

TM Forum Specification

Resource Inventory Management

TMF639

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Introduction

The following document is the user guide of the REST API for Any management. It includes the model definition as well as all available operations.

Sample Use Cases

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

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 `BillingAccount` and `SettlementAccount` inheriting properties from the abstract `Account` entity.

Generic support of polymorphism and pattern extensions is described in the TMF API Guidelines, Part 2 (TMF630).

The `@type` attribute provides a way to represent the actual class type of an entity. For example, within a list of `Account` instances some may be instances of `BillingAccount` where other could be instances of `SettlementAccount`. 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 `AccountRef` 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 `BillingAccountRef` or `SettlementAccountRef`, 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

Resource resource

Resource is an abstract entity that describes the common set of attributes shared by all concrete resources (e.g. TPE, EQUIPMENT) in the inventory.

Resource model

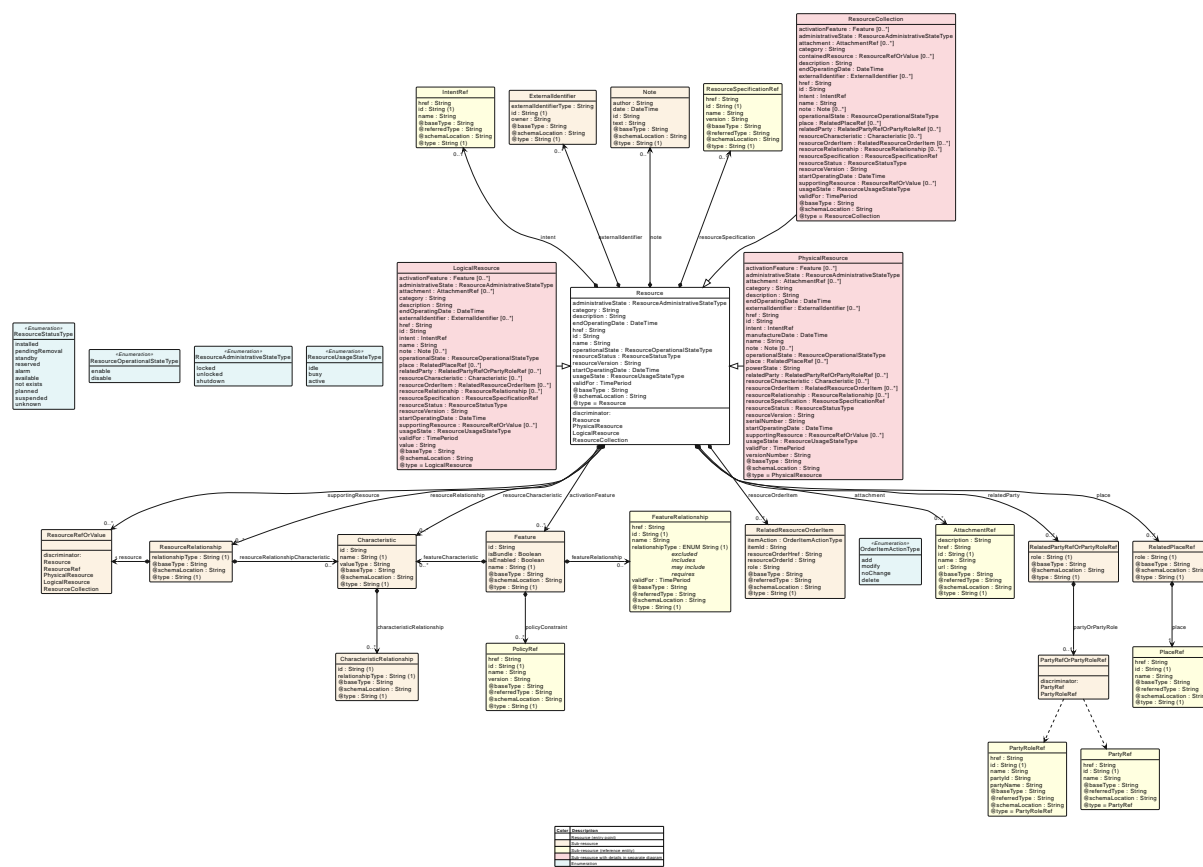


Figure 1 - Resource

[.] | //

Figure 2 - Resource

Field descriptions

Resource fields

activationFeature	A Feature. Configuration feature.
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administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable

place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resourceSpecification	A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.
resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: <ul style="list-style-type: none"> * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown

resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
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.
	Resource can be instantiated as * LogicalResource * PhysicalResource * ResourceCollection
containedResource	This property is present in subclasses
manufactureDate	This property is present in subclasses
powerState	This property is present in subclasses
serialNumber	This property is present in subclasses
value	This property is present in subclasses
versionNumber	This property is present in subclasses

ResourceRef 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.

PhysicalResource sub-resource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
manufactureDate	A DateTime. This is a string attribute that defines the date of manufacture of this item in the fixed format "dd/mm/yyyy". This is an optional attribute.

name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
powerState	A String. This defines the current power status of the hardware item. Values include: 0: Unknown 1: Not Applicable 2: No Power Applied 3: Full Power Applied 4: Power Save - Normal 5: Power Save - Degraded 6: Power Save - Standby 7: Power Save - Critical 8: Power Save - Low Power Mode 9: Power Save - Unknown 10: Power Cycle 11: Power Warning 12: Power Off.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.

resourceSpecification	<p>A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.</p>
resourceStatus	<p>A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values:</p> <ul style="list-style-type: none"> * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
serialNumber	A String. This is a string that represents a manufacturer-allocated number used to identify different instances of the same hardware item. The ModelNumber and PartNumber attributes are used to identify different types of hardware items. This is a REQUIRED attribute.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	<p>A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values:</p> <ul style="list-style-type: none"> * idle * active * busy
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

versionNumber	A String. This is a string that identifies the version of this physical resource. This is an optional attribute.
@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.

LogicalResource sub-resource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.

name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resourceSpecification	A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.

resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String. The value of the logical resource. E.g '0746712345' for MSISDN's.
@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.

ResourceCollection sub-resource fields

activationFeature	A Feature. Configuration feature.
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administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
containedResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.

operationalState	<p>A ResourceOperationalStateType.</p> <p>ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values:</p> <ul style="list-style-type: none"> * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	<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>
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	<p>A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.</p>
resourceSpecification	<p>A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.</p>

resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
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.

IntentRef 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.
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RelatedResourceOrderItem sub-resource fields

itemAction	An OrderItemType. Action to be performed on the product. ENUMERATED with values: * add * modify * delete * noChange
itemId	A String. Identifier of the order item where the resource was managed.
resourceOrderHref	A String. Reference of the related entity.
resourceOrderId	A String. Unique identifier of a related entity.
role	A String. Role of the resource order item for this resource.
@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.

ResourceRelationship sub-resource fields

relationshipType	A String. Type of the resource relationship, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (eg: an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
resourceRelationshipCharacteristic	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...
@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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ExternalIdentifier sub-resource fields

externalIdentifierType	A String. Type of the identification, typically would be the type of the entity within the external system.
id	A String. Identification of the entity within the external system.
owner	A String. Name of the external system that owns the 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.

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.

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.

RelatedPlaceRef sub-resource fields

place	A PlaceRef. Place reference.
-------	------------------------------

role	A String.
@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.

Feature sub-resource fields

featureCharacteristic	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...
featureRelationship	A FeatureRelationship. Configuration feature.
id	A String. Unique identifier.
isBundle	A Boolean. True if this is a feature group. Default is false.
isEnabled	A Boolean. True if this feature is enabled. Default is true.
name	A String. This is the name for the feature.
policyConstraint	A PolicyRef. Reference to managed Policy object.
@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.

Note sub-resource fields

author	A String. Author of the note.
date	A DateTime. Date of the note.
id	A String. Identifier of the note within its containing entity.
text	A String. Text of the note.
@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.

ResourceSpecificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
version	A String. Resource Specification version.
@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.

AttachmentRef sub-resource fields

description	A String. A narrative text describing the content of the attachment.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
url	A String. Link to the attachment media/content.
@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.

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.

PlaceRef 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.

FeatureRelationship sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
relationshipType	A String. This is the type of the feature relationship. ENUMERATED with values: * excluded * includes * may include * requires
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.
@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.

PolicyRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
version	A String.
@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 'Resource' resource object.

```
{
  "id": "8044",
  "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",
  "description": "This is a Router resource with the category Router and with a reserved resourceStatus for organisations.",
  "category": "Router",
  "startOperatingDate": "2020-03-04T00:00.000Z",
  "endOperatingDate": "2023-09-04T08:00.000Z",
  "administrativeState": "locked",
}
```

```

"operationalState": "enable",
"usageState": "active",
"resourceStatus": "reserved",
"resourceVersion": "v2",
"@type": "Resource",
"relatedParty": [
  {
    "role": "user",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
      "id": "456",
      "name": "John Doe",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  }
],
"note": [
  {
    "text": "something about this resource",
    "@type": "Note"
  }
],
"place": {
  "role": "installationAddress",
  "@type": "RelatedPlaceRef",
  "place": {
    "id": "9912",
    "href":
"https://host:port/geographicAddressManagement/v5/geographicAddress/9912",
    "@type": "PlaceRef",
    "@referredType": "GeographicAddress"
  }
},
"resourceRelationship": [
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "44",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
      "@type": "ResourceRef"
    }
  },
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "45",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
      "@type": "ResourceRef"
    }
  }
],
"resourceSpecification": {
  "id": "4",
  "href":
"http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
  "@type": "ResourceSpecificationRef",
  "@referredType": "ResourceSpecification"
},
"externalIdentifier": [

```

```

    {
      "externalIdentifierType": "Supplier-Router-Id",
      "id": "XYZ-1174-B",
      "owner": "Supplier-A",
      "@type": "ExternalIdentifier"
    }
  ],
  "supportingResource": [
    {
      "id": "918273",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/918273",
      "@type": "ResourceRef"
    }
  ],
  "resourceCharacteristic": [
    {
      "name": "casing size",
      "valueType": "String",
      "value": "19\\",
      "@type": "StringCharacteristic"
    }
  ],
  "resourceOrderItem": [
    {
      "role": "supplier purchase",
      "itemAction": "add",
      "itemId": "1",
      "resourceOrderId": "66588438-2",
      "resourceOrderHref":
"http://server:port/resourceOrderManagement/v5/resourceOrder/66588438-2",
      "@type": "RelatedResourceOrderItem",
      "@referredType": "ResourceOrderItem"
    }
  ],
  "attachment": [
    {
      "id": "D-2024-05-13-X47",
      "href": "http://server:port/documentManagement/v5/document/D-2024-05-13-X47",
      "description": "delivery note",
      "@type": "AttachmentRef",
      "@referredType": "Document"
    }
  ]
}

```

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

```

{
  "id": "44",
  "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
  "description": "This is Port 1 contained in the Router.",
  "category": "Port",
  "@type": "Resource",
  "resourceSpecification": {
    "id": "1004",
    "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
    "@type": "ResourceSpecificationRef",
    "@referredType": "ResourceSpecification"
  }
}

```

```
}

```

LogicalResource resource

Logic resource is a type of resource that describes the common set of attributes shared by all concrete logical resources (e.g. TPE, MSISDN, IP Addresses) in the inventory.

Resource model

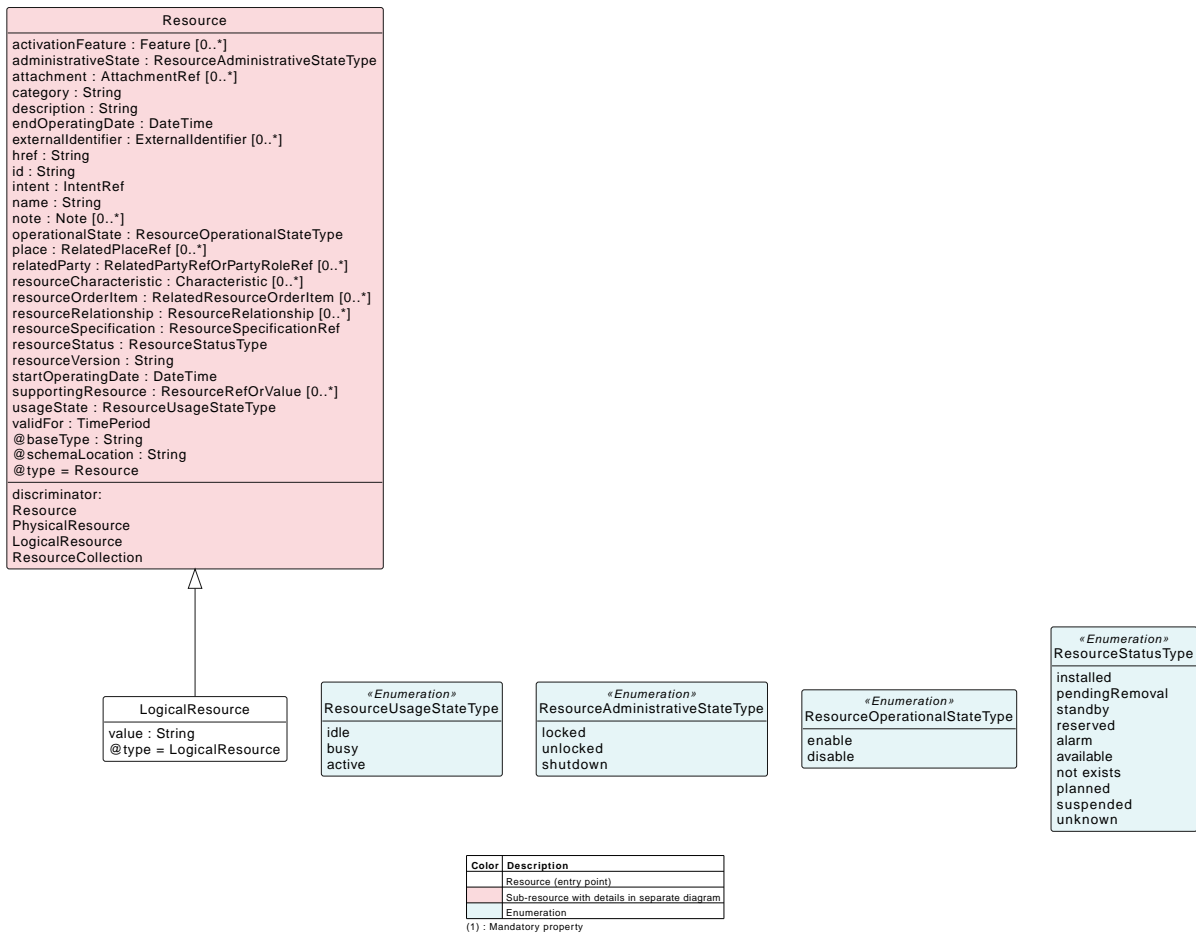


Figure 3 - LogicalResource

[.] | .//

Figure 4 - LogicalResource

Field descriptions

LogicalResource fields

activationFeature	A Feature. Configuration feature.
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administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable

place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resourceSpecification	A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.
resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown

resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String. The value of the logical resource. E.g '0746712345' for MSISDN's.
@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.

Resource sub-resource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.

category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.

resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resourceSpecification	A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.
resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: <ul style="list-style-type: none"> * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: <ul style="list-style-type: none"> * idle * active * busy

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.
	Resource can be instantiated as <ul style="list-style-type: none"> * LogicalResource * PhysicalResource * ResourceCollection
containedResource	This property is present in subclasses
manufactureDate	This property is present in subclasses
powerState	This property is present in subclasses
serialNumber	This property is present in subclasses
value	This property is present in subclasses
versionNumber	This property is present in subclasses

PhysicalResource sub-resource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: <ul style="list-style-type: none"> * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.

externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
manufactureDate	A DateTime. This is a string attribute that defines the date of manufacture of this item in the fixed format "dd/mm/yyyy". This is an optional attribute.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
powerState	A String. This defines the current power status of the hardware item. Values include: 0: Unknown 1: Not Applicable 2: No Power Applied 3: Full Power Applied 4: Power Save - Normal 5: Power Save - Degraded 6: Power Save - Standby 7: Power Save - Critical 8: Power Save - Low Power Mode 9: Power Save - Unknown 10: Power Cycle 11: Power Warning 12: Power Off.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.

resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resourceSpecification	A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.
resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: <ul style="list-style-type: none"> * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
serialNumber	A String. This is a string that represents a manufacturer-allocated number used to identify different instances of the same hardware item. The ModelNumber and PartNumber attributes are used to identify different types of hardware items. This is a REQUIRED attribute.

startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
validFor	A TimePeriod. A period of time, either as a deadline (endTime only) a startTime only, or both.
versionNumber	A String. This is a string that identifies the version of this physical resource. This is an optional attribute.
@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.

ResourceCollection sub-resource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.

containedResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.

resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resourceSpecification	A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.
resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: <ul style="list-style-type: none"> * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: <ul style="list-style-type: none"> * idle * active * busy

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.

PhysicalResource resource

Physical resource is a type of resource that describes the common set of attributes shared by all concrete physical resources (e.g. EQUIPMENT) in the inventory.

Resource model

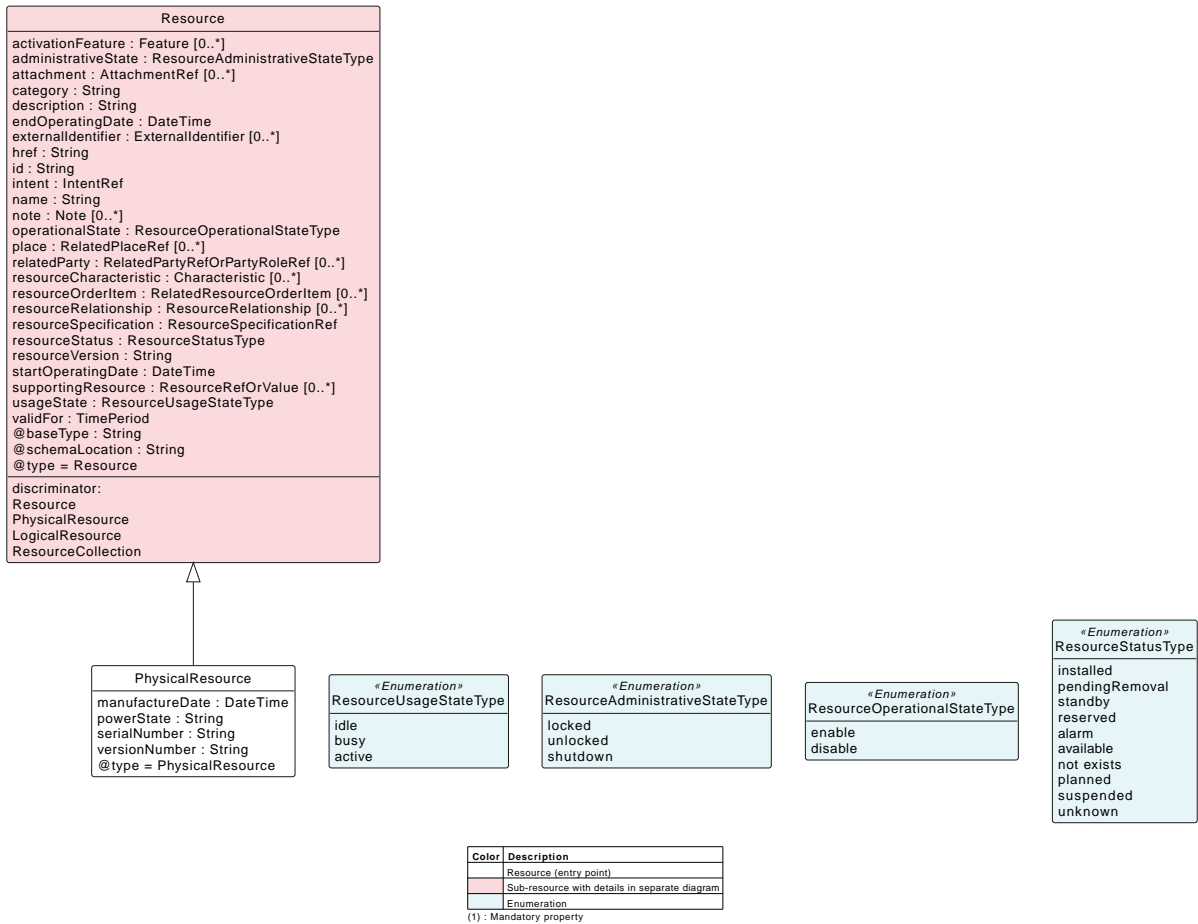


Figure 5 - PhysicalResource

[.] | ../

Figure 6 - PhysicalResource

Field descriptions

PhysicalResource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
manufactureDate	A DateTime. This is a string attribute that defines the date of manufacture of this item in the fixed format "dd/mm/yyyy". This is an optional attribute.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.

operationalState	<p>A ResourceOperationalStateType.</p> <p>ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values:</p> <ul style="list-style-type: none"> * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
powerState	<p>A String. This defines the current power status of the hardware item. Values include:</p> <p>0: Unknown 1: Not Applicable 2: No Power Applied 3: Full Power Applied 4: Power Save - Normal 5: Power Save - Degraded 6: Power Save - Standby 7: Power Save - Critical 8: Power Save - Low Power Mode 9: Power Save - Unknown 10: Power Cycle 11: Power Warning 12: Power Off.</p>
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.

resourceSpecification	<p>A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.</p>
resourceStatus	<p>A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values:</p> <ul style="list-style-type: none"> * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
serialNumber	A String. This is a string that represents a manufacturer-allocated number used to identify different instances of the same hardware item. The ModelNumber and PartNumber attributes are used to identify different types of hardware items. This is a REQUIRED attribute.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	<p>A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values:</p> <ul style="list-style-type: none"> * idle * active * busy
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

versionNumber	A String. This is a string that identifies the version of this physical resource. This is an optional attribute.
@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.

Resource sub-resource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.

name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resourceSpecification	A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.

resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
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.
	Resource can be instantiated as * LogicalResource * PhysicalResource * ResourceCollection
containedResource	This property is present in subclasses
manufactureDate	This property is present in subclasses
powerState	This property is present in subclasses
serialNumber	This property is present in subclasses
value	This property is present in subclasses
versionNumber	This property is present in subclasses

LogicalResource sub-resource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.

operationalState	<p>A ResourceOperationalStateType.</p> <p>ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values:</p> <ul style="list-style-type: none"> * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	<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>
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	<p>A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.</p>
resourceSpecification	<p>A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.</p>

resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String. The value of the logical resource. E.g '0746712345' for MSISDN's.
@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.

ResourceCollection sub-resource fields

activationFeature	A Feature. Configuration feature.
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administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
containedResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.

operationalState	<p>A ResourceOperationalStateType.</p> <p>ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values:</p> <ul style="list-style-type: none"> * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	<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>
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	<p>A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.</p>
resourceSpecification	<p>A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.</p>

resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
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.

ResourceCollection resource

A collection of Resources handled as one Resource.

Resource model

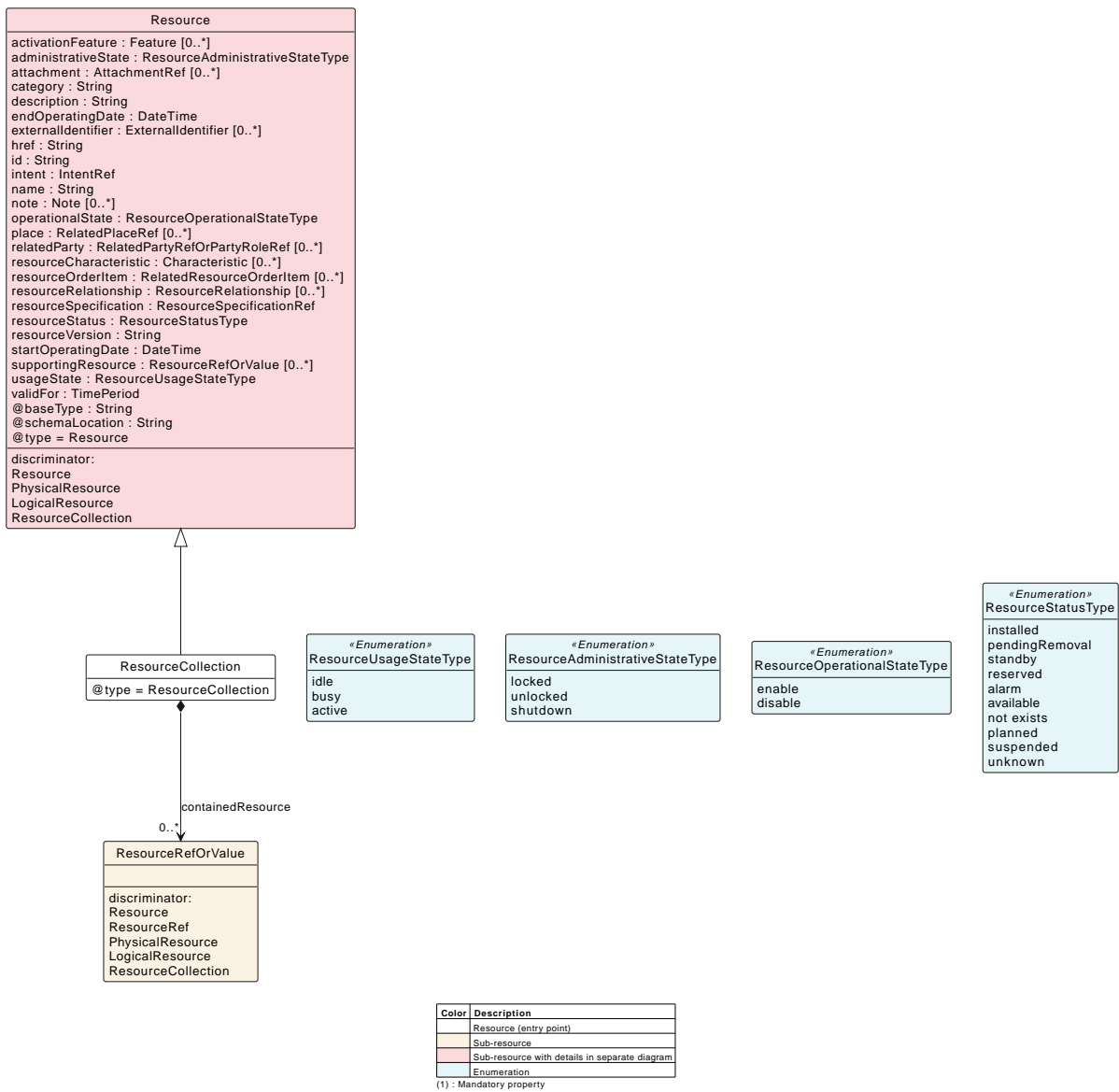


Figure 7 - ResourceCollection

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Figure 8 - ResourceCollection

Field descriptions

ResourceCollection fields

activationFeature	A Feature. Configuration feature.
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administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
containedResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.

operationalState	<p>A ResourceOperationalStateType.</p> <p>ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values:</p> <ul style="list-style-type: none"> * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	<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>
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	<p>A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.</p>
resourceSpecification	<p>A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.</p>

resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
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.

Resource sub-resource fields

activationFeature	A Feature. Configuration feature.
-------------------	-----------------------------------

administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable

place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resourceSpecification	A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.
resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown

resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
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.
	Resource can be instantiated as * LogicalResource * PhysicalResource * ResourceCollection
containedResource	This property is present in subclasses
manufactureDate	This property is present in subclasses
powerState	This property is present in subclasses
serialNumber	This property is present in subclasses
value	This property is present in subclasses
versionNumber	This property is present in subclasses

ResourceRef 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.

PhysicalResource sub-resource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.
manufactureDate	A DateTime. This is a string attribute that defines the date of manufacture of this item in the fixed format "dd/mm/yyyy". This is an optional attribute.

name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
powerState	A String. This defines the current power status of the hardware item. Values include: 0: Unknown 1: Not Applicable 2: No Power Applied 3: Full Power Applied 4: Power Save - Normal 5: Power Save - Degraded 6: Power Save - Standby 7: Power Save - Critical 8: Power Save - Low Power Mode 9: Power Save - Unknown 10: Power Cycle 11: Power Warning 12: Power Off.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.

resourceSpecification	<p>A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.</p>
resourceStatus	<p>A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values:</p> <ul style="list-style-type: none"> * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
serialNumber	A String. This is a string that represents a manufacturer-allocated number used to identify different instances of the same hardware item. The ModelNumber and PartNumber attributes are used to identify different types of hardware items. This is a REQUIRED attribute.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	<p>A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values:</p> <ul style="list-style-type: none"> * idle * active * busy
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

versionNumber	A String. This is a string that identifies the version of this physical resource. This is an optional attribute.
@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.

LogicalResource sub-resource fields

activationFeature	A Feature. Configuration feature.
administrativeState	A ResourceAdministrativeStateType. ResourceAdministrativeStateType enumerations; values defined by ITU X.731: 'locked': The resource is administratively prohibited from performing services for its users; 'shutdown': Use of the resource is administratively permitted to existing instances of use only. While the system remains in the shutting down state the manager may at any time cause the managed object to revert to the unlocked state; 'unlocked': The resource is administratively permitted to perform services for its users. This is independent of its inherent operability. ENUMERATED with values: * locked * unlocked * shutdown
attachment	An AttachmentRef. Attachment reference. An attachment complements the description of an element (for instance a product) through video, pictures.
category	A String. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
description	A String. Free-text description of the resource.
endOperatingDate	A DateTime. A date time(DateTime). The date till the resource is operating.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRef. Intent reference, for when Intent is used by other entities.

name	A String. The name of the resource.
note	A Note. Extra information about a given entity.
operationalState	A ResourceOperationalStateType. ResourceOperationalStateType enumerations; values defined by ITU X.731: 'disable': The resource is totally inoperable and unable to provide service to the user(s); 'enable': The resource is partially or fully operable and available for use. ENUMERATED with values: * enable * disable
place	A RelatedPlaceRef. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRef class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
resourceCharacteristic	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...
resourceOrderItem	A RelatedResourceOrderItem. RelatedResourceOrderItem (a ResourceOrder item) .The resource order item which triggered resource creation/change/termination.
resourceRelationship	A ResourceRelationship. Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
resourceSpecification	A ResourceSpecificationRef. Resources are physical or non-physical components (or some combination of these) within an enterprise's infrastructure or inventory. They are typically consumed or used by services (for example a physical port assigned to a service) or contribute to the realization of a Product (for example, a SIM card). They can be drawn from the Application, Computing and Network domains, and include, for example, Network Elements, software, IT systems, content and information, and technology components. A ResourceSpecification is an abstract base class for representing a generic means for implementing a particular type of Resource. In essence, a ResourceSpecification defines the common attributes and relationships of a set of related Resources, while Resource defines a specific instance that is based on a particular ResourceSpecification.

resourceStatus	A ResourceStatusType. ResourceStatusType enumerations. ENUMERATED with values: * alarm * available * installed * not exists * pendingRemoval * planned * reserved * standby * suspended * unknown
resourceVersion	A String. A field that identifies the specific version of an instance of a resource.
startOperatingDate	A DateTime. A date time(DateTime). The date from which the resource is operating.
supportingResource	A ResourceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Resource entity and not the ResourceRefOrValue class itself.
usageState	A ResourceUsageStateType. ResourceUsageStateType enumerations; values defined by ITU X.731: 'idle': The resource is not currently in use; 'active': The resource is in use, and has sufficient spare operating capacity to provide for additional users simultaneously; 'busy': The resource is in use, but it has no spare operating capacity to provide for additional users at this instant. ENUMERATED with values: * idle * active * busy
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
value	A String. The value of the logical resource. E.g '0746712345' for MSISDN's.
@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.

Notification Resource Models

4 notifications are defined for this API.

Notifications related to Resource:

- Create Event
- Delete Event
- Attribute Value Change 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 sub class 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).

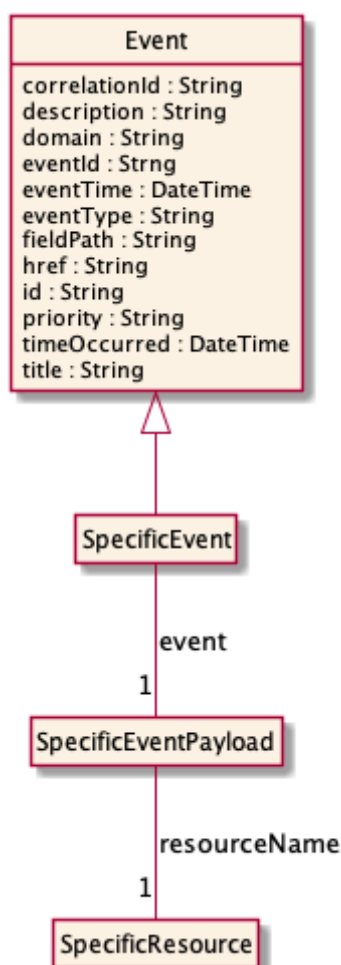


Figure 9 Notification Pattern

Resource

Create Event

Message example for ResourceCreateEvent event

```

Content-Type: application/json

{
  "correlationId": "73d0c149-b4e0",
  "description": "ResourceCreateEvent illustration",
  "domain": "Commercial",
  < >
}
  
```

```

"eventId": "411f-a2c0-bd4519deaaa2",
"eventTime": "2022-08-25T12:19:41.419Z",
"eventType": "ResourceCreateEvent",
"priority": "4",
"timeOccurred": "2022-08-25T12:19:34.183Z",
"title": "ResourceCreateEvent",
"event": {
  "resource": {
    "id": "8044",
    "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",
    "description": "This is a Router resource with the category Router and with a
reserved resourceStatus for organisations.",
    "category": "Router",
    "startOperatingDate": "2020-03-04T00:00:00.000Z",
    "endOperatingDate": "2023-09-04T08:00:00.000Z",
    "administrativeState": "locked",
    "operationalState": "enable",
    "usageState": "active",
    "resourceStatus": "reserved",
    "resourceVersion": "v2",
    "@type": "Resource",
    "relatedParty": [
      {
        "role": "user",
        "@type": "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole": {
          "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
          "id": "456",
          "name": "John Doe",
          "@type": "PartyRef",
          "@referredType": "Individual"
        }
      }
    ],
    "note": [
      {
        "text": "something about this resource",
        "@type": "Note"
      }
    ],
    "place": [
      {
        "role": "installationAddress",
        "@type": "RelatedPlaceRef",
        "place": {
          "id": "9912",
          "href":
"http://host:port/geographicAddressManagement/v5/geographicAddress/9912",
          "@type": "PlaceRef",
          "@referredType": "GeographicAddress"
        }
      }
    ],
    "resourceRelationship": [
      {
        "relationshipType": "contains",
        "@type": "ResourceRelationship",
        "resource": {
          "id": "44",
          "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
          "@type": "ResourceRef"
        }
      }
    ]
  }
}

```

```

    {
      "relationshipType": "contains",
      "@type": "ResourceRelationship",
      "resource": {
        "id": "45",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
        "@type": "ResourceRef"
      }
    }
  ],
  "resourceSpecification": {
    "id": "4",
    "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
    "@type": "ResourceSpecificationRef",
    "@referredType": "ResourceSpecification"
  },
  "externalIdentifier": [
    {
      "externalIdentifierType": "Supplier-Router-Id",
      "id": "XYZ-1174-B",
      "owner": "Supplier-A",
      "@type": "ExternalIdentifier"
    }
  ],
  "supportingResource": [
    {
      "id": "918273",
      "href": "
http://server:port/resourceInventoryManagement/v5/resource/918273",
      "@type": "ResourceRef"
    }
  ],
  "resourceCharacteristic": [
    {
      "name": "casing size",
      "valueType": "String",
      "value": "19\\\"",
      "@type": "StringCharacteristic"
    }
  ],
  "resourceOrderItem": [
    {
      "role": "supplier purchase",
      "itemAction": "add",
      "itemId": "1",
      "resourceOrderId": "66588438-2",
      "resourceOrderHref": "
http://server:port/resourceOrderManagement/v5/resourceOrder/66588438-2",
      "@type": "RelatedResourceOrderItem",
      "@referredType": "ResourceOrderItem"
    }
  ],
  "attachment": [
    {
      "id": "D-2024-05-13-X47",
      "href": "http://server:port/documentManagement/v5/document/D-2024-05-13-
X47",
      "description": "delivery note",
      "@type": "AttachmentRef",
      "@referredType": "Document"
    }
  ]
}

```

```

    }
  },
  "reportingSystem": {
    "id": "445",
    "name": "APP-655",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "62",
    "name": "APP-182",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "ResourceCreateEvent"
}

```

Delete Event

Message example for ResourceDeleteEvent event

Content-Type: application/json

```

{
  "correlationId": "dbd2cdb0-3631",
  "description": "ResourceDeleteEvent illustration",
  "domain": "Commercial",
  "eventId": "403f-810a-354d44291cc0",
  "eventTime": "2022-08-25T12:19:41.451Z",
  "eventType": "ResourceDeleteEvent",
  "priority": "1",
  "timeOccurred": "2022-08-25T12:19:36.643Z",
  "title": "ResourceDeleteEvent",
  "event": {
    "resource": {
      "id": "44",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
      "@type": "Resource"
    }
  },
  "reportingSystem": {
    "id": "445",
    "name": "APP-655",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "62",
    "name": "APP-182",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "ResourceDeleteEvent"
}

```

Attribute Value Change Event

Message example for ResourceAttributeValueChangeEvent event

```
Content-Type: application/json

{
  "correlationId": "da76162e-c8ca",
  "description": "ResourceAttributeValueChangeEvent illustration",
  "domain": "Commercial",
  "eventId": "4d1f-ac04-980d628aabcc",
  "eventTime": "2022-08-25T12:19:41.429Z",
  "eventType": "ResourceAttributeValueChangeEvent",
  "priority": "3",
  "timeOccurred": "2022-08-25T12:19:38.049Z",
  "title": "ResourceAttributeValueChangeEvent",
  "event": {
    "resource": {
      "id": "44",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
      "name": "Port 1",
      "@type": "Resource"
    }
  },
  "reportingSystem": {
    "id": "445",
    "name": "APP-655",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "62",
    "name": "APP-182",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "ResourceAttributeValueChangeEvent"
}
```

State Change Event

Message example for ResourceStateChangeEvent event

```
Content-Type: application/json

{
  "correlationId": "c9ac271e-1cf8",
  "description": "ResourceStateChangeEvent illustration",
  "domain": "Commercial",
  "eventId": "48cf-bf1d-53aec2ec89f8",
  "eventTime": "2022-08-25T12:19:41.440Z",
  "eventType": "ResourceStateChangeEvent",
  "priority": "4",
  "timeOccurred": "2022-08-25T12:19:38.764Z",
  "title": "ResourceStateChangeEvent",
  "event": {
    "resource": {
```

```
    "id": "44",
    "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
    "operationalState": "disable",
    "@type": "Resource"
  },
  "reportingSystem": {
    "id": "445",
    "name": "APP-655",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "62",
    "name": "APP-182",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "ResourceStateChangeEvent"
}
```

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 Resource

List or find Resource objects

GET /resource?fields=...

Description

This operation list Resource 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

Here's an example of a request for retrieving a list of Resource(s). The given criteria is the category (Router) and state (active).

Request

```
GET /resource?category=Router&usageState=active
Content-Type: application/json
```

Response

200

```
[
  {
    "id": "8044",
    "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",
    "description": "This is a Router resource with the category Router and with a reserved resourceStatus for organisations.",
    "category": "Router",
    "startOperatingDate": "2020-03-04T00:00:00.000Z",
    "endOperatingDate": "2023-09-04T08:00:00.000Z",
    "administrativeState": "locked",
    "operationalState": "enable",
    "usageState": "active",
    "resourceStatus": "reserved",
    "version": "v2",
    "@type": "Resource",
    "relatedParty": [
      {
        "role": "user",
        "@type": "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole": {
          "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
          "id": "456",
          "name": "John Doe",
          "@type": "PartyRef",
          "@referredType": "Individual"
        }
      }
    ],
    "note": [
      {
        "text": "something about this resource",
        "@type": "Note"
      }
    ],
    "place": [
      {
        "role": "installationAddress",
        "@type": "RelatedPlaceRef",
        "place": {
          "id": "9912",
          "href": "https://host:port/geographicAddressManagement/v5/geographicAddress/9912",
          "@type": "PlaceRef",
          "@referredType": "GeographicAddress"
        }
      }
    ],
    "resourceRelationship": [
      {
        "relationshipType": "contains",
        "@type": "ResourceRelationship",
        "resource": {
          "id": "44",
          "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
          "@type": "ResourceRef"
        }
      },
      {
        "relationshipType": "contains",
        "@type": "ResourceRelationship",
```

```

    "resource": {
      "id": "45",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
      "@type": "ResourceRef"
    }
  ],
  "resourceSpecification": {
    "id": "4",
    "href": "http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
    "@type": "ResourceSpecificationRef",
    "@referredType": "ResourceSpecification"
  },
  "externalIdentifier": [
    {
      "externalIdentifierType": "Supplier-Router-Id",
      "id": "XYZ-1174-B",
      "owner": "Supplier-A",
      "@type": "ExternalIdentifier"
    }
  ],
  "supportingResource": [
    {
      "id": "918273",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/918273",
      "@type": "ResourceRef"
    }
  ],
  "resourceCharacteristic": [
    {
      "name": "casing size",
      "valueType": "String",
      "value": "19\"",
      "@type": "StringCharacteristic"
    }
  ],
  "resourceOrderItem": [
    {
      "role": "supplier purchase",
      "itemAction": "add",
      "itemId": "1",
      "resourceOrderId": "66588438-2",
      "resourceOrderHref": "http://server:port/resourceOrderManagement/v5/resourceOrder/66588438-2",
      "@type": "RelatedResourceOrderItem",
      "@referredType": "ResourceOrderItem"
    }
  ],
  "attachment": [
    {
      "id": "D-2024-05-13-X47",
      "href": "http://server:port/documentManagement/v5/document/D-2024-05-13-X47",
      "description": "delivery note",
      "@type": "AttachmentRef",
      "@referredType": "Document"
    }
  ]
}
]

```

Retrieves a Resource by ID

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

Description

This operation retrieves a Resource 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

Here's an example of a request for retrieving a Resource that contains other Resources. The given criteria is the Resource id 8044.

Request

```
GET /resource/8044
Content-Type: application/json
```

Response

```
200

{
  "id": "8044",
  "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",
  "description": "This is a Router resource with the category Router and with a reserved resourceStatus for organisations.",
  "category": "Router",
  "startOperatingDate": "2020-08-04T00:00:00.000Z",
  "endOperatingDate": "2023-09-04T08:00:00.000Z",
  "administrativeState": "locked",
  "operationalState": "enable",
  "usageState": "active",
  "resourceStatus": "reserved",
  "version": "v2",
  "@type": "Resource",
  "relatedParty": [
    {
      "role": "user",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
        "id": "456",
        "name": "John Doe",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    }
  ],
  "note": [
    {
      "text": "something about this resource",
      "@type": "Note"
    }
  ],
}
```

```

"place": [
  {
    "role": "installationAddress",
    "@type": "RelatedPlaceRef",
    "place": {
      "id": "9912",
      "href":
"http://host:port/geographicAddressManagement/v5/geographicAddress/9912",
      "@type": "PlaceRef",
      "@referredType": "GeographicAddress"
    }
  }
],
"resourceRelationship": [
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "44",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
      "@type": "ResourceRef"
    }
  },
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "45",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
      "@type": "ResourceRef"
    }
  }
],
"resourceSpecification": {
  "id": "4",
  "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
  "@type": "ResourceSpecificationRef",
  "@referredType": "ResourceSpecification"
},
"externalIdentifier": [
  {
    "externalIdentifierType": "Supplier-Router-Id",
    "id": "XYZ-1174-B",
    "owner": "Supplier-A",
    "@type": "ExternalIdentifier"
  }
],
"supportingResource": [
  {
    "id": "918273",
    "href": "http://server:port/resourceInventoryManagement/v5/resource/918273",
    "@type": "ResourceRef"
  }
],
"resourceCharacteristic": [
  {
    "name": "casing size",
    "valueType": "String",
    "value": "19\"",
    "@type": "StringCharacteristic"
  }
]

```

```
"resourceOrderItem": [
  {
    "role": "supplier purchase",
    "itemAction": "add",
    "itemId": "1",
    "resourceOrderId": "66588438-2",
    "resourceOrderHref":
"http://server:port/resourceOrderManagement/v5/resourceOrder/66588438-2",
    "@type": "RelatedResourceOrderItem",
    "@referredType": "ResourceOrderItem"
  }
],
"attachment": [
  {
    "id": "D-2024-05-13-X47",
    "href": "http://server:port/documentManagement/v5/document/D-2024-05-13-X47",
    "description": "delivery note",
    "@type": "AttachmentRef",
    "@referredType": "Document"
  }
]
}
```

Here's an example of a request for retrieving a Resource. The given criteria is the Resource id 8045.

Request

```
GET /resource/8045
Content-Type: application/json
```

Response

```
200

{
  "id": "8045",
  "href": "http://server:port/resourceInventoryManagement/v5/resource/8045",
  "category": "Router",
  "startOperatingDate": "2020-08-04T00:00:00.000Z",
  "administrativeState": "locked",
  "operationalState": "enable",
  "usageState": "active",
  "resourceStatus": "reserved",
  "version": "v2",
  "@type": "Resource",
  "resourceCharacteristic": [
    {
      "name": "premiumValue",
      "valueType": "string",
      "value": "gold",
      "@type": "StringCharacteristic"
    }
  ],
  "resourceSpecification": {
    "id": "4",
    "href":
```

```
"http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
"@type": "ResourceSpecificationRef",
"@referredType": "ResourceSpecification"
}
}
```

Creates a Resource

POST /resource?fields=...

Description

This operation creates a Resource entity.

Mandatory Attributes

Mandatory Attributes	Rule
@type	

Usage samples

Creation of a new Resource (a Router) containing Sub-Resources (two Ports) via a POST operation, assuming the 'Port' Resources (ids 44 and 45) have already been created before.

Request

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

{
  "category": "Router",
  "name": "Name of the resource",
  "startOperatingDate": "2020-08-04T00:00:00.000Z",
  "administrativeState": "locked",
  "operationalState": "enable",
  "usageState": "active",
  "resourceStatus": "reserved",
  "version": "v2",
  "@type": "Resource",
  "relatedParty": [
    {
      "role": "user",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
        "id": "456",
        "name": "John Doe",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    }
  ],
  "note": [
    {
      "text": "router installed at the user's premise",
      "@type": "Note"
    }
  ]
}
```

```

    }
  ],
  "place": [
    {
      "role": "installationAddress",
      "@type": "RelatedPlaceRef",
      "place": {
        "id": "9912",
        "href":
"http://host:port/geographicAddressManagement/v5/geographicAddress/9912",
        "@type": "PlaceRef",
        "@referredType": "GeographicAddress"
      }
    }
  ],
  "resourceRelationship": [
    {
      "relationshipType": "contains",
      "@type": "ResourceRelationship",
      "resource": {
        "id": "44",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
        "@type": "Resource"
      }
    },
    {
      "relationshipType": "contains",
      "@type": "ResourceRelationship",
      "resource": {
        "id": "45",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
        "@type": "Resource"
      }
    }
  ],
  "resourceSpecification": {
    "id": "4",
    "href":
"http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
    "@type": "ResourceSpecificationRef",
    "@referredType": "ResourceSpecification"
  }
}

```

Response

```

201

{
  "id": "8044",
  "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",
  "category": "Router",
  "name": "Name of the resource",
  "startOperatingDate": "2020-08-04T00:00:00.000Z",
  "administrativeState": "locked",
  "operationalState": "enable",
  "usageState": "active",
  "resourceStatus": "reserved",
  "version": "v2",
  "@type": "Resource",

```

```

"relatedParty": [
  {
    "role": "user",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
      "id": "456",
      "name": "John Doe",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  }
],
"note": [
  {
    "text": "router installed at the user's premise",
    "@type": "Note"
  }
],
"place": [
  {
    "role": "installationAddress",
    "@type": "RelatedPlaceRef",
    "place": {
      "id": "9912",
      "href":
"http://host:port/geographicAddressManagement/v5/geographicAddress/9912",
      "@type": "PlaceRef",
      "@referredType": "GeographicAddress"
    }
  }
],
"resourceRelationship": [
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "44",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
      "@type": "Resource"
    }
  },
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "45",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
      "@type": "Resource"
    }
  }
],
"resourceSpecification": {
  "id": "4",
  "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
  "@type": "ResourceSpecificationRef",
  "@referredType": "ResourceSpecification"
},
"externalIdentifier": [
  {
    "externalIdentifierType": "Supplier-Router-Id",
    "id": "XYZ-1174-B",

```



```

    "owner": "Supplier-A",
    "@type": "ExternalIdentifier"
  }
],
"supportingResource": [
  {
    "id": "918273",
    "href": "http://server:port/resourceInventoryManagement/v5/resource/918273",
    "@type": "ResourceRef"
  }
],
"resourceCharacteristic": [
  {
    "name": "casing size",
    "valueType": "String",
    "value": "19\\\"",
    "@type": "StringCharacteristic"
  }
],
"resourceOrderItem": [
  {
    "role": "supplier purchase",
    "itemAction": "add",
    "itemId": "1",
    "resourceOrderId": "66588438-2",
    "resourceOrderHref":
"http://server:port/resourceOrderManagement/v5/resourceOrder/66588438-2",
    "@type": "RelatedResourceOrderItem",
    "@referredType": "ResourceOrderItem"
  }
],
"attachment": [
  {
    "id": "D-2024-05-13-X47",
    "href": "http://server:port/documentManagement/v5/document/D-2024-05-13-X47",
    "description": "delivery note",
    "@type": "AttachmentRef",
    "@referredType": "Document"
  }
]
}

```

Creation of a new Resource with POST operation

Request

```

POST /resource
Content-Type: application/json

{
  "category": "Router",
  "name": "Name of the resource",
  "startOperatingDate": "2020-08-04T00:00:00.000Z",
  "administrativeState": "locked",
  "operationalState": "enable",
  "usageState": "active",
  "resourceStatus": "reserved",
  "version": "v2",
  "@type": "Resource",
  "relatedParty": [

```

```

{
  "role": "user",
  "@type": "RelatedPartyRefOrPartyRoleRef",
  "partyOrPartyRole": {
    "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
    "id": "456",
    "name": "John Doe",
    "@type": "PartyRef",
    "@referredType": "Individual"
  }
},
],
"note": [
  {
    "text": "router installed at the user's premise",
    "@type": "Note"
  }
],
"place": [
  {
    "role": "installationAddress",
    "@type": "RelatedPlaceRef",
    "place": {
      "id": "9912",
      "href": "https://host:port/geographicAddressManagement/v5/geographicAddress/9912",
      "@type": "PlaceRef",
      "@referredType": "GeographicAddress"
    }
  }
],
"resourceRelationship": [
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "44",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
      "@type": "Resource"
    }
  },
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "45",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
      "@type": "Resource"
    }
  }
],
"resourceSpecification": {
  "id": "4",
  "href": "http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
  "@type": "ResourceSpecificationRef",
  "@referredType": "ResourceSpecification"
}
}

```

Response

201

```

{
  "id": "8044",
  "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",
  "category": "Router",
  "name": "Name of the resource",
  "startOperatingDate": "2020-08-04T00:00:00.000Z",
  "administrativeState": "locked",
  "operationalState": "enable",
  "usageState": "active",
  "resourceStatus": "reserved",
  "version": "v2",
  "@type": "Resource",
  "relatedParty": [
    {
      "role": "user",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
        "id": "456",
        "name": "John Doe",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    }
  ],
  "note": [
    {
      "text": "router installed at the user's premise",
      "@type": "Note"
    }
  ],
  "place": [
    {
      "role": "installationAddress",
      "@type": "RelatedPlaceRef",
      "place": {
        "id": "9912",
        "href":
"http://host:port/geographicAddressManagement/v5/geographicAddress/9912",
        "@type": "PlaceRef",
        "@referredType": "GeographicAddress"
      }
    }
  ],
  "resourceRelationship": [
    {
      "relationshipType": "contains",
      "@type": "ResourceRelationship",
      "resource": {
        "id": "44",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
        "@type": "Resource"
      }
    },
    {
      "relationshipType": "contains",
      "@type": "ResourceRelationship",
      "resource": {
        "id": "45",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/45",

```

```

        "@type": "Resource"
      }
    ],
    "resourceSpecification": {
      "id": "4",
      "href": "http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
      "@type": "ResourceSpecificationRef",
      "@referredType": "ResourceSpecification"
    },
    "externalIdentifier": [
      {
        "externalIdentifierType": "Supplier-Router-Id",
        "id": "XYZ-1174-B",
        "owner": "Supplier-A",
        "@type": "ExternalIdentifier"
      }
    ],
    "supportingResource": [
      {
        "id": "918273",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/918273",
        "@type": "ResourceRef"
      }
    ],
    "resourceCharacteristic": [
      {
        "name": "casing size",
        "valueType": "String",
        "value": "19\"",
        "@type": "StringCharacteristic"
      }
    ],
    "resourceOrderItem": [
      {
        "role": "supplier purchase",
        "itemAction": "add",
        "itemId": "1",
        "resourceOrderId": "66588438-2",
        "resourceOrderHref": "http://server:port/resourceOrderManagement/v5/resourceOrder/66588438-2",
        "@type": "RelatedResourceOrderItem",
        "@referredType": "ResourceOrderItem"
      }
    ],
    "attachment": [
      {
        "id": "D-2024-05-13-X47",
        "href": "http://server:port/documentManagement/v5/document/D-2024-05-13-X47",
        "description": "delivery note",
        "@type": "AttachmentRef",
        "@referredType": "Document"
      }
    ]
  ]
}

```

Updates partially a Resource

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

Description

This operation allows partial updates of a Resource 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
activationFeature	
administrativeState	
attachment	
category	
description	
endOperatingDate	
externalIdentifier	
intent	
name	
note	
operationalState	
place	
relatedParty	
resourceCharacteristic	
resourceOrderItem	
resourceRelationship	
resourceSpecification	
resourceStatus	
resourceVersion	
startOperatingDate	

Patchable Attributes	Rule
supportingResource	
usageState	
validFor	

Usage samples

Update a Resource using json-patch-query+json

Request

```
PATCH /resource/{id}
Content-Type: application/json-patch-query+json

[
  {
    "op": "replace",
    "path": ".note[?(@.date=='2024-05-18T010:54:42.690Z')]",
    "value": {
      "text": "Port 1 configured"
    }
  }
]
```

Response

```
200

{
  "id": "8044",
  "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",
  "category": "Router",
  "startOperatingDate": "2020-08-04T00:00:00.000Z",
  "administrativeState": "unlocked",
  "operationalState": "enable",
  "usageState": "active",
  "resourceStatus": "reserved",
  "version": "v2",
  "@type": "Resource",
  "relatedParty": [
    {
      "role": "user",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
        "id": "456",
        "name": "John Doe",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    }
  ],
  "note": [
    {
      "text": "router installed at the user's premise",

```

```

    "@type": "Note"
  },
  {
    "text": "Port 1 configured",
    "author": "Maria Doe",
    "date": "2024-05-18T010:54:42.690Z",
    "@type": "Note"
  }
],
"place": [
  {
    "role": "installationAddress",
    "@type": "RelatedPlaceRef",
    "place": {
      "id": "9912",
      "href":
"http://host:port/geographicAddressManagement/v5/geographicAddress/9912",
      "@type": "PlaceRef",
      "@referredType": "GeographicAddress"
    }
  }
],
"resourceRelationship": [
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "44",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
      "description": "This is Port 1 contained in the Router.",
      "category": "Port",
      "@type": "Resource",
      "resourceSpecification": {
        "id": "1004",
        "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
        "@type": "ResourceSpecificationRef",
        "@referredType": "ResourceSpecification"
      }
    }
  },
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "45",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
      "description": "This is Port 2 contained in the Router.",
      "category": "Port",
      "@type": "Resource",
      "resourceSpecification": {
        "id": "1004",
        "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
        "@type": "ResourceSpecificationRef",
        "@referredType": "ResourceSpecification"
      }
    }
  },
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {

```

```

        "id": "56",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/56",
        "description": "This is Port 15 contained in the Router.",
        "category": "Port",
        "@type": "Resource",
        "resourceSpecification": {
            "id": "1004",
            "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
            "@type": "ResourceSpecificationRef",
            "@referredType": "ResourceSpecification"
        }
    },
    "resourceSpecification": {
        "id": "4",
        "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
        "@type": "ResourceSpecificationRef",
        "@referredType": "ResourceSpecification"
    },
    "externalIdentifier": [
        {
            "externalIdentifierType": "Supplier-Router-Id",
            "id": "XYZ-1174-B",
            "owner": "Supplier-A",
            "@type": "ExternalIdentifier"
        }
    ],
    "supportingResource": [
        {
            "id": "918273",
            "href": "http://server:port/resourceInventoryManagement/v5/resource/918273",
            "@type": "ResourceRef"
        }
    ],
    "resourceCharacteristic": [
        {
            "name": "casing size",
            "valueType": "String",
            "value": "19\\",
            "@type": "StringCharacteristic"
        }
    ],
    "resourceOrderItem": [
        {
            "role": "supplier purchase",
            "itemAction": "add",
            "itemId": "1",
            "resourceOrderId": "66588438-2",
            "resourceOrderHref":
"http://server:port/resourceOrderManagement/v5/resourceOrder/66588438-2",
            "@type": "RelatedResourceOrderItem",
            "@referredType": "ResourceOrderItem"
        }
    ],
    "attachment": [
        {
            "id": "D-2024-05-13-X47",
            "href": "http://server:port/documentManagement/v5/document/D-2024-05-13-X47",
            "description": "delivery note",
            "@type": "AttachmentRef",

```



```

    "@referredType": "Document"
  }
]
}

```

Update a Resource using json-patch

Request

```

PATCH /resource/{id}
Content-Type: application/json-patch+json

[
  {
    "op": "replace",
    "path": "/administrativeState",
    "value": "unlocked"
  },
  {
    "op": "add",
    "path": "/resourceRelationship",
    "value": {
      "relationshipType": "contains",
      "@type": "ResourceRelationship",
      "resource": {
        "description": "This is Port 15 contained in the Router.",
        "category": "Port",
        "@type": "Resource",
        "resourceSpecification": {
          "id": "1004",
          "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
          "@type": "ResourceSpecificationRef",
          "@referredType": "ResourceSpecification"
        }
      }
    }
  }
]

```

Response

```

200

{
  "id": "8044",
  "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",
  "category": "Router",
  "startOperatingDate": "2020-08-04T00:00:00.000Z",
  "administrativeState": "unlocked",
  "operationalState": "enable",
  "usageState": "active",
  "resourceStatus": "reserved",
  "version": "v2",
  "@type": "Resource",
  "relatedParty": [
    {

```

```

    "role": "user",
    "@type": "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole": {
      "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
      "id": "456",
      "name": "John Doe",
      "@type": "PartyRef",
      "@referredType": "Individual"
    }
  },
  ],
  "note": [
    {
      "text": "router installed at the user's premise",
      "@type": "Note"
    }
  ],
  "place": [
    {
      "role": "installationAddress",
      "@type": "RelatedPlaceRef",
      "place": {
        "id": "9912",
        "href":
"http://host:port/geographicAddressManagement/v5/geographicAddress/9912",
        "@type": "PlaceRef",
        "@referredType": "GeographicAddress"
      }
    }
  ],
  "resourceRelationship": [
    {
      "relationshipType": "contains",
      "@type": "ResourceRelationship",
      "resource": {
        "id": "44",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
        "description": "This is Port 1 contained in the Router.",
        "category": "Port",
        "@type": "Resource",
        "resourceSpecification": {
          "id": "1004",
          "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
          "@type": "ResourceSpecificationRef",
          "@referredType": "ResourceSpecification"
        }
      }
    },
    {
      "relationshipType": "contains",
      "@type": "ResourceRelationship",
      "resource": {
        "id": "45",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
        "description": "This is Port 2 contained in the Router.",
        "category": "Port",
        "@type": "Resource",
        "resourceSpecification": {
          "id": "1004",
          "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
          "@type": "ResourceSpecificationRef",

```

```

        "@referredType": "ResourceSpecification"
    }
}
},
{
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
        "id": "56",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/56",
        "description": "This is Port 15 contained in the Router.",
        "category": "Port",
        "@type": "Resource",
        "resourceSpecification": {
            "id": "1004",
            "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
            "@type": "ResourceSpecificationRef",
            "@referredType": "ResourceSpecification"
        }
    }
}
],
"resourceSpecification": {
    "id": "4",
    "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
    "@type": "ResourceSpecificationRef",
    "@referredType": "ResourceSpecification"
}
}

```

PATCH Resource request leveraging merge-patch+json application example

Request

```

PATCH /resource/{id}
Content-Type: application/merge-patch+json

{
    "@type": "Resource",
    "place": [
        {
            "@type": "RelatedPlaceRef",
            "role": "installationAddress",
            "place": {
                "id": "9012",
                "href":
"https://host:port/geographicAddressManagement/v5/geographicAddress/9012",
                "@type": "PlaceRef",
                "@referredType": "GeographicAddress"
            }
        }
    ]
}

```

Response

200

```

{
  "id": "8044",
  "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",
  "category": "Router",
  "startOperatingDate": "2020-08-04T00:00:00.000Z",
  "administrativeState": "locked",
  "operationalState": "enable",
  "usageState": "active",
  "resourceStatus": "reserved",
  "version": "v2",
  "@type": "Resource",
  "relatedParty": [
    {
      "role": "user",
      "@type": "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole": {
        "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",
        "id": "456",
        "name": "John Doe",
        "@type": "PartyRef",
        "@referredType": "Individual"
      }
    }
  ],
  "note": [
    {
      "text": "router installed at the user's premise",
      "@type": "Note"
    }
  ],
  "place": [
    {
      "role": "installationAddress",
      "@type": "RelatedPlaceRef",
      "place": {
        "id": "9012",
        "href":
"http://host:port/geographicAddressManagement/v5/geographicAddress/9012",
        "@type": "PlaceRef",
        "@referredType": "GeographicAddress"
      }
    }
  ],
  "resourceRelationship": [
    {
      "relationshipType": "contains",
      "@type": "ResourceRelationship",
      "resource": {
        "id": "44",
        "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
        "description": "This is Port 1 contained in the Router.",
        "category": "Port",
        "@type": "Resource",
        "resourceSpecification": {
          "id": "1004",
          "href":
"http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
          "@type": "ResourceSpecificationRef",
          "@referredType": "ResourceSpecification"
        }
      }
    }
  ]
}

```

```

    }
  },
  {
    "relationshipType": "contains",
    "@type": "ResourceRelationship",
    "resource": {
      "id": "45",
      "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
      "description": "This is Port 2 contained in the Router.",
      "category": "Port",
      "@type": "Resource",
      "resourceSpecification": {
        "id": "1004",
        "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
        "@type": "ResourceSpecificationRef",
        "@referredType": "ResourceSpecification"
      }
    }
  }
],
"resourceSpecification": {
  "id": "4",
  "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
  "@type": "ResourceSpecificationRef",
  "@referredType": "ResourceSpecification"
},
"externalIdentifier": [
  {
    "externalIdentifierType": "Supplier-Router-Id",
    "id": "XYZ-1174-B",
    "owner": "Supplier-A",
    "@type": "ExternalIdentifier"
  }
],
"supportingResource": [
  {
    "id": "918273",
    "href": "http://server:port/resourceInventoryManagement/v5/resource/918273",
    "@type": "ResourceRef"
  }
],
"resourceCharacteristic": [
  {
    "name": "casing size",
    "valueType": "String",
    "value": "19\"",
    "@type": "StringCharacteristic"
  }
],
"resourceOrderItem": [
  {
    "role": "supplier purchase",
    "itemAction": "add",
    "itemId": "1",
    "resourceOrderId": "66588438-2",
    "resourceOrderHref":
"http://server:port/resourceOrderManagement/v5/resourceOrder/66588438-2",
    "@type": "RelatedResourceOrderItem",
    "@referredType": "ResourceOrderItem"
  }
]
],

```

```
"attachment": [  
  {  
    "id": "D-2024-05-13-X47",  
    "href": "http://server:port/documentManagement/v5/document/D-2024-05-13-X47",  
    "description": "delivery note",  
    "@type": "AttachmentRef",  
    "@referredType": "Document"  
  }  
]  
}
```

PATCH Resource request leveraging json application example

Request

```
PATCH /resource/{id}  
Content-Type: application/json  
  
{  
  "@type": "Resource",  
  "place": [  
    {  
      "@type": "RelatedPlaceRef",  
      "role": "installationAddress",  
      "place": {  
        "id": "9012",  
        "href":  
"https://host:port/geographicAddressManagement/v5/geographicAddress/9012",  
        "@type": "PlaceRef",  
        "@referredType": "GeographicAddress"  
      }  
    }  
  ]  
}
```

Response

```
200  
  
{  
  "id": "8044",  
  "href": "http://server:port/resourceInventoryManagement/v5/resource/8044",  
  "category": "Router",  
  "startOperatingDate": "2020-08-04T00:00:00.000Z",  
  "administrativeState": "locked",  
  "operationalState": "enable",  
  "usageState": "active",  
  "resourceStatus": "reserved",  
  "version": "v2",  
  "@type": "Resource",  
  "relatedParty": [  
    {  
      "role": "user",  
      "@type": "RelatedPartyRefOrPartyRoleRef",  
      "partyOrPartyRole": {  
        "href": "https://server:port/tmf-api/partyManagement/v5/individual/456",  
        "id": "456",  
      }  
    }  
  ]  
}
```

```

        "name": "John Doe",
        "@type": "PartyRef",
        "@referredType": "Individual"
    }
},
"note": [
    {
        "text": "router installed at the user's premise",
        "@type": "Note"
    }
],
"place": [
    {
        "role": "installationAddress",
        "@type": "RelatedPlaceRef",
        "place": {
            "id": "9012",
            "href":
"http://host:port/geographicAddressManagement/v5/geographicAddress/9012",
            "@type": "PlaceRef",
            "@referredType": "GeographicAddress"
        }
    }
],
"resourceRelationship": [
    {
        "relationshipType": "contains",
        "@type": "ResourceRelationship",
        "resource": {
            "id": "44",
            "href": "http://server:port/resourceInventoryManagement/v5/resource/44",
            "description": "This is Port 1 contained in the Router.",
            "category": "Port",
            "@type": "Resource",
            "resourceSpecification": {
                "id": "1004",
                "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
                "@type": "ResourceSpecificationRef",
                "@referredType": "ResourceSpecification"
            }
        }
    },
    {
        "relationshipType": "contains",
        "@type": "ResourceRelationship",
        "resource": {
            "id": "45",
            "href": "http://server:port/resourceInventoryManagement/v5/resource/45",
            "description": "This is Port 2 contained in the Router.",
            "category": "Port",
            "@type": "Resource",
            "resourceSpecification": {
                "id": "1004",
                "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/1004",
                "@type": "ResourceSpecificationRef",
                "@referredType": "ResourceSpecification"
            }
        }
    }
]

```

```

"resourceSpecification": {
  "id": "4",
  "href": "
http://server:port/resourceCatalogManagement/v5/resourceSpecification/4",
  "@type": "ResourceSpecificationRef",
  "@referredType": "ResourceSpecification"
},
"externalIdentifier": [
  {
    "externalIdentifierType": "Supplier-Router-Id",
    "id": "XYZ-1174-B",
    "owner": "Supplier-A",
    "@type": "ExternalIdentifier"
  }
],
"supportingResource": [
  {
    "id": "918273",
    "href": "http://server:port/resourceInventoryManagement/v5/resource/918273",
    "@type": "ResourceRef"
  }
],
"resourceCharacteristic": [
  {
    "name": "casing size",
    "valueType": "String",
    "value": "19\\",
    "@type": "StringCharacteristic"
  }
],
"resourceOrderItem": [
  {
    "role": "supplier purchase",
    "itemAction": "add",
    "itemId": "1",
    "resourceOrderId": "66588438-2",
    "resourceOrderHref":
"http://server:port/resourceOrderManagement/v5/resourceOrder/66588438-2",
    "@type": "RelatedResourceOrderItem",
    "@referredType": "ResourceOrderItem"
  }
],
"attachment": [
  {
    "id": "D-2024-05-13-X47",
    "href": "http://server:port/documentManagement/v5/document/D-2024-05-13-X47",
    "description": "delivery note",
    "@type": "AttachmentRef",
    "@referredType": "Document"
  }
]
}

```

Deletes a Resource

DELETE /resource/{id}

Description

This operation deletes a Resource entity.

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

Release History

Release Number	Date	Release led by:	Description

Contributors to Document

Version Number	Date	Modified by	Description
5.0.0	04.06.2024	Lutz Bettge Alexander Klörig Deutsche Telekom	migrated to version 5