificationCharacteristic/characteristicValueSpecification/value?specificationCharacteristic.name=reductionPercentage",
    "value": 5.5
  }
]
```

Response

```
200

{
  "@type": "PermissionSpecification",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/permissionSpecification/ps-7e0a2d18",
  "id": "ps-7e0a2d18",
  "name": "ProductOrder:grantAlteration",
  "function": "ProductOrder",
  "action": "grantAlteration",
```

```
"specificationCharacteristic": [  
  {  
    "@type": "CharacteristicSpecification",  
    "name": "reductionPercentage",  
    "valueType": "number",  
    "characteristicValueSpecification": [  
      {  
        "@type": "FloatCharacteristicValueSpecification",  
        "valueType": "number",  
        "value": 5.5  
      }  
    ]  
  }  
]
```

Deletes a PermissionSpecification

DELETE /permissionSpecification/{id}

Description

This operation deletes a PermissionSpecification entity.

Usage samples

Here's an example of a request for delete a specific permission specification.

Request

```
DELETE /permissionSpecification/25632415  
Content-Type: application/json
```

Response

204

Operations on CheckPermission

List or find CheckPermission objects

GET /checkPermission?fields=...

Description

This operation list CheckPermission entities. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

Retrieve a list of succeeded check permission task resources.

Request

```
GET /checkPermission
Content-Type: application/json
```

Response

```
200

[
  {
    "id": "f3fc707ae9ce42fbbf273a46ccacdeca",
    "href": "https://serverRoot/rolesAndPermissionsManagement/v5/checkPermission/32434646753180"
  },
  {
    "@type": "CheckPermission",
    "state": "done",
    "permissionSpecification": {
      "@type": "PermissionSpecification",
      "function": "ProductOffering",
      "action": "create"
    },
    "user": {
      "role": "ProductManager",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "id": "Jonathan.Goldberg",
        "@type": "PartyRef",
        "@referredType": "PartyRole"
      }
    }
  }
]
```

Retrieves a CheckPermission by ID

GET /checkPermission/{id}?fields=...

Description

This operation retrieves a CheckPermission entity. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

Retrieve results of a check permission task by its identifier

Request

```
GET /checkPermission/x
Content-Type: application/json
```

Response

```
200

{
  "id": "f3fc707ae9ce42fbbf273a46ccacdeca",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/checkPermission/f3fc707ae9ce42fbbf273a46ccacdeca",
  "@type": "CheckPermission",
  "state": "done",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "name": "ProductOffering::create",
    "function": "ProductOffering",
    "action": "create"
  },
  "user": {
    "role": "ProductManager",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  }
}
```

Creates a CheckPermission

POST /checkPermission?fields=...

Description

This operation creates a CheckPermission entity.

Mandatory Attributes

Mandatory Attributes	Rule
permissionSpecification	
permissionSpecification.@type	
permissionSpecification.action	
permissionSpecification.function	
permissionSpecification.id	
permissionSpecification.name	
user	
user.@type	
user.role	
@type	

Usage samples

Basic verification that the user is allowed to create any product offering.

Request

```
POST /checkPermission
Content-Type: application/json

{
  "@type": "CheckPermission",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "name": "ProductOffering::create",
    "function": "ProductOffering",
    "action": "create"
  },
  "user": {
    "role": "ProductManager",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  }
}
```

Response

```
200

{
  "id": "f3fc707ae9ce42fbbf273a46ccacdeca",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/checkPermission/f3fc707ae9ce42fbbf273a46ccacdeca",
  "@type": "CheckPermission",
  "state": "InProgress",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "name": "ProductOffering::create",
    "function": "ProductOffering",
    "action": "create"
  },
  "user": {
    "role": "ProductManager",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  }
}
```

Verify that the user is allowed to give an ad-hoc price reduction of 10% in a product order.

Request

```
POST /checkPermission
Content-Type: application/json

{
  "@type": "CheckPermission",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "name": "ProductOrder:grantAlteration",
    "function": "ProductOrder",
    "action": "grantAlteration"
  },
  "user": {
    "role": "SalesAgent",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  },
  "characteristic": [
    {
      "@type": "NumberCharacteristic",
      "name": "reductionPercentage",
      "valueType": "number",
      "value": 10
    }
  ],
  "entity": [
    {
      "id": "PO555333313",
      "@type": "EntityRef",
      "@referredType": "ProductOrder"
    }
  ]
}
```

Response

```
200

{
  "id": "bb58c1704de946a9bfe07f6d622287e5",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/checkPermission/bb58c1704de946a9bfe07f6d622287e5",
  "@type": "CheckPermission",
  "state": "InProgress",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "name": "ProductOrder:grantAlteration",
    "function": "ProductOrder",
    "action": "grantAlteration"
  },
  "user": {
    "role": "SalesAgent",
    "@type": "RelatedPartyRefOrPartyRoleRef",
```

```

    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  ],
  "characteristic": [
    {
      "@type": "NumberCharacteristic",
      "name": "reductionPercentage",
      "valueType": "number",
      "value": 10
    }
  ],
  "entity": [
    {
      "id": "PO555333313",
      "href":
"https://serverRoot/productOrderingManagement/v5/productOrder/PO555333313",
      "@type": "EntityRef",
      "@referredType": "ProductOrder"
    }
  ]
}

```

SteffiApf is a legal guardian for Hans, she needs permissions to read Hans' products, in this example product prod1

Request

```

POST /checkPermission
Content-Type: application/json

{
  "@type": "CheckPermission",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "name": "Product:read",
    "function": "Product",
    "action": "read"
  },
  "user": {
    "role": "ProductUser",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  },
  "entity": [
    {
      "id": "g265-tf85",
      "@type": "EntityRef",
      "@referredType": "Product"
    }
  ]
}

```

Response

```

200

{
  "id": "687aa68dd7c24668a545ba00a071d2d5",
  "href":
  "https://serverRoot/rolesAndPermissionsManagement/v5/checkPermission/687aa68dd7c2466
  8a545ba00a071d2d5",
  "@type": "CheckPermission",
  "state": "InProgress",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "name": "Product:read",
    "function": "Product",
    "action": "read"
  },
  "user": {
    "role": "ProductUser",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jonathan.Goldberg",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  },
  "entity": [
    {
      "id": "g265-tf85",
      "href": "https://serverRoot/productInventoryManagement/v5/product/g265-tf85",
      "@type": "EntityRef",
      "@referredType": "Product"
    }
  ]
}

```

User Jane Doe is a product marketer for mobile, she can create mobile offerings and prices, but not in other lines of business. No LoB explicit field in ProductOffering so using category to signify

Request

```

POST /checkPermission
Content-Type: application/json

{
  "@type": "CheckPermission",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "name": "ProductOffering:read",
    "function": "ProductOffering",
    "action": "read"
  },
  "user": {
    "role": "ProductMarketeer",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {

```

```
    "id": "Jane.Doe",
    "@type": "PartyRoleRef",
    "@referredType": "PartyRole"
  }
},
"entity": [
  {
    "id": "7655",
    "@type": "EntityRef",
    "@referredType": "ProductOffering"
  }
]
}
```

Response

```
200

{
  "id": "ba522cd932bc43ccb1f308c4bfff8ea3",
  "href":
    "https://serverRoot/rolesAndPermissionsManagement/v5/checkPermission/ba522cd932bc43c
    cb1f308c4bfff8ea3",
  "@type": "CheckPermission",
  "state": "InProgress",
  "permissionSpecification": {
    "@type": "PermissionSpecification",
    "name": "ProductOffering:read",
    "function": "ProductOffering",
    "action": "read"
  },
  "user": {
    "role": "ProductMarketeer",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "id": "Jane.Doe",
      "@type": "PartyRoleRef",
      "@referredType": "PartyRole"
    }
  },
  "entity": [
    {
      "id": "7655",
      "href": "https://serverRoot/productCatalogManagement/v5/productOffering/7655",
      "@type": "EntityRef",
      "@referredType": "ProductOffering"
    }
  ]
}
```

API NOTIFICATIONS

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.

Usage Samples

Here's an example of a request for registering a listener.

Request

```
POST /api/hub

Accept: application/json

{
  "callback": "http://in.listener.com"
}
```

Response

```
201

Content-Type: application/json

Location: /api/hub/42

{
  "id": "42",
  "callback": "http://in.listener.com",
  "query": ""
}
```

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.

Usage Samples

Here's an example of a request for un-registering a listener.

Request

```
DELETE /api/hub/42  
  
Accept: application/json
```

Response

```
204
```

Publish Event to listener

POST /client/listener

Description

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

Provides to a registered listener the description of the event that was raised. The /client/listener url is the callback url passed when registering the listener.

Behavior

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

Usage Samples

Here's an example of a notification received by the listener. In this example "EVENT TYPE" should be replaced by one of the notification types supported by this API (see Notification resources Models section) and EVENT BODY refers to the data structure of the given notification type.

Request

```
POST /client/listener

Accept: application/json

{
  "event": {
    EVENT BODY
  },
  "eventType": "EVENT_TYPE"
}
```

Response

```
201
```

For detailed examples on the general TM Forum notification mechanism, see the TMF REST Design Guidelines.

Acknowledgements

Version History

Version Number	Date Modified	Modified by:	Description of changes
5.0.0	31-Jul-2021	Don Anton Dehipitiarachchi (Verizon), Jonathan Goldberg (Amdocs)	Rework for v5
5.0.0	28-Apr-2023	Jonathan Goldberg (Amdocs), Bruno Sousa Fernandes (NOS)	Added global party domain overview. Operation examples and use case enhancements.
5.0.1	29-Oct-2024	Bruno Sousa Fernandes (NOS)	Fixed examples according to new API tooling linter and two minor fixes in schema.

Release History

Release Number	Release Status	Date	Release led by:	Description
5.0.0	Preview	17-Jul-2024	Jonathan Goldberg (Amdocs)	Initial revision of the document.
5.0.1	Preview	14-Nov-2024	Bruno Sousa Fernandes (NOS)	OAS and User guide fixes including examples and two minor fixes in schema.

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