TM Forum Specification

GeographicAddress

TMF673

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NOTICE

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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

GeographicAddressValidation resource

This resource is used to manage address validation request and response.

Resource model

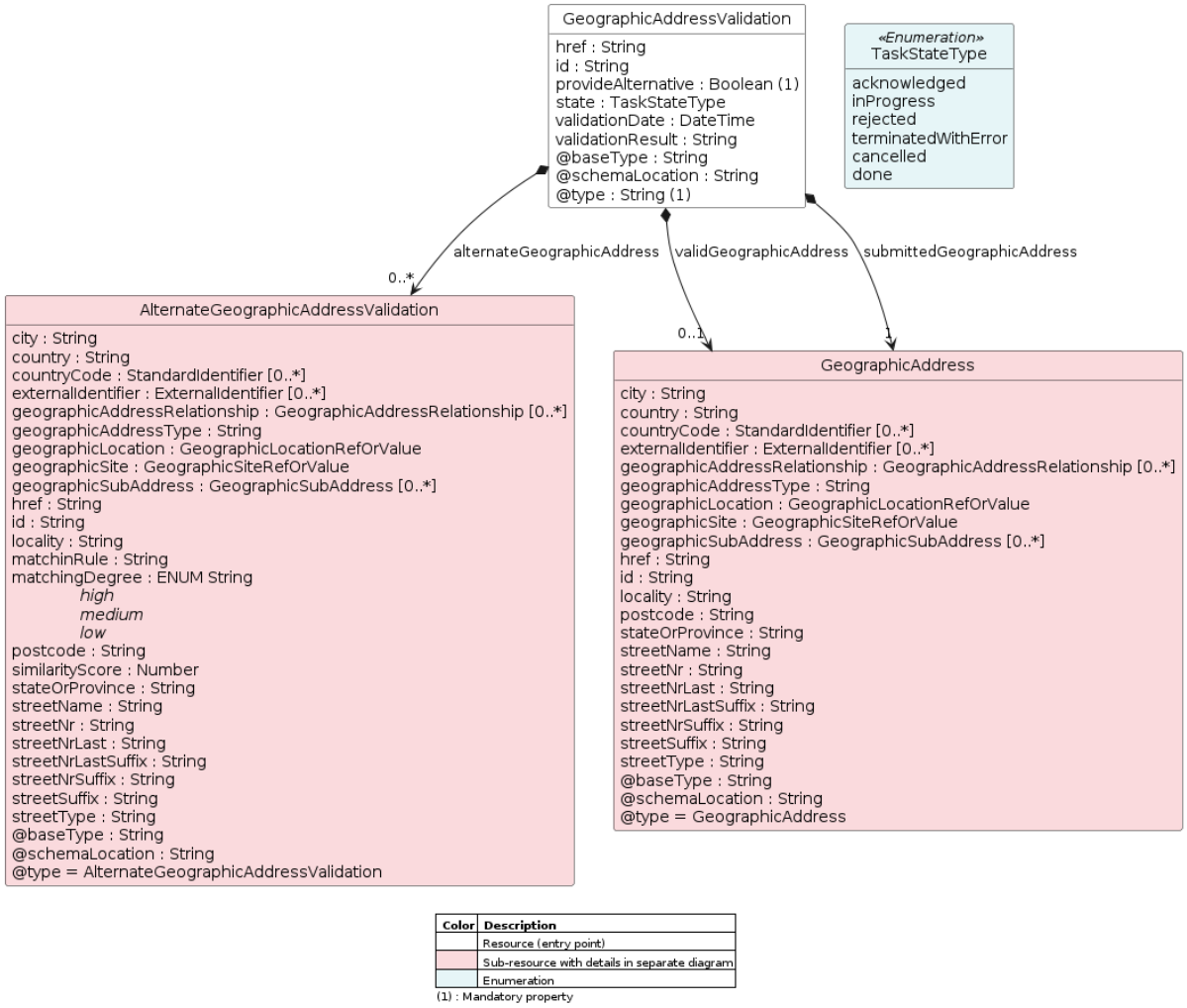


Figure 1 - GeographicAddressValidation

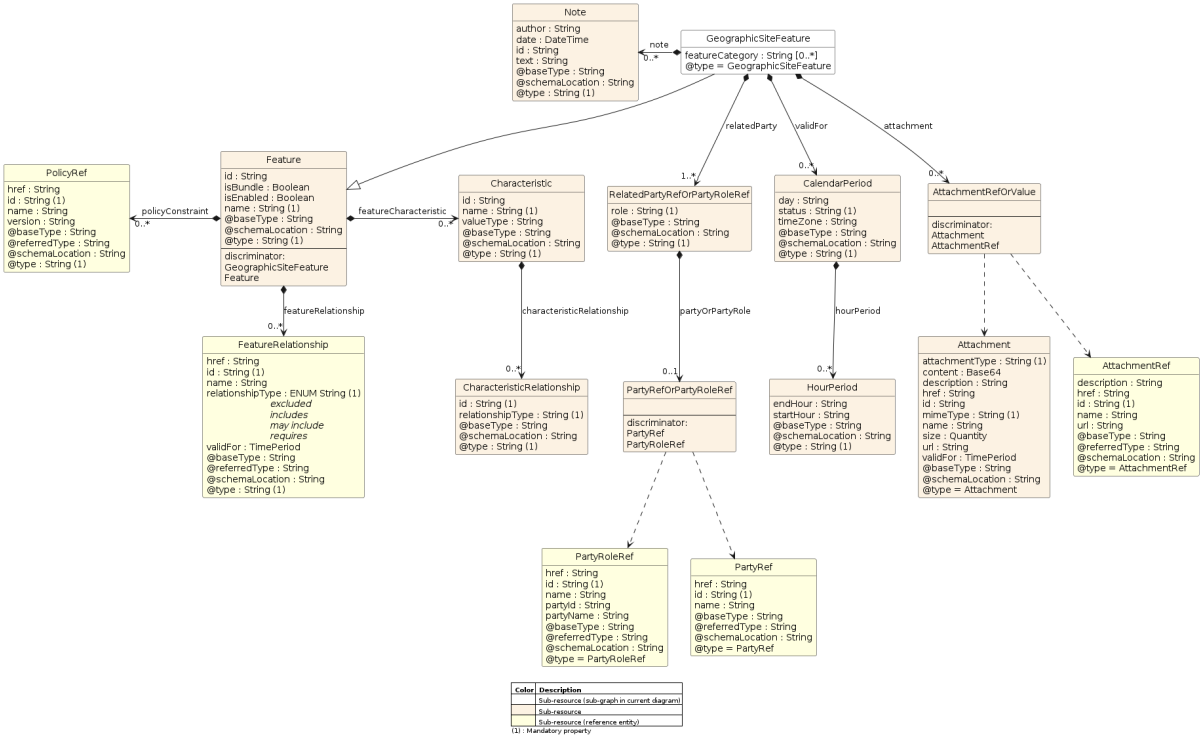


Figure 2 - GeographicSiteFeature

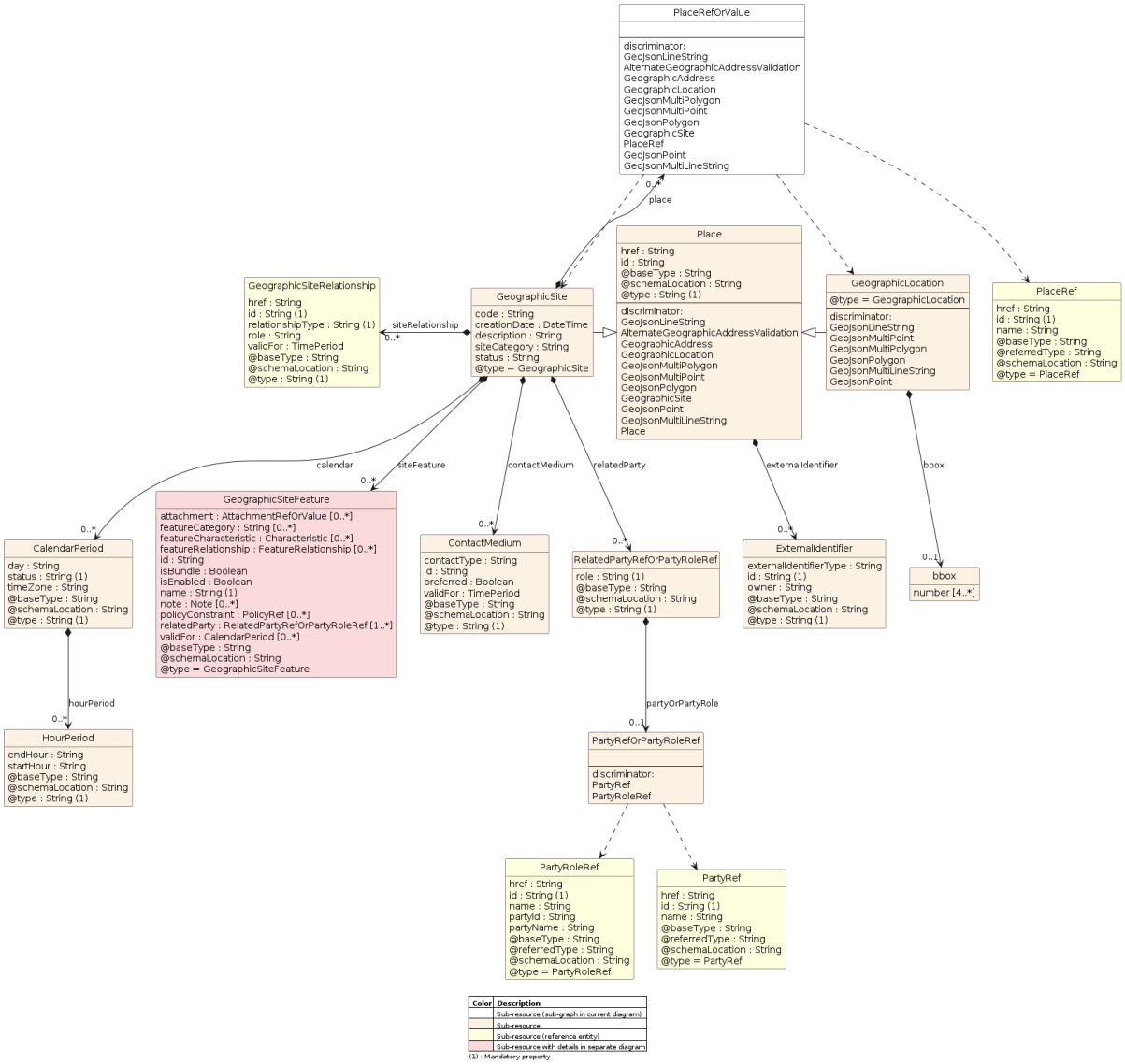


Figure 3 - PlaceRefOrValue

Field descriptions

GeographicAddressValidation fields

alternateGeographicAddress	An AlternateGeographicAddressValidation. An alternate geographic address can signify an alternative address that shares a certain degree of similarity with the original geographic address, matched using different algormiths (e.g. fuzzy) by the address management system. This alternative may encompass variations in spelling or represent a different rendition of the primary address.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
provideAlternative	A Boolean. Indicator provided by the requester to specify if alternate addresses must be provided in case of partial or fail result.

state	A TaskStateType. Possible values for the state of a task. ENUMERATED with values: * acknowledged * rejected * inProgress * cancelled * done * terminatedWithError
submittedGeographicAddress	A GeographicAddress. Structured textual way of describing how to find a Property in an urban area (country properties are often defined differently). Note : Address corresponds to SID UrbanPropertyAddress. GeographicAddress can be instanciated as * AlternateGeographicAddressValidation
validGeographicAddress	A GeographicAddress. Structured textual way of describing how to find a Property in an urban area (country properties are often defined differently). Note : Address corresponds to SID UrbanPropertyAddress. GeographicAddress can be instanciated as * AlternateGeographicAddressValidation
validationDate	A DateTime. Date when the address validation is performed.
validationResult	A String. Result of the address validation (success, partial, fails).
@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.

AlternateGeographicAddressValidation sub-resource fields

city	A String. City that the address is in.
country	A String. Country that the address is in.
countryCode	A StandardIdentifier. The corresponding identification of the resource in different standard, regulatory definitions. The standard specification identifier (e.g., ISO 3166-1 Alpha-2) and the corresponding value (e.g., BE) relevant to a particular resource. It is anticipated that multiple standards can provide definitions for a single entity, e.g., a country identifier can be specified in various standards (e.g., "ISO 3166-1 Alpha 2", "ISO 3166-1 Alpha 3", "ISO 3166-1 Numeric").

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.
geographicAddressRelationship	A GeographicAddressRelationship. The GeographicAddressRelationship schema represents a relationship between geographic addresses. It defines the structure for storing information about how two geographic addresses are related to each other within a system.
geographicAddressType	A String. Classification of the address, e.g., residential, industrial.
geographicLocation	A GeographicLocationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicLocation entity and not the GeographicLocationRefOrValue class itself.
geographicSite	A GeographicSiteRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicSite entity and not the GeographicSiteRefOrValue class itself.
geographicSubAddress	A GeographicSubAddress. Representation of a GeographicSubAddress It is used for addressing within a property in an urban area (country properties are often defined differently). It may refer to a building, a building cluster, or a floor of a multistory building.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
locality	A String. An area of defined or undefined boundaries within a local authority or other legislatively defined area, usually rural or semi rural in nature. [ANZLIC-STREET], or a suburb, a bounded locality within a city, town or shire principally of urban character [ANZLICSTREET].
matchinRule	A String. Indicates the matching rule that was applied to determine the matching degree for the target item. This attribute provides insight into the reasoning behind the assigned matching degree.
matchingDegree	A String. Represents the matching degree between the search query and the target item, classified based on linguistic variables and matching rules. This attribute categorizes the degree of similarity into linguistic terms such as HighSimilarity, Medium Similarity, or LowSimilarity. ENUMERATED with values: * high * medium * low

postcode	A String. Descriptor for a postal delivery area, used to speed and simplify the delivery of mail (also know as zipcode).
similarityScore	A Number. Represents the similarity score between the search query and the target item. This score quantifies the degree of similarity or match between the two.
stateOrProvince	A String. The State or Province that the address is in.
streetName	A String. Name of the street or other street type.
streetNr	A String. Number identifying a specific property on a public street. It may be combined with streetNrLast for ranged addresses.
streetNrLast	A String. Last number in a range of street numbers allocated to a property.
streetNrLastSuffix	A String. Last street number suffix for a ranged address.
streetNrSuffix	A String. The first street number suffix.
streetSuffix	A String. A modifier denoting a relative direction.
streetType	A String. Alley, avenue, boulevard, brae, crescent, drive, highway, lane, terrace, parade, place, tarn, way, wharf.
@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.

GeoJsonLineString sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A LineString. GeoJSON: A collection of Points forming a connected line.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeographicAddress sub-resource fields

city	A String. City that the address is in.
country	A String. Country that the address is in.
countryCode	A StandardIdentifier. The corresponding identification of the resource in different standard, regulatory definitions. The standard specification identifier (e.g., ISO 3166-1 Alpha-2) and the corresponding value (e.g., BE) relevant to a particular resource. It is anticipated that multiple standards can provide definitions for a single entity, e.g., a country identifier can be specified in various standards (e.g., "ISO 3166-1 Alpha 2", "ISO 3166-1 Alpha 3", "ISO 3166-1 Numeric").
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.
geographicAddressRelationship	A GeographicAddressRelationship. The GeographicAddressRelationship schema represents a relationship between geographic addresses. It defines the structure for storing information about how two geographic addresses are related to each other within a system.
geographicAddressType	A String. Classification of the address, e.g., residential, industrial.
geographicLocation	A GeographicLocationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicLocation entity and not the GeographicLocationRefOrValue class itself.
geographicSite	A GeographicSiteRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicSite entity and not the GeographicSiteRefOrValue class itself.
geographicSubAddress	A GeographicSubAddress. Representation of a GeographicSubAddress It is used for addressing within a property in an urban area (country properties are often defined differently). It may refer to a building, a building cluster, or a floor of a multistory building.
href	A String. Hyperlink reference.

id	A String. Unique identifier.
locality	A String. An area of defined or undefined boundaries within a local authority or other legislatively defined area, usually rural or semi rural in nature. [ANZLIC-STREET], or a suburb, a bounded locality within a city, town or shire principally of urban character [ANZLICSTREET].
postcode	A String. Descriptor for a postal delivery area, used to speed and simplify the delivery of mail (also know as zipcode).
stateOrProvince	A String. The State or Province that the address is in.
streetName	A String. Name of the street or other street type.
streetNr	A String. Number identifying a specific property on a public street. It may be combined with streetNrLast for ranged addresses.
streetNrLast	A String. Last number in a range of street numbers allocated to a property.
streetNrLastSuffix	A String. Last street number suffix for a ranged address.
streetNrSuffix	A String. The first street number suffix.
streetSuffix	A String. A modifier denoting a relative direction.
streetType	A String. Alley, avenue, boulevard, brae, crescent, drive, highway, lane, terrace, parade, place, tarn, way, wharf.
@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.
	GeographicAddress can be instanciated as * AlternateGeographicAddressValidation
matchinRule	This property is present in subclasses
matchingDegree	This property is present in subclasses
similarityScore	This property is present in subclasses

GeographicLocation sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.

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.
@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.
	GeographicLocation can be instanciated as * GeoJsonLineString * GeoJsonMultiLineString * GeoJsonMultiPoint * GeoJsonMultiPolygon * GeoJsonPoint * GeoJsonPolygon
geoJson	This property is present in subclasses

GeoJsonMultiPolygon sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A MultiPolygon. GeoJSON: A collection of Polygons.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonMultiPoint sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A MultiPoint. GeoJSON: A collection of Points.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonPolygon sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A Polygon. GeoJSON: An array of linear rings.
href	A String. Hyperlink reference.
id	A String. Unique identifier.

@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.

GeographicSite sub-resource fields

calendar	A CalendarPeriod. The CalendarPeriod schema represents a period of time within a calendar, defining various attributes such as the applicable day, timezone, hour period, and status. It is designed to capture information about the availability or status of a calendar period, which can be used in scheduling, booking, or resource allocation applications.
code	A String. A code that may be used for some addressing schemes eg: [ANSI T1.253-1999].
contactMedium	A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium…
creationDate	A DateTime. Date and time when the GeographicSite was created.
description	A String. Text describing additional information regarding the site.
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.
place	A PlaceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Place entity and not the PlaceRefOrValue class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
siteCategory	A String. Site classification/category.

siteFeature	A GeographicSiteFeature. Geographic Site Feature captures various site information, ranging from survey data to safety guidelines and hazard information.
siteRelationship	A GeographicSiteRelationship. Details of geographic site relationship.
status	A String. The condition of the GeographicSite, such as planned, underConstruction, cancelled, active, inactive, former.
@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.

GeoJsonPoint sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A Point. GeoJSON: A single position.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonMultiLineString sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.

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.
geoJson	A MultiLineString. GeoJSON: A collection of distinct LineStrings.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

Place sub-resource fields

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.
@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.
	Place can be instanciated as * GeographicAddress * GeographicLocation * GeographicSite
bbox	This property is present in subclasses
calendar	This property is present in subclasses

city	This property is present in subclasses
code	This property is present in subclasses
contactMedium	This property is present in subclasses
country	This property is present in subclasses
countryCode	This property is present in subclasses
creationDate	This property is present in subclasses
description	This property is present in subclasses
geographicAddressRelationship	This property is present in subclasses
geographicAddressType	This property is present in subclasses
geographicLocation	This property is present in subclasses
geographicSite	This property is present in subclasses
geographicSubAddress	This property is present in subclasses
locality	This property is present in subclasses
place	This property is present in subclasses
postcode	This property is present in subclasses
relatedParty	This property is present in subclasses
siteCategory	This property is present in subclasses
siteFeature	This property is present in subclasses
siteRelationship	This property is present in subclasses
stateOrProvince	This property is present in subclasses
status	This property is present in subclasses
streetName	This property is present in subclasses
streetNr	This property is present in subclasses
streetNrLast	This property is present in subclasses
streetNrLastSuffix	This property is present in subclasses
streetNrSuffix	This property is present in subclasses
streetSuffix	This property is present in subclasses
streetType	This property is present in subclasses

GeographicAddressRelationship sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.

relationshipType	A String. Type of relationship between the geographic addresses. This attribute specifies the nature of the relationship between the related addresses. It provides context for understanding how the addresses are related to each other.
@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.

StandardIdentifier sub-resource fields

format	A String. Standard/Regulatory definition identifier. e.g., ISO 3166-1.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
value	A String. The value of the resource in the corresponding standard.e.g., a country code value.
@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.

GeographicLocationRef 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.

GeographicSubAddress sub-resource fields

buildingName	A String. Allows for buildings that have well-known names.
href	A String. Hyperlink reference.

id	A String. Unique identifier.
levelNumber	A String. Used where a level type may be repeated e.g. BASEMENT 1, BASEMENT 2.
levelType	A String. Describes level types within a building.
name	A String. Name of the subAddress to identify it with a meaningful identification.
privateStreetName	A String. Private streets internal to a property (e.g. a university) may have internal names that are not recorded by the land title office.
privateStreetNumber	A String. Private streets numbers internal to a private street.
subAddressType	A String. Type of subAddress : it can be a subunit or a private street.
subUnit	A GeographicSubAddressUnit. Representation of a SubUnit. It is used for describing subunit within a subAddress e.g. BERTH, FLAT, PIER, SUITE, SHOP, TOWER, UNIT, WHARF.
@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.

GeographicSiteRef 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.

LineString sub-resource fields

coordinates	A position. GeoJSON: An array of two or more positions.
type	A String. ENUMERATED with values: * LineString

MultiPolygon sub-resource fields

coordinates	A polygon. GeoJSON: An array of polygons.

type	A String. ENUMERATED with values: * MultiPolygon

MultiPoint sub-resource fields

coordinates	A position. GeoJSON: An array of positions.
type	A String. ENUMERATED with values: * MultiPoint

Polygon sub-resource fields

coordinates	A linearRing. GeoJSON: An array of linear rings.
type	A String. ENUMERATED with values: * Polygon

Point sub-resource fields

coordinates	A position. GeoJSON: A single position.
type	A String. ENUMERATED with values: * Point

MultiLineString sub-resource fields

coordinates	A position. GeoJSON: An array of two or more positions.
type	A String. ENUMERATED with values: * MultiLineString

GeographicSubAddressUnit sub-resource fields

subUnitNumber	A String. The discriminator used for the subunit, often just a simple number but may also be a range.
subUnitType	A String. The type of subunit e.g.BERTH, FLAT, PIER, SUITE, SHOP, TOWER, UNIT, WHARF, RACK.
@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.

ContactMedium sub-resource fields

contactType	A String. Type of the contact medium to qualify it like pro email / personal email. This is not used to define the contact medium used.
id	A String. Identifier for this contact medium.
preferred	A Boolean. If true, indicates that is the preferred contact medium.

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.

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.

CalendarPeriod sub-resource fields

day	A String. Day where the calendar status applies (e.g.: monday, mon-to-fri, weekdays, weekend, all week, …).
hourPeriod	A HourPeriod. Hour interval.
status	A String. Indication of the availability of the calendar period (e.g.: available, booked, etc.).
timeZone	A String. Indication of the timezone applicable to the calendar information (e.g.: Paris, GMT+1).
@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.

GeographicSiteRelationship sub-resource fields

href	A String. Reference of the related geographic site.
id	A String. Unique identifier of the related site entity within the server.
relationshipType	A String. Type of relationship.
role	A String. Role of the related site in the relationship.

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.

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.

GeographicSiteFeature sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
featureCategory	A String. Collection of feature category.
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.
note	A Note. Extra information about a given entity.
policyConstraint	A PolicyRef. Reference to managed Policy object.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.

validFor	A CalendarPeriod. The CalendarPeriod schema represents a period of time within a calendar, defining various attributes such as the applicable day, timezone, hour period, and status. It is designed to capture information about the availability or status of a calendar period, which can be used in scheduling, booking, or resource allocation applications.
@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.
	Feature can be instanciated as * GeographicSiteFeature
attachment	This property is present in subclasses
featureCategory	This property is present in subclasses
note	This property is present in subclasses
relatedParty	This property is present in subclasses
validFor	This property is present in subclasses

HourPeriod sub-resource fields

endHour	A String. The time when the status ends applying.
startHour	A String. The time when the status starts applying.
@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.

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.

Attachment sub-resource fields

attachmentType	A String. A business characterization of the purpose of the attachment, for example logo, instructionManual, contractCopy.
content	A Base64. The actual contents of the attachment object, if embedded, encoded as base64.
description	A String. A narrative text describing the content of the attachment.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
mimeType	A String. A technical characterization of the attachment content format using IETF Mime Types.
name	A String. The name of the attachment.
size	A Quantity. An amount in a given unit.
url	A String. Uniform Resource Locator, is a web page address (a subset of URI).
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.

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.

Json representation sample(s)

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


```
{
    "id": "33173014-fc84-4e7b-8ccf-3e900c0a9917",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddressValidation/33173014-fc84-4e7b-
8ccf-3e900c0a9917",
    "provideAlternative": true,
    "state": "done",
    "validationDate": "2012-07-09T19:22:09.1440844Z",
    "validationResult" : "partial",
    "submittedGeographicAddress": {
        "streetNr": "151",
        "streetName": "Landgrabenweg",
        "postcode": "53227",
        "city": "Bonn",
        "stateOrProvince": "NRW",
        "country": "Germany",
        "@type": "FieldedAddress",
        "@baseType": "GeographicAddress"
    },
    "alternateGeographicAddress": [
        {
            "id": "35dcfeec-9051-4b05-830e-7a0f67dc541d",
            "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/35dcfeec-9051-4b05-830e-
7a0f67dc541d",
            "streetNr": "151",
            "streetNrSuffix": "Erstbau",
            "streetName": "Landgrabenweg",
            "streetType": "road",
            "postcode": "53227",
            "locality": "Beuel",
            "city": "Bonn",
            "stateOrProvince": "NRW",
            "country": "Germany",
            "geographicLocation": {
                "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
                "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
                "@type":"GeoJsonPoint"
            }
        }
    ],
    "@type":"GeographicAddressValidation"
}
```

GeographicAddress resource

Structured textual way of describing how to find a Property in an urban area (country properties are often defined differently).
Note : Address corresponds to SID UrbanPropertyAddress.

Resource model

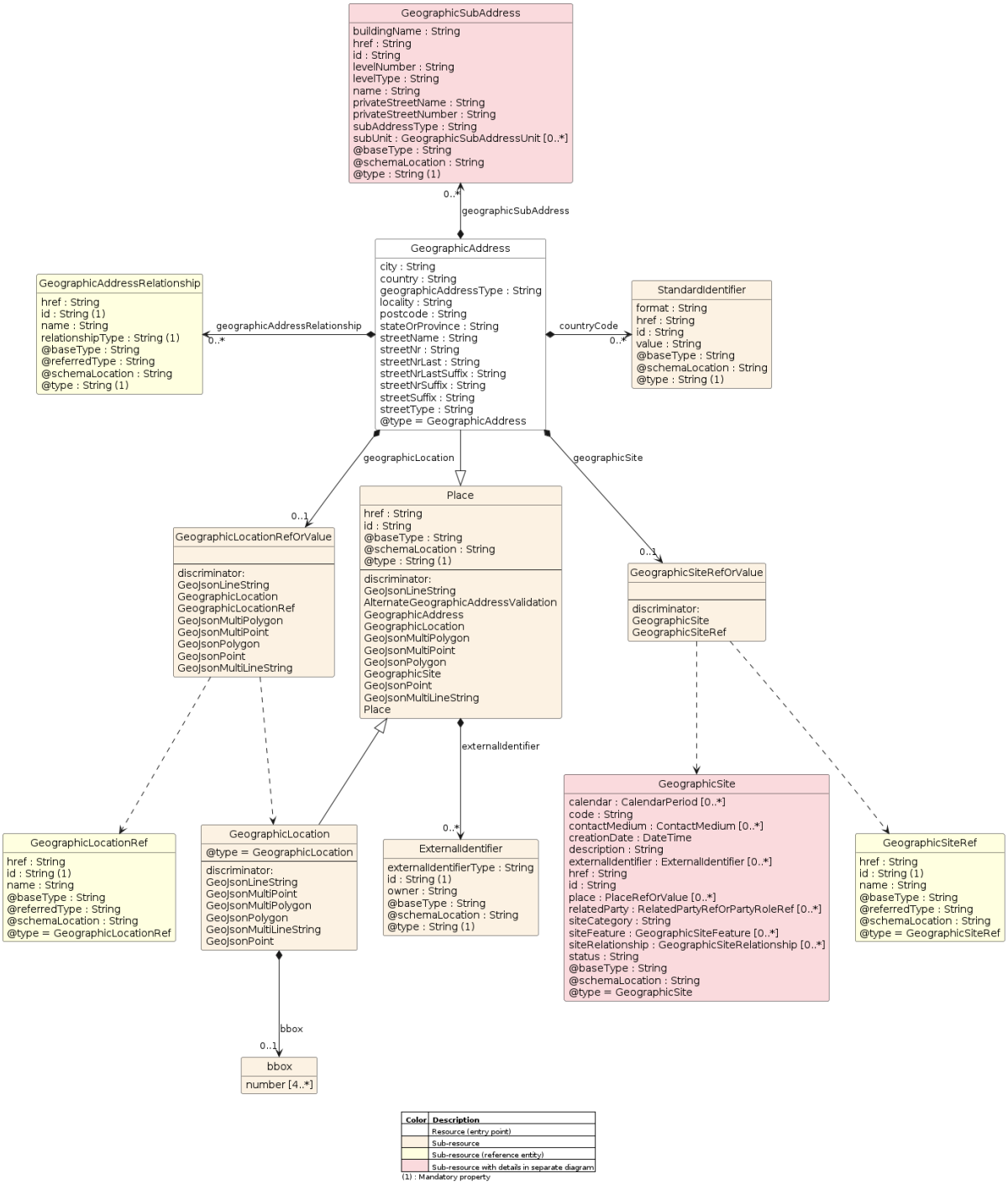


Figure 4 - GeographicAddress

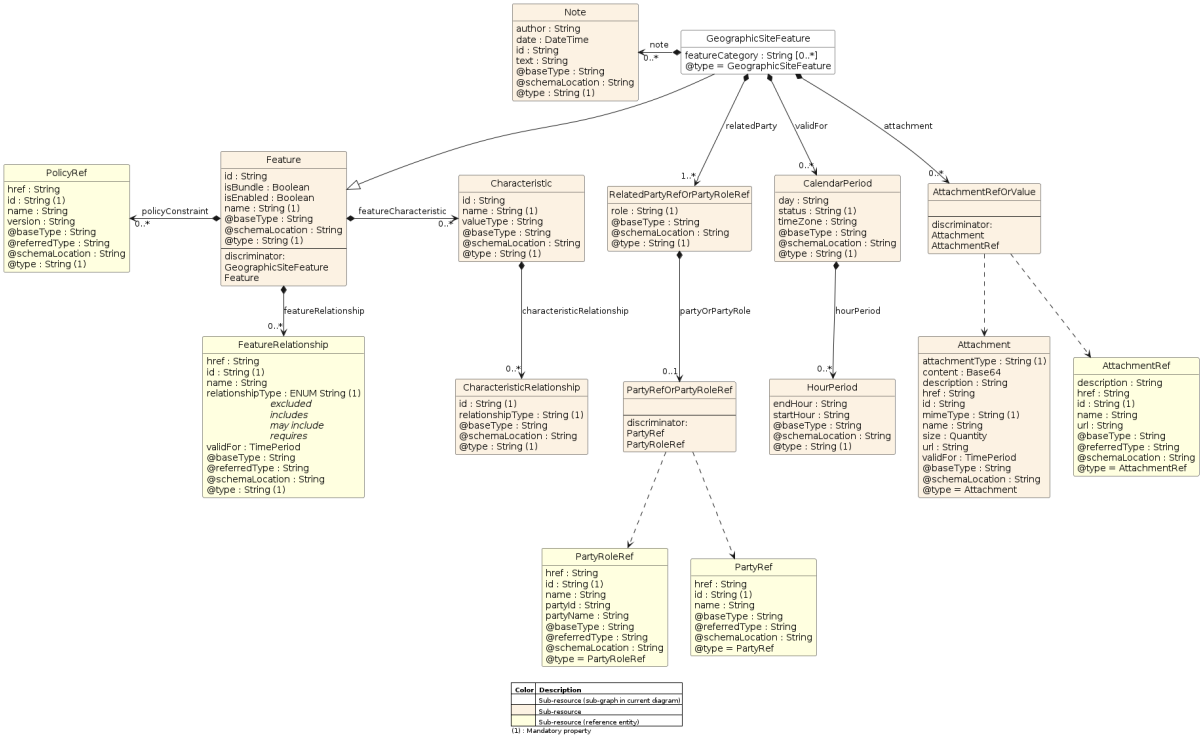


Figure 5 - GeographicSiteFeature

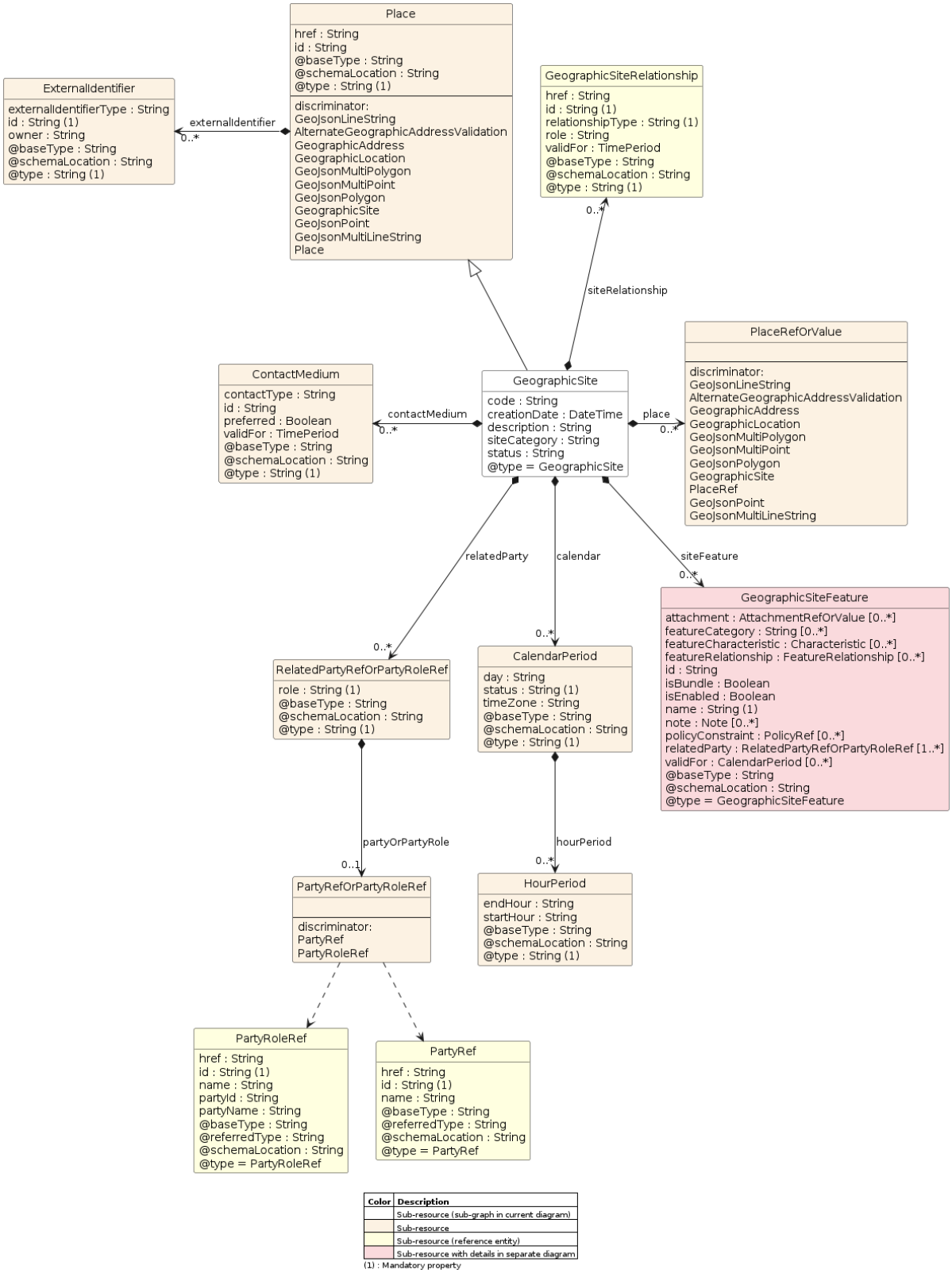


Figure 6 - GeographicSite

Field descriptions

GeographicAddress fields

city	A String. City that the address is in.
country	A String. Country that the address is in.
countryCode	A StandardIdentifier. The corresponding identification of the resource in different standard, regulatory definitions. The standard specification identifier (e.g., ISO 3166-1 Alpha-2) and the corresponding value (e.g., BE) relevant to a particular resource. It is anticipated that multiple standards can provide definitions for a single entity, e.g., a country identifier can be specified in various standards (e.g., "ISO 3166-1 Alpha 2", "ISO 3166-1 Alpha 3", "ISO 3166-1 Numeric").
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.
geographicAddressRelationship	A GeographicAddressRelationship. The GeographicAddressRelationship schema represents a relationship between geographic addresses. It defines the structure for storing information about how two geographic addresses are related to each other within a system.
geographicAddressType	A String. Classification of the address, e.g., residential, industrial.
geographicLocation	A GeographicLocationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicLocation entity and not the GeographicLocationRefOrValue class itself.
geographicSite	A GeographicSiteRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicSite entity and not the GeographicSiteRefOrValue class itself.
geographicSubAddress	A GeographicSubAddress. Representation of a GeographicSubAddress It is used for addressing within a property in an urban area (country properties are often defined differently). It may refer to a building, a building cluster, or a floor of a multistory building.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
locality	A String. An area of defined or undefined boundaries within a local authority or other legislatively defined area, usually rural or semi rural in nature. [ANZLIC-STREET], or a suburb, a bounded locality within a city, town or shire principally of urban character [ANZLICSTREET].

postcode	A String. Descriptor for a postal delivery area, used to speed and simplify the delivery of mail (also know as zipcode).
stateOrProvince	A String. The State or Province that the address is in.
streetName	A String. Name of the street or other street type.
streetNr	A String. Number identifying a specific property on a public street. It may be combined with streetNrLast for ranged addresses.
streetNrLast	A String. Last number in a range of street numbers allocated to a property.
streetNrLastSuffix	A String. Last street number suffix for a ranged address.
streetNrSuffix	A String. The first street number suffix.
streetSuffix	A String. A modifier denoting a relative direction.
streetType	A String. Alley, avenue, boulevard, brae, crescent, drive, highway, lane, terrace, parade, place, tarn, way, wharf.
@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.
	GeographicAddress can be instanciated as * AlternateGeographicAddressValidation
matchinRule	This property is present in subclasses
matchingDegree	This property is present in subclasses
similarityScore	This property is present in subclasses

GeographicAddressRelationship sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
relationshipType	A String. Type of relationship between the geographic addresses. This attribute specifies the nature of the relationship between the related addresses. It provides context for understanding how the addresses are related to each other.
@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.

StandardIdentifier sub-resource fields

format	A String. Standard/Regulatory definition identifier. e.g., ISO 3166-1.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
value	A String. The value of the resource in the corresponding standard.e.g., a country code value.
@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.

GeoJsonLineString sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A LineString. GeoJSON: A collection of Points forming a connected line.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeographicLocation sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.

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.
@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.
	GeographicLocation can be instanciated as * GeoJsonLineString * GeoJsonMultiLineString * GeoJsonMultiPoint * GeoJsonMultiPolygon * GeoJsonPoint * GeoJsonPolygon
geoJson	This property is present in subclasses

GeographicLocationRef 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.

GeoJsonMultiPolygon sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.

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.
geoJson	A MultiPolygon. GeoJSON: A collection of Polygons.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonMultiPoint sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A MultiPoint. GeoJSON: A collection of Points.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonPolygon sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A Polygon. GeoJSON: An array of linear rings.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonPoint sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A Point. GeoJSON: A single position.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonMultiLineString sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A MultiLineString. GeoJSON: A collection of distinct LineStrings.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeographicSubAddress sub-resource fields

buildingName	A String. Allows for buildings that have well-known names.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
levelNumber	A String. Used where a level type may be repeated e.g. BASEMENT 1, BASEMENT 2.
levelType	A String. Describes level types within a building.
name	A String. Name of the subAddress to identify it with a meaningful identification.
privateStreetName	A String. Private streets internal to a property (e.g. a university) may have internal names that are not recorded by the land title office.
privateStreetNumber	A String. Private streets numbers internal to a private street.
subAddressType	A String. Type of subAddress : it can be a subunit or a private street.
subUnit	A GeographicSubAddressUnit. Representation of a SubUnit. It is used for describing subunit within a subAddress e.g. BERTH, FLAT, PIER, SUITE, SHOP, TOWER, UNIT, WHARF.
@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.

GeographicSite sub-resource fields

calendar	A CalendarPeriod. The CalendarPeriod schema represents a period of time within a calendar, defining various attributes such as the applicable day, timezone, hour period, and status. It is designed to capture information about the availability or status of a calendar period, which can be used in scheduling, booking, or resource allocation applications.
code	A String. A code that may be used for some addressing schemes eg: [ANSI T1.253-1999].
contactMedium	A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium…
creationDate	A DateTime. Date and time when the GeographicSite was created.
description	A String. Text describing additional information regarding the site.
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.
place	A PlaceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Place entity and not the PlaceRefOrValue class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
siteCategory	A String. Site classification/category.
siteFeature	A GeographicSiteFeature. Geographic Site Feature captures various site information, ranging from survey data to safety guidelines and hazard information.

siteRelationship	A GeographicSiteRelationship. Details of geographic site relationship.
status	A String. The condition of the GeographicSite, such as planned, underConstruction, cancelled, active, inactive, former.
@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.

GeographicSiteRef 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.

LineString sub-resource fields

coordinates	A position. GeoJSON: An array of two or more positions.
type	A String. ENUMERATED with values: * LineString

MultiPoint sub-resource fields

coordinates	A position. GeoJSON: An array of positions.
type	A String. ENUMERATED with values: * MultiPoint

MultiPolygon sub-resource fields

coordinates	A polygon. GeoJSON: An array of polygons.
type	A String. ENUMERATED with values: * MultiPolygon

Polygon sub-resource fields

coordinates	A linearRing. GeoJSON: An array of linear rings.

type	A String. ENUMERATED with values: * Polygon

MultiLineString sub-resource fields

coordinates	A position. GeoJSON: An array of two or more positions.
type	A String. ENUMERATED with values: * MultiLineString

Point sub-resource fields

coordinates	A position. GeoJSON: A single position.
type	A String. ENUMERATED with values: * Point

GeographicSubAddressUnit sub-resource fields

subUnitNumber	A String. The discriminator used for the subunit, often just a simple number but may also be a range.
subUnitType	A String. The type of subunit e.g.BERTH, FLAT, PIER, SUITE, SHOP, TOWER, UNIT, WHARF, RACK.
@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.

ContactMedium sub-resource fields

contactType	A String. Type of the contact medium to qualify it like pro email / personal email. This is not used to define the contact medium used.
id	A String. Identifier for this contact medium.
preferred	A Boolean. If true, indicates that is the preferred contact medium.
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.

AlternateGeographicAddressValidation sub-resource fields

city	A String. City that the address is in.

country	A String. Country that the address is in.
countryCode	A StandardIdentifier. The corresponding identification of the resource in different standard, regulatory definitions. The standard specification identifier (e.g., ISO 3166-1 Alpha-2) and the corresponding value (e.g., BE) relevant to a particular resource. It is anticipated that multiple standards can provide definitions for a single entity, e.g., a country identifier can be specified in various standards (e.g., "ISO 3166-1 Alpha 2", "ISO 3166-1 Alpha 3", "ISO 3166-1 Numeric").
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.
geographicAddressRelationship	A GeographicAddressRelationship. The GeographicAddressRelationship schema represents a relationship between geographic addresses. It defines the structure for storing information about how two geographic addresses are related to each other within a system.
geographicAddressType	A String. Classification of the address, e.g., residential, industrial.
geographicLocation	A GeographicLocationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicLocation entity and not the GeographicLocationRefOrValue class itself.
geographicSite	A GeographicSiteRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicSite entity and not the GeographicSiteRefOrValue class itself.
geographicSubAddress	A GeographicSubAddress. Representation of a GeographicSubAddress It is used for addressing within a property in an urban area (country properties are often defined differently). It may refer to a building, a building cluster, or a floor of a multistory building.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
locality	A String. An area of defined or undefined boundaries within a local authority or other legislatively defined area, usually rural or semi rural in nature. [ANZLIC-STREET], or a suburb, a bounded locality within a city, town or shire principally of urban character [ANZLICSTREET].

matchinRule	A String. Indicates the matching rule that was applied to determine the matching degree for the target item. This attribute provides insight into the reasoning behind the assigned matching degree.
matchingDegree	A String. Represents the matching degree between the search query and the target item, classified based on linguistic variables and matching rules. This attribute categorizes the degree of similarity into linguistic terms such as HighSimilarity, Medium Similarity, or LowSimilarity. ENUMERATED with values: * high * medium * low
postcode	A String. Descriptor for a postal delivery area, used to speed and simplify the delivery of mail (also know as zipcode).
similarityScore	A Number. Represents the similarity score between the search query and the target item. This score quantifies the degree of similarity or match between the two.
stateOrProvince	A String. The State or Province that the address is in.
streetName	A String. Name of the street or other street type.
streetNr	A String. Number identifying a specific property on a public street. It may be combined with streetNrLast for ranged addresses.
streetNrLast	A String. Last number in a range of street numbers allocated to a property.
streetNrLastSuffix	A String. Last street number suffix for a ranged address.
streetNrSuffix	A String. The first street number suffix.
streetSuffix	A String. A modifier denoting a relative direction.
streetType	A String. Alley, avenue, boulevard, brae, crescent, drive, highway, lane, terrace, parade, place, tarn, way, wharf.
@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.

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.

CalendarPeriod sub-resource fields

day	A String. Day where the calendar status applies (e.g.: monday, mon-to-fri, weekdays, weekend, all week, …).
hourPeriod	A HourPeriod. Hour interval.
status	A String. Indication of the availability of the calendar period (e.g.: available, booked, etc.).
timeZone	A String. Indication of the timezone applicable to the calendar information (e.g.: Paris, GMT+1).
@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.

GeographicSiteRelationship sub-resource fields

href	A String. Reference of the related geographic site.
id	A String. Unique identifier of the related site entity within the server.
relationshipType	A String. Type of relationship.
role	A String. Role of the related site in the relationship.
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.

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.

GeographicSiteFeature sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
featureCategory	A String. Collection of feature category.
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.
note	A Note. Extra information about a given entity.
policyConstraint	A PolicyRef. Reference to managed Policy object.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
validFor	A CalendarPeriod. The CalendarPeriod schema represents a period of time within a calendar, defining various attributes such as the applicable day, timezone, hour period, and status. It is designed to capture information about the availability or status of a calendar period, which can be used in scheduling, booking, or resource allocation applications.
@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.
	Feature can be instanciated as * GeographicSiteFeature
attachment	This property is present in subclasses
featureCategory	This property is present in subclasses
note	This property is present in subclasses
relatedParty	This property is present in subclasses
validFor	This property is present in subclasses

HourPeriod sub-resource fields

endHour	A String. The time when the status ends applying.
startHour	A String. The time when the status starts applying.
@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.

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.

Attachment sub-resource fields

attachmentType	A String. A business characterization of the purpose of the attachment, for example logo, instructionManual, contractCopy.
content	A Base64. The actual contents of the attachment object, if embedded, encoded as base64.

description	A String. A narrative text describing the content of the attachment.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
mimeType	A String. A technical characterization of the attachment content format using IETF Mime Types.
name	A String. The name of the attachment.
size	A Quantity. An amount in a given unit.
url	A String. Uniform Resource Locator, is a web page address (a subset of URI).
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.

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.

Json representation sample(s)

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

```
{
    "id": "4c6b6fc1-d954-4ad6-adf6-59c275afb541",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
```

```
59c275afb541",
    "streetNr": "225",
    "streetNrSuffix": "B",
    "streetName": " Strathmore",
    "streetType": "Terrace",
    "postcode": "5004",
    "locality": "Brighton.",
    "city": "Brighton",
    "stateOrProvince": "SA",
    "country": "Australia",
    "countryCode": [
        {
          "format": "ISO 3166-1 Alpha-2",
          "value": "AU"
        }
      ],
      "externalIdentifier": [
        {
          "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
          "owner": "ExternalSystem",
          "externalIdentifierType": "GeographicAddress"
        }
    ],
    "geographicAddressType": "residential",
    "@type": "GeographicAddress",
    "geographicLocation": {
        "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
        "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
        "name": "Nice Acropolis",
       "@type":"GeoJsonPoint"
    },
    "geographicSubAddress": [
      {
        "id": "1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
        "href":"https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541/geographicSubAddress/1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
        "name": "Mimosas",
        "subUnitType": "flat",
        "subUnitNumber": "239",
        "levelType": "floor",
        "levelNumber": "3",
        "buildingName": "Catalysts",
        "@type": "GeographicSubAddress"
      },
      {
        "id": "3c657185-e158-45b4-96f2-72a83eaffd46",
        "href":"https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541/geographicSubAddress/3c657185-e158-45b4-96f2-72a83eaffd46",
        "name": "Heaven",
        "subUnitType": "flat",
        "subUnitNumber": "007",
        "levelType": "floor",
        "levelNumber": "3",
        "buildingName": "VIP area",
        "@type": "GeographicSubAddress"
      }
    ]
  }
```

GeographicSubAddress resource

Representation of a GeographicSubAddress
It is used for addressing within a property in an urban area (country properties are often defined differently). It may refer to a building, a building cluster, or a floor of a multistory building.

Resource model

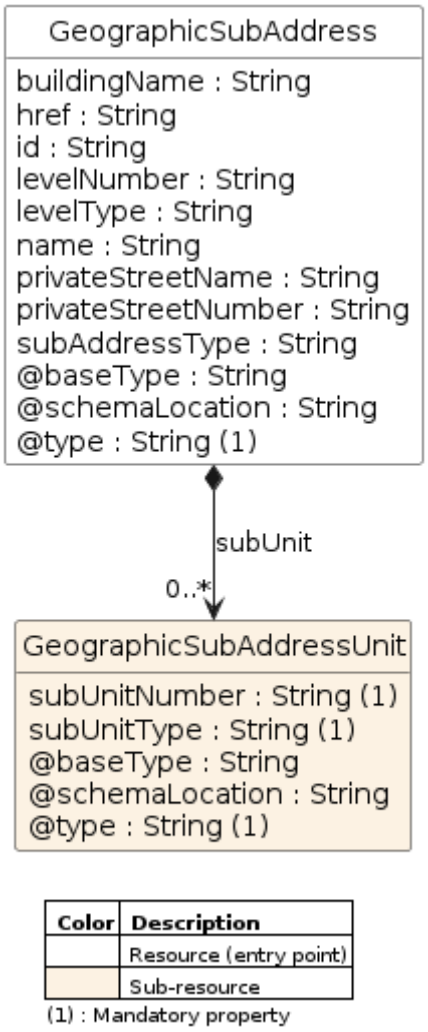


Figure 7 - GeographicSubAddress

Field descriptions

GeographicSubAddress fields

buildingName	A String. Allows for buildings that have well-known names.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
levelNumber	A String. Used where a level type may be repeated e.g. BASEMENT 1, BASEMENT 2.

levelType	A String. Describes level types within a building.
name	A String. Name of the subAddress to identify it with a meaningful identification.
privateStreetName	A String. Private streets internal to a property (e.g. a university) may have internal names that are not recorded by the land title office.
privateStreetNumber	A String. Private streets numbers internal to a private street.
subAddressType	A String. Type of subAddress : it can be a subunit or a private street.
subUnit	A GeographicSubAddressUnit. Representation of a SubUnit. It is used for describing subunit within a subAddress e.g. BERTH, FLAT, PIER, SUITE, SHOP, TOWER, UNIT, WHARF.
@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.

GeographicSubAddressUnit sub-resource fields

subUnitNumber	A String. The discriminator used for the subunit, often just a simple number but may also be a range.
subUnitType	A String. The type of subunit e.g.BERTH, FLAT, PIER, SUITE, SHOP, TOWER, UNIT, WHARF, RACK.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Json representation sample(s)

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

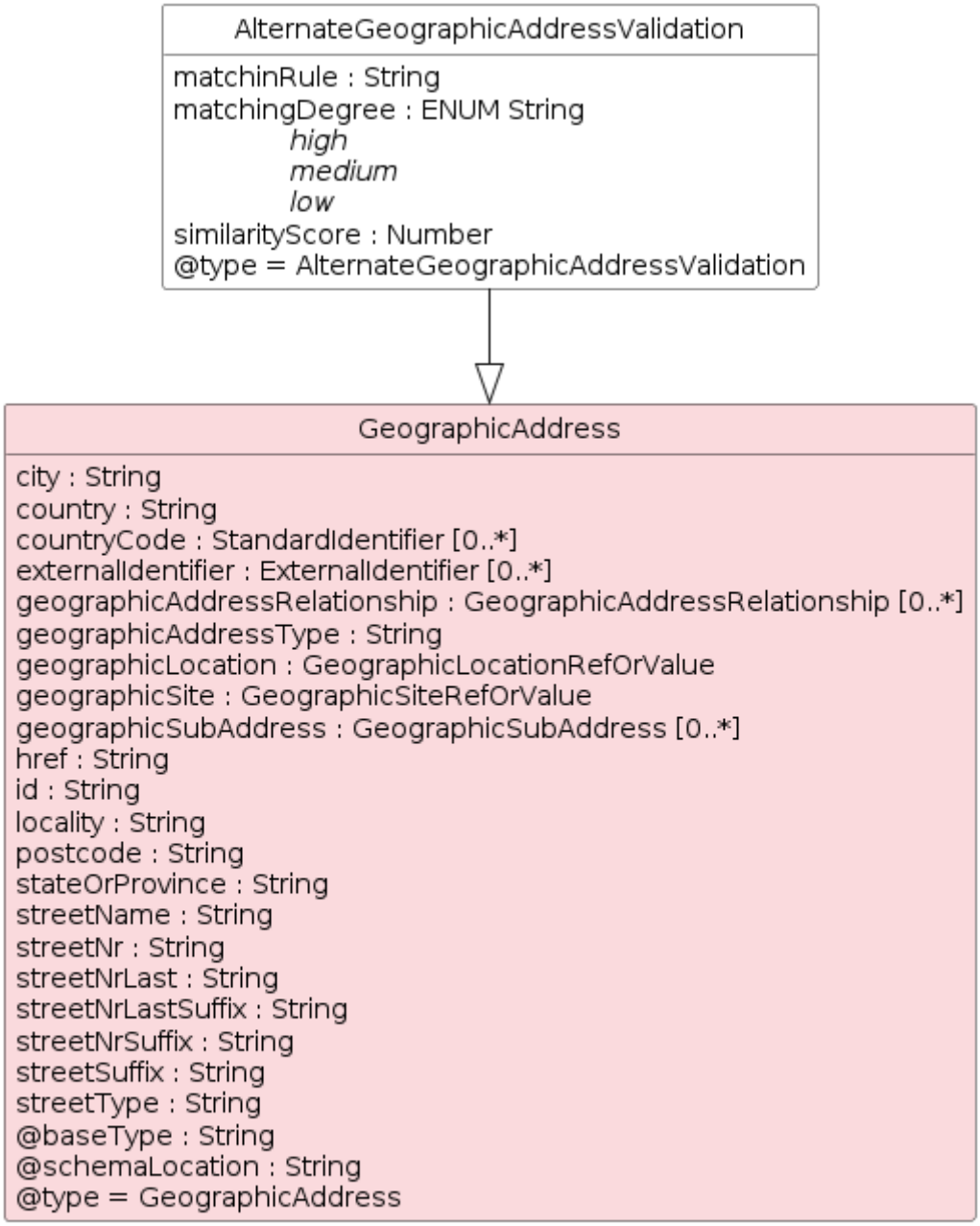

```
{
    "id": "1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/f019f4e5-7431-44dc-94d6-
97e9a881fe79/geographicSubAddress/1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
    "name": "EastGate Shopping Center",
    "buildingName": "EastGate",
    "levelType": "floor",
    "levelNumber": "3",
    "privateStreetName":"Queen St",
    "privateStreetNumber":"1",
    "subAddressType":"subUnit",
    "subUnit":[
```

```
        {
            "subUnitType": "SHOP",
            "subUnitNumber": "239"
        }
    ],
    "@type": "GeographicSubAddress"
}
```


AlternateGeographicAddressValidation resource

An alternate geographic address can signify an alternative address that shares a certain degree of similarity with the original geographic address, matched using different algormiths (e.g. fuzzy) by the address management system. This alternative may encompass variations in spelling or represent a different rendition of the primary address.

Resource model



Color	Description
	Resource (entry point)
	Sub-resource with details in separate diagram

(1) : Mandatory property

Figure 8 - AlternateGeographicAddressValidation

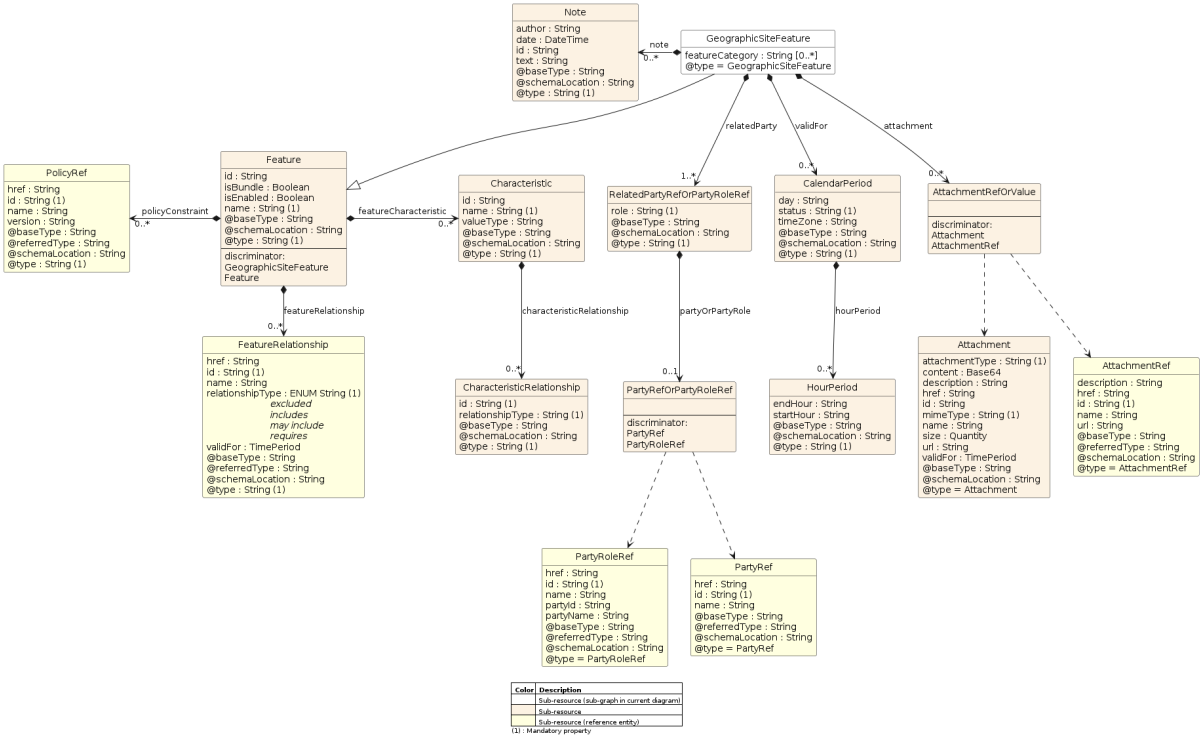


Figure 9 - GeographicSiteFeature

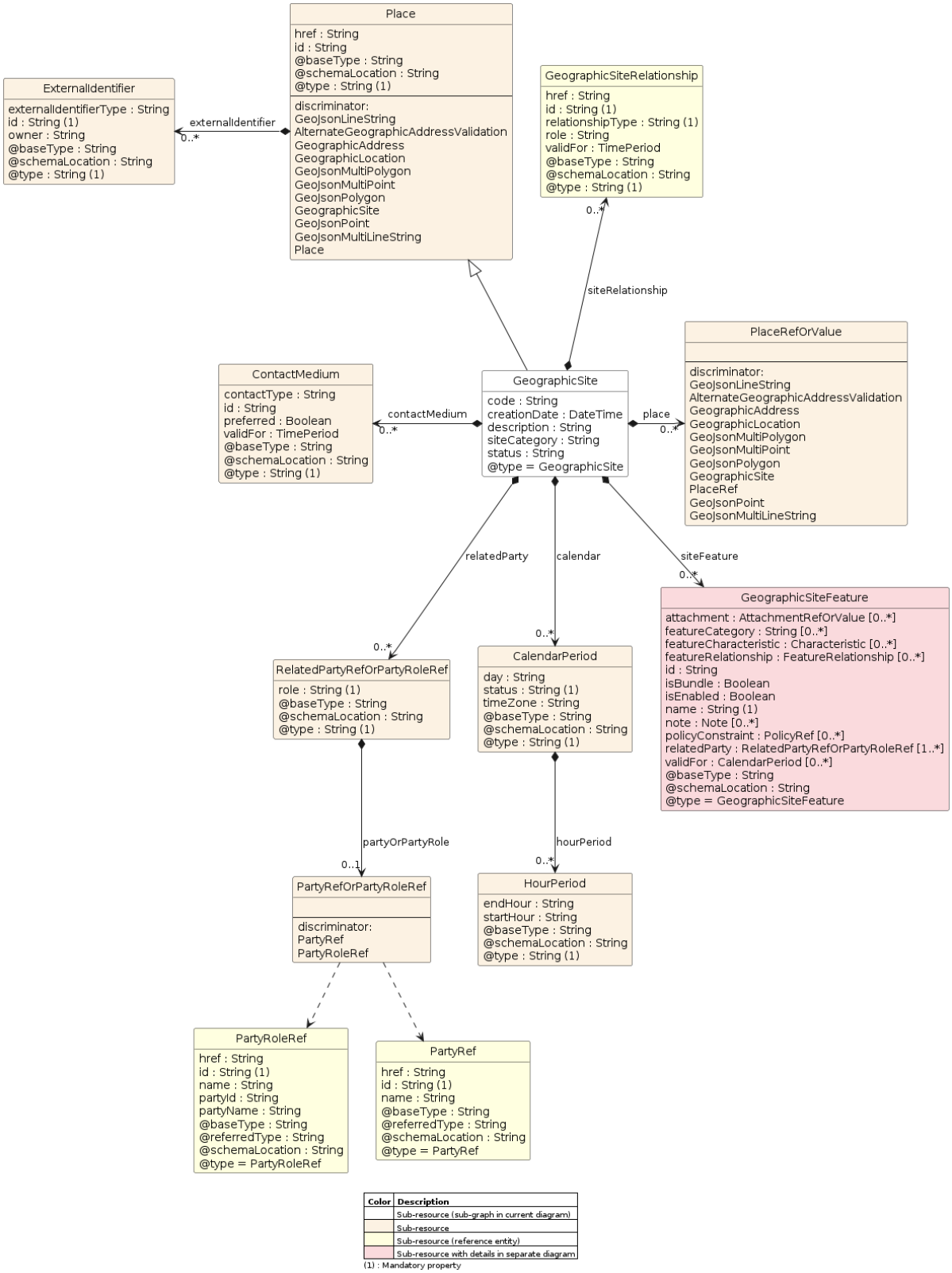


Figure 10 - GeographicSite

Field descriptions

AlternateGeographicAddressValidation fields

city	A String. City that the address is in.
country	A String. Country that the address is in.
countryCode	A StandardIdentifier. The corresponding identification of the resource in different standard, regulatory definitions. The standard specification identifier (e.g., ISO 3166-1 Alpha-2) and the corresponding value (e.g., BE) relevant to a particular resource. It is anticipated that multiple standards can provide definitions for a single entity, e.g., a country identifier can be specified in various standards (e.g., "ISO 3166-1 Alpha 2", "ISO 3166-1 Alpha 3", "ISO 3166-1 Numeric").
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.
geographicAddressRelationship	A GeographicAddressRelationship. The GeographicAddressRelationship schema represents a relationship between geographic addresses. It defines the structure for storing information about how two geographic addresses are related to each other within a system.
geographicAddressType	A String. Classification of the address, e.g., residential, industrial.
geographicLocation	A GeographicLocationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicLocation entity and not the GeographicLocationRefOrValue class itself.
geographicSite	A GeographicSiteRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicSite entity and not the GeographicSiteRefOrValue class itself.
geographicSubAddress	A GeographicSubAddress. Representation of a GeographicSubAddress It is used for addressing within a property in an urban area (country properties are often defined differently). It may refer to a building, a building cluster, or a floor of a multistory building.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
locality	A String. An area of defined or undefined boundaries within a local authority or other legislatively defined area, usually rural or semi rural in nature. [ANZLIC-STREET], or a suburb, a bounded locality within a city, town or shire principally of urban character [ANZLICSTREET].

matchinRule	A String. Indicates the matching rule that was applied to determine the matching degree for the target item. This attribute provides insight into the reasoning behind the assigned matching degree.
matchingDegree	A String. Represents the matching degree between the search query and the target item, classified based on linguistic variables and matching rules. This attribute categorizes the degree of similarity into linguistic terms such as HighSimilarity, Medium Similarity, or LowSimilarity. ENUMERATED with values: * high * medium * low
postcode	A String. Descriptor for a postal delivery area, used to speed and simplify the delivery of mail (also know as zipcode).
similarityScore	A Number. Represents the similarity score between the search query and the target item. This score quantifies the degree of similarity or match between the two.
stateOrProvince	A String. The State or Province that the address is in.
streetName	A String. Name of the street or other street type.
streetNr	A String. Number identifying a specific property on a public street. It may be combined with streetNrLast for ranged addresses.
streetNrLast	A String. Last number in a range of street numbers allocated to a property.
streetNrLastSuffix	A String. Last street number suffix for a ranged address.
streetNrSuffix	A String. The first street number suffix.
streetSuffix	A String. A modifier denoting a relative direction.
streetType	A String. Alley, avenue, boulevard, brae, crescent, drive, highway, lane, terrace, parade, place, tarn, way, wharf.
@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.

GeoJsonLineString sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.

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.
geoJson	A LineString. GeoJSON: A collection of Points forming a connected line.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeographicAddress sub-resource fields

city	A String. City that the address is in.
country	A String. Country that the address is in.
countryCode	A StandardIdentifier. The corresponding identification of the resource in different standard, regulatory definitions. The standard specification identifier (e.g., ISO 3166-1 Alpha-2) and the corresponding value (e.g., BE) relevant to a particular resource. It is anticipated that multiple standards can provide definitions for a single entity, e.g., a country identifier can be specified in various standards (e.g., "ISO 3166-1 Alpha 2", "ISO 3166-1 Alpha 3", "ISO 3166-1 Numeric").
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.
geographicAddressRelationship	A GeographicAddressRelationship. The GeographicAddressRelationship schema represents a relationship between geographic addresses. It defines the structure for storing information about how two geographic addresses are related to each other within a system.

geographicAddressType	A String. Classification of the address, e.g., residential, industrial.
geographicLocation	A GeographicLocationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicLocation entity and not the GeographicLocationRefOrValue class itself.
geographicSite	A GeographicSiteRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicSite entity and not the GeographicSiteRefOrValue class itself.
geographicSubAddress	A GeographicSubAddress. Representation of a GeographicSubAddress It is used for addressing within a property in an urban area (country properties are often defined differently). It may refer to a building, a building cluster, or a floor of a multistory building.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
locality	A String. An area of defined or undefined boundaries within a local authority or other legislatively defined area, usually rural or semi rural in nature. [ANZLIC-STREET], or a suburb, a bounded locality within a city, town or shire principally of urban character [ANZLICSTREET].
postcode	A String. Descriptor for a postal delivery area, used to speed and simplify the delivery of mail (also know as zipcode).
stateOrProvince	A String. The State or Province that the address is in.
streetName	A String. Name of the street or other street type.
streetNr	A String. Number identifying a specific property on a public street. It may be combined with streetNrLast for ranged addresses.
streetNrLast	A String. Last number in a range of street numbers allocated to a property.
streetNrLastSuffix	A String. Last street number suffix for a ranged address.
streetNrSuffix	A String. The first street number suffix.
streetSuffix	A String. A modifier denoting a relative direction.
streetType	A String. Alley, avenue, boulevard, brae, crescent, drive, highway, lane, terrace, parade, place, tarn, way, wharf.
@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.
	GeographicAddress can be instanciated as * AlternateGeographicAddressValidation
matchinRule	This property is present in subclasses

matchingDegree	This property is present in subclasses
similarityScore	This property is present in subclasses

GeographicLocation sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
@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.
	GeographicLocation can be instanciated as * GeoJsonLineString * GeoJsonMultiLineString * GeoJsonMultiPoint * GeoJsonMultiPolygon * GeoJsonPoint * GeoJsonPolygon
geoJson	This property is present in subclasses

GeoJsonMultiPolygon sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.

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.
geoJson	A MultiPolygon. GeoJSON: A collection of Polygons.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonMultiPoint sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A MultiPoint. GeoJSON: A collection of Points.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonPolygon sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A Polygon. GeoJSON: An array of linear rings.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeographicSite sub-resource fields

calendar	A CalendarPeriod. The CalendarPeriod schema represents a period of time within a calendar, defining various attributes such as the applicable day, timezone, hour period, and status. It is designed to capture information about the availability or status of a calendar period, which can be used in scheduling, booking, or resource allocation applications.
code	A String. A code that may be used for some addressing schemes eg: [ANSI T1.253-1999].
contactMedium	A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium…
creationDate	A DateTime. Date and time when the GeographicSite was created.
description	A String. Text describing additional information regarding the site.

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.
place	A PlaceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Place entity and not the PlaceRefOrValue class itself.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
siteCategory	A String. Site classification/category.
siteFeature	A GeographicSiteFeature. Geographic Site Feature captures various site information, ranging from survey data to safety guidelines and hazard information.
siteRelationship	A GeographicSiteRelationship. Details of geographic site relationship.
status	A String. The condition of the GeographicSite, such as planned, underConstruction, cancelled, active, inactive, former.
@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.

GeoJsonPoint sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.

geoJson	A Point. GeoJSON: A single position.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

GeoJsonMultiLineString sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
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.
geoJson	A MultiLineString. GeoJSON: A collection of distinct LineStrings.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
@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.

Place sub-resource fields

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.
@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.
	Place can be instanciated as * GeographicAddress * GeographicLocation * GeographicSite
bbox	This property is present in subclasses
calendar	This property is present in subclasses
city	This property is present in subclasses
code	This property is present in subclasses
contactMedium	This property is present in subclasses
country	This property is present in subclasses
countryCode	This property is present in subclasses
creationDate	This property is present in subclasses
description	This property is present in subclasses
geographicAddressRelationship	This property is present in subclasses
geographicAddressType	This property is present in subclasses
geographicLocation	This property is present in subclasses
geographicSite	This property is present in subclasses
geographicSubAddress	This property is present in subclasses
locality	This property is present in subclasses
place	This property is present in subclasses
postcode	This property is present in subclasses
relatedParty	This property is present in subclasses
siteCategory	This property is present in subclasses
siteFeature	This property is present in subclasses
siteRelationship	This property is present in subclasses
stateOrProvince	This property is present in subclasses
status	This property is present in subclasses
streetName	This property is present in subclasses
streetNr	This property is present in subclasses
streetNrLast	This property is present in subclasses

streetNrLastSuffix	This property is present in subclasses
streetNrSuffix	This property is present in subclasses
streetSuffix	This property is present in subclasses
streetType	This property is present in subclasses

Notification Resource Models

4 notifications are defined for this API.

Notifications related to GeographicAddressValidation:

- State Change Event

Notifications related to GeographicAddress:

- Create Event
- Delete Event
- Attribute Value 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).

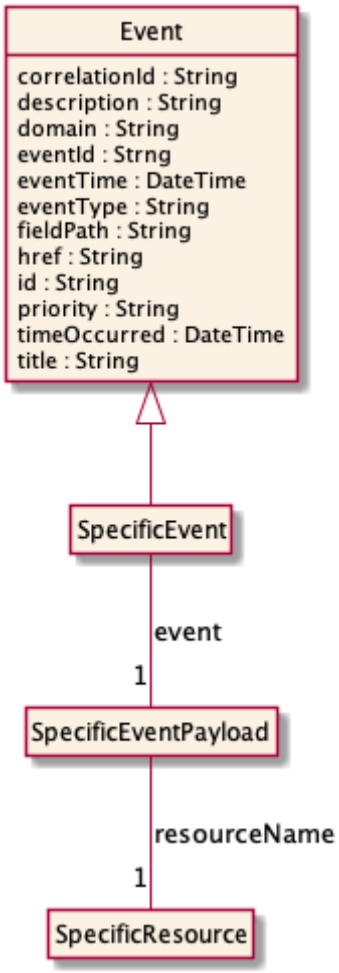


Figure 11 Notification Pattern

GeographicAddressValidation

State Change Event

Message example for GeographicAddressValidationStateChangeEvent event

```
Content-Type: application/json

{
    "id": "33173014-fc84-4e7b-8ccf-3e900c0a9917",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddressValidation/33173014-fc84-4e7b-
8ccf-3e900c0a9917",
    "state": "done",
    "@type":"GeographicAddressValidation"
}
```

GeographicAddress

Create Event

Message example for GeographicAddressCreateEvent event

```
Content-Type: application/json

{
    "correlationId": "b20d7f84-4fce",
    "description": "GeographicAddressCreateEvent illustration",
    "domain": "Commercial",
    "eventId": "44ae-9c3d-818a7727e876",
    "eventTime": "2023-02-22T11:20:57.341Z",
    "eventType": "GeographicAddressCreateEvent",
    "priority": "1",
    "timeOcurred": "2023-02-22T11:20:55.792Z",
    "title": "GeographicAddressCreateEvent",
    "event": {
        "geographicAddress": {
            "id": "4c6b6fc1-d954-4ad6-adf6-59c275afb541",
            "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541",
            "streetNr": "225",
            "streetNrSuffix": "B",
            "streetName": " Strathmore",
            "streetType": "Terrace",
            "postcode": "5004",
            "locality": "Brighton.",
            "city": "Brighton",
            "stateOrProvince": "SA",
            "country": "Australia",
            "countryCode": [
                {
                    "format": "ISO 3166-1 Alpha-2",
                    "value": "AU",
                    "@type": "StandardIdentifier"
                }
            ],
            "externalIdentifier": [
                {
                    "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
                    "owner": "ExternalSystem",
                    "externalIdentifierType": "GeographicAddress",
                    "@type":"ExternalIdentifier"
                }
            ],
            "geographicAddressType": "residential",
            "@type": "GeographicAddress",
            "geographicLocation": {
                "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
                "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
                "name": "Nice Acropolis",
                "@type": "GeoJsonPoint"
            },
            "geographicSubAddress": [
                {
                    "id": "1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
                    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541/geographicSubAddress/1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
```

```
                    "name": "Mimosas",
                    "subUnitType": "flat",
                    "subUnitNumber": "239",
                    "levelType": "floor",
                    "levelNumber": "3",
                    "buildingName": "Catalysts",
                    "@type": "GeographicSubAddress"
                },
                {
                    "id": "3c657185-e158-45b4-96f2-72a83eaffd46",
                    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541/geographicSubAddress/3c657185-e158-45b4-96f2-72a83eaffd46",
                    "name": "Heaven",
                    "subUnitType": "flat",
                    "subUnitNumber": "007",
                    "levelType": "floor",
                    "levelNumber": "3",
                    "buildingName": "VIP area",
                    "@type": "GeographicSubAddress"
                }
            ]
        }
    },
    "reportingSystem": {
        "id": "7b697ba1-988b-46f1-bb38-424994c56cfa",
        "name": "APP-365",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "source": {
        "id": "8eab9f96-8173-4660-9dc9-64b0be63781d",
        "name": "APP-250",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "@baseType": "Event",
    "@type": "GeographicAddressCreateEvent"
}
```


Delete Event

Message example for GeographicAddressDeleteEvent event


```
Content-Type: application/json

{
    "correlationId": "9863f9c1-064b",
    "description": "GeographicAddressDeleteEvent illustration",
    "domain": "Commercial",
    "eventId": "49a2-a7b4-543bcbcc3a27",
    "eventTime": "2023-02-22T11:20:57.373Z",
    "eventType": "GeographicAddressDeleteEvent",
    "priority": "4",
    "timeOcurred": "2023-02-22T11:20:53.297Z",
    "title": "GeographicAddressDeleteEvent",
    "event": {
        "geographicAddress": {
            "id": "4c6b6fc1-d954-4ad6-adf6-59c275afb541",
            "href": "https://host/tmf-
```

```
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541",
            "streetNr": "225",
            "streetNrSuffix": "B",
            "streetName": " Strathmore",
            "streetType": "Terrace",
            "postcode": "5004",
            "locality": "Brighton.",
            "city": "Brighton",
            "stateOrProvince": "SA",
            "country": "Australia",
            "countryCode": [
                {
                  "format": "ISO 3166-1 Alpha-2",
                  "value": "AU",
                  "@type": "StandardIdentifier"
                }
              ],
              "externalIdentifier": [
                {
                  "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
                  "owner": "ExternalSystem",
                  "externalIdentifierType": "GeographicAddress",
                  "@type":"ExternalIdentifier"
                }
            ],
            "geographicAddressType": "residential",
            "@type": "GeographicAddress",
            "geographicLocation": {
                "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
                "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
                "name": "Nice Acropolis",
              "@type":"GeoJsonPoint"
            },
            "geographicSubAddress": [
              {
                "id": "1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
                "href":"https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541/geographicSubAddress/1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
                "name": "Mimosas",
                "subUnitType": "flat",
                "subUnitNumber": "239",
                "levelType": "floor",
                "levelNumber": "3",
                "buildingName": "Catalysts",
                "@type": "GeographicSubAddress"
              },
              {
                "id": "3c657185-e158-45b4-96f2-72a83eaffd46",
                "href":"https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541/geographicSubAddress/3c657185-e158-45b4-96f2-72a83eaffd46",
                "name": "Heaven",
                "subUnitType": "flat",
                "subUnitNumber": "007",
                "levelType": "floor",
                "levelNumber": "3",
                "buildingName": "VIP area",
                "@type": "GeographicSubAddress"
              }
            ]
```

```
            }

    },
    "reportingSystem": {
        "id": "ab7cdf06-40ad-4f0e-abb8-69ed8d4b0ba6",
        "name": "APP-365",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "source": {
        "id": "945a66e1-eb83-4742-bb20-8e13c5aa76e9",
        "name": "APP-250",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "@baseType": "Event",
    "@type": "GeographicAddressDeleteEvent"
}
```


Attribute Value Change Event

Message example for GeographicAddressAttributeValueChangeEvent event


```
Content-Type: application/json

{
    "correlationId": "10182509-654c",
    "description": "GeographicAddressAttributeValueChangeEvent illustration",
    "domain": "Commercial",
    "eventId": "4fe7-88d1-f6ce0aa8cde0",
    "eventTime": "2023-02-22T11:20:57.355Z",
    "eventType": "GeographicAddressAttributeValueChangeEvent",
    "priority": "3",
    "timeOcurred": "2023-02-22T11:20:52.833Z",
    "title": "GeographicAddressAttributeValueChangeEvent",
    "event": {
        "geographicAddress": {
            "id": "4c6b6fc1-d954-4ad6-adf6-59c275afb541",
            "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541",
            "streetNr": "225",
            "@type":"GeographicAddress"
        }
    },
    "reportingSystem": {
        "id": "1e1b2eb3-49e2-45a7-a069-8402e2688ff3",
        "name": "APP-365",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "source": {
        "id": "ee1bbeb6-2cb1-4123-9d30-826b349b00f8",
        "name": "APP-250",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "@baseType": "Event",
    "@type": "GeographicAddressAttributeValueChangeEvent"
```

```
}
```

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 GeographicAddressValidation

List or find GeographicAddressValidation objects

`GET /geographicAddressValidation?fields=…`

Description

This operation list GeographicAddressValidation 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 GeographicAddressValidation list resource with status=done

Request

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

Response

```
200

[
    {
        "id": "33173014-fc84-4e7b-8ccf-3e900c0a9917",
        "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddressValidation/33173014-fc84-4e7b-
8ccf-3e900c0a9917",
        "provideAlternative": true,
        "state": "done",
        "validationDate": "2012-07-09T19:22:09.1440844Z",
        "validationResult" : "success",
        "submittedGeographicAddress": {
            "streetNr": "151",
            "streetName": "Landgrabenweg",
            "city": "Bonn",
            "country": "Germany",
            "@type":"GeographicAddress"
        },
        "validGeographicAddress": {
            "id": "2b8cea8f-642d-42e0-bdb2-6f47fabb3f07",
            "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/2b8cea8f-642d-42e0-bdb2-
6f47fabb3f07",
            "streetNr": "151",
            "streetNrSuffix": "Erstbau",
            "streetName": "Landgrabenweg",
            "streetType": "road",
            "postcode": "53227",
            "locality": "Beuel",
            "city": "Bonn",
            "stateOrProvince": "NRW",
            "country": "Germany",
            "geographicLocation": {
                "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
                "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
                "@type":"GeoJsonPoint"
            },
            "@type":"GeographicAddress"
        },
        "@type":"GeographicAddressValidation"
    },
    {
        "id": "21956612-5f4a-40a8-96ae-2e9d30936ed9",
        "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddressValidation/21956612-5f4a-40a8-
96ae-2e9d30936ed9",
        "provideAlternative": false,
        "state": "done",
        "validationDate": "2012-07-09T19:22:09.1440844Z",
        "validationResult" : "fail",
        "submittedGeographicAddress": {
            "streetNr": "151",
            "streetName": "Landgrabenweg",
            "city": "Bonn",
            "country": "Germany",
            "@type":"GeographicAddress"
        },
        "@type":"GeographicAddressValidation"
    },
    {
```

```
        "id": "33b50501-fc52-438d-96d8-6d03b23bbeb2",
        "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddressValidation/33b50501-fc52-438d-
96d8-6d03b23bbeb2",
        "provideAlternative": true,
        "state": "done",
        "validationDate": "2012-07-09T19:22:09.1440844Z",
        "validationResult" : "success",
        "submittedGeographicAddress": {
            "streetNr": "151",
            "streetName": "Landgrabenweg",
            "city": "Bonn",
            "country": "Germany",
            "@type":"GeographicAddress"
        },
        "alternateGeographicAddress": [
            {
                "id": "2b8cea8f-642d-42e0-bdb2-6f47fabb3f07",
                "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/2b8cea8f-642d-42e0-bdb2-
6f47fabb3f07",
                "streetNr": "151",
                "streetNrSuffix": "Erstbau",
                "streetName": "Landgrabenweg",
                "streetType": "road",
                "postcode": "53227",
                "locality": "Beuel",
                "city": "Bonn",
                "stateOrProvince": "NRW",
                "country": "Germany",
                "geographicLocation": {
                    "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
                    "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
                    "@type":"GeoJsonPoint"
                },
                "similarityScore":50,
                "matchinRule": "FuzzyRule",
                "matchingDegree":"medium",
                "@type":"AlternateGeographicAddress"
            }
        ],
        "@type":"GeographicAddressValidation"
    }
]
```


Retrieves a GeographicAddressValidation by ID

`GET /geographicAddressValidation/{id}?fields=…`

Description

This operation retrieves a GeographicAddressValidation 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 geographicAddressValidation resource with a

success result ? only validGeographicAddress information are presents

Request

```
GET /geographicAddressValidation/33173014-fc84-4e7b-8ccf-3e900c0a9917
Content-Type: application/json
```

Response

```
200

{
    "id": "33173014-fc84-4e7b-8ccf-3e900c0a9917",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddressValidation/33173014-fc84-4e7b-
8ccf-3e900c0a9917",
    "provideAlternative": true,
    "state": "done",
    "validationDate": "2012-07-09T19:22:09.1440844Z",
    "validationResult" : "success",
    "submittedGeographicAddress": {
        "streetNr": "151",
        "streetName": "Landgrabenweg",
        "city": "Bonn",
        "country": "Germany",
        "@type":"GeographicAddress"
    },
    "validGeographicAddress": {
        "id": "2b8cea8f-642d-42e0-bdb2-6f47fabb3f07",
        "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/2b8cea8f-642d-42e0-bdb2-
6f47fabb3f07",
        "streetNr": "151",
        "streetNrSuffix": "Erstbau",
        "streetName": "Landgrabenweg",
        "streetType": "road",
        "postcode": "53227",
        "locality": "Beuel",
        "city": "Bonn",
        "stateOrProvince": "NRW",
        "country": "Germany",
        "geographicLocation": {
            "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
            "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
            "@type":"GeoJsonPoint"
        },
        "@type":"GeographicAddress"
    },
    "@type":"GeographicAddressValidation"
}
```

Here's an example of a request for retrieving a GeographicAddressValidation resource with a fail result and provideAlternative flag set to no

Request

```
GET /geographicAddressValidation/21956612-5f4a-40a8-96ae-2e9d30936ed9
Content-Type: application/json
```

Response

```
200

{
    "id": "21956612-5f4a-40a8-96ae-2e9d30936ed9",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddressValidation/21956612-5f4a-40a8-
96ae-2e9d30936ed9",
    "provideAlternative": false,
    "state": "done",
    "validationDate": "2012-07-09T19:22:09.1440844Z",
    "validationResult" : "fail",
    "submittedGeographicAddress": {
        "streetNr": "151",
        "streetName": "Landgrabenweg",
        "city": "Bonn",
        "country": "Germany",
        "@type":"GeographicAddress"
    },
    "@type":"GeographicAddressValidation"
}
```

Here's an example of a request for retrieving a GeographicAddressValidation resource with a partial result

Request

```
GET /geographicAddressValidation/33b50501-fc52-438d-96d8-6d03b23bbeb2
Content-Type: application/json
```

Response

```
200

{
    "id": "33b50501-fc52-438d-96d8-6d03b23bbeb2",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddressValidation/33b50501-fc52-438d-
96d8-6d03b23bbeb2",
    "provideAlternative": true,
    "state": "done",
    "validationDate": "2012-07-09T19:22:09.1440844Z",
    "validationResult" : "partial",
    "submittedGeographicAddress": {
        "streetNr": "151",
        "streetName": "Landgrabenweg",
        "city": "Bonn",
        "country": "Germany",
        "@type":"GeographicAddress"
    },
```

```
    "alternateGeographicAddress": [
        {
            "id": "2b8cea8f-642d-42e0-bdb2-6f47fabb3f07",
            "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/2b8cea8f-642d-42e0-bdb2-
6f47fabb3f07",
            "streetNr": "151",
            "streetNrSuffix": "Erstbau",
            "streetName": "Landgrabenweg",
            "streetType": "road",
            "postcode": "53227",
            "locality": "Beuel",
            "city": "Bonn",
            "stateOrProvince": "NRW",
            "country": "Germany",
            "geographicLocation": {
                "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
                "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
                "@type":"GeoJsonPoint"
            },
            "similarityScore":80,
            "matchinRule": "FuzzyRule",
            "matchingDegree":"high",
            "@type":"AlternateGeographicAddress"
        }
    ],
    "@type":"GeographicAddressValidation"
}
```


Creates a GeographicAddressValidation

`POST /geographicAddressValidation?fields=…`

Description

This operation creates a GeographicAddressValidation entity.

Mandatory Attributes

Mandatory Attributes	Rule
provideAlternative	
submittedGeographicAddress	
submittedGeographicAddress.@type	
@type	

Usage samples

Creation of a new Geographic Address Validation with POST operation

Request

```
POST /geographicAddressValidation
```

```
Content-Type: application/json

{
    "provideAlternative": true,
    "submittedGeographicAddress": {
        "streetNr": "151",
        "streetName": "Landgrabenweg",
        "city": "Bonn",
        "country": "Germany",
        "@type": "GeographicAddress"
      },
    "@type":"GeographicAddressValidation"
}
```

Response

```
200

{
    "id": "5a897fc3-c269-4fe8-98fe-611b4ce9c3b8",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddressValidation/5a897fc3-c269-4fe8-
98fe-611b4ce9c3b8",
    "provideAlternative": true,
    "state": "done",
    "validationDate": "2012-07-09T19:22:09.1440844Z",
    "validationResult" : "partial",
    "submittedGeographicAddress": {
        "streetNr": "151",
        "streetName": "Landgrabenweg",
        "city": "Bonn",
        "country": "Germany",
        "@type":"GeographicAddress"
    },
    "alternateGeographicAddress": [
        {
            "id": "2b8cea8f-642d-42e0-bdb2-6f47fabb3f07",
            "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/2b8cea8f-642d-42e0-bdb2-
6f47fabb3f07",
            "streetNr": "151",
            "streetNrSuffix": "Erstbau",
            "streetName": "Landgrabenweg",
            "streetType": "road",
            "postcode": "53227",
            "locality": "Beuel",
            "city": "Bonn",
            "stateOrProvince": "NRW",
            "country": "Germany",
            "geographicLocation": {
                "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
                "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
                "@type":"GeoJsonPoint"
            },
            "similarityScore":80,
            "matchinRule": "FuzzyRule",
            "matchingDegree":"high",
            "@type":"AlternateGeographicAddress"
        }
```

```
    ],
    "@type":"GeographicAddressValidation"
}
```

Operations on GeographicAddress

List or find GeographicAddress objects

`GET /geographicAddress?fields=…`

Description

This operation list GeographicAddress 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 for retrieving Geographic Address resources

Request

```
GET /geographicAddress?city=Berlin
Content-Type: application/json
```

Response

```
200

[
    {
      "id": "f9a64ffe-845d-4c5d-8618-910d2c56004e",
      "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/f9a64ffe-845d-4c5d-8618-
910d2c56004e",
      "streetNr": "1",
      "streetName": "UnterDenLinden",
      "city": "Berlin",
      "country": "Germany",
      "postcode": "10117",
      "@type": "GeographicAddress",
      "geographicLocation": {
        "id": "d61505c5-0edb-4539-b1bc-2ba06a308c21",
        "href":"https://host/tmf-
api/geographicLocation/v5/geographicLocation/d61505c5-0edb-4539-b1bc-2ba06a308c21",
        "@type":"GeoJsonPoint"
      },
      "countryCode": [
        {
          "format": "ISO 3166-1 Alpha-2",
          "value": "DE",
          "@type": "StandardIdentifier"
        }
      ],
      "externalIdentifier": [
```

```
        {
          "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
          "owner": "Master-SBS",
          "externalIdentifierType": "GeographicAddress",
          "@type":"ExternalIdentifier"
        }
      ],
      "geographicAddressType": "residential"
    },
    {
      "id": "62a13770-b897-4b12-9b86-d05aa6f9b0c7",
      "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/62a13770-b897-4b12-9b86-
d05aa6f9b0c7",
      "streetNr": "3",
      "streetName": "UnterDenLinden",
      "city": "Berlin",
      "country": "Germany",
      "postcode": "10117",
      "@type": "GeographicAddress",
      "geographicLocation": {
        "id": "d94a469c-12f3-425c-afa7-17165b704c70",
        "href":"https://host/tmf-
api/geographicLocation/v5/geographicLocation/d94a469c-12f3-425c-afa7-17165b704c70",
        "@type":"GeoJsonPoint"
      },
      "countryCode": [
        {
          "format": "ISO 3166-1 Alpha-2",
          "value": "DE",
          "@type": "StandardIdentifier"
        }
      ],
      "externalIdentifier": [
        {
          "id": "bb66f723-f55b-4035-a938-9be6f66f660c",
          "owner": "Master-SBS",
          "externalIdentifierType": "GeographicAddress",
          "@type":"ExternalIdentifier"
        }
      ],
      "geographicAddressType": "residential"
    }
  ]
```


Retrieves a GeographicAddress by ID

`GET /geographicAddress/{id}?fields=…`

Description

This operation retrieves a GeographicAddress 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 for retrieving an Geographic Address resource

Request

```
GET /geographicAddress/4c6b6fc1-d954-4ad6-adf6-59c275afb541
Content-Type: application/json
```

Response

```
200

{
    "id": "4c6b6fc1-d954-4ad6-adf6-59c275afb541",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541",
    "streetNr": "151",
    "streetNrSuffix": "Erstbau",
    "streetName": "Landgrabenweg",
    "streetType": "road",
    "postcode": "53227",
    "locality": "Beuel",
    "city": "Bonn",
    "stateOrProvince": "NRW",
    "country": "Germany",
    "geographicLocation": {
      "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
      "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
      "@type":"GeoJsonPoint"
    },
    "countryCode": [
      {
        "format": "ISO 3166-1 Alpha-2",
        "value": "DE",
        "@type": "StandardIdentifier"
    }
    ],
    "externalIdentifier": [
      {
        "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
        "owner": "Master",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      }
    ],
    "geographicAddressType": "residential",
    "geographicSubAddress":[
        {
            "id": "20901d24-f20e-4391-8db8-57757380c9eb",
            "href":"https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/4c6b6fc1-d954-4ad6-adf6-
59c275afb541/geographicSubAddress/20901d24-f20e-4391-8db8-57757380c9eb",
            "levelNumber": "0",
            "levelType": "floor",
            "subAddressType": "subUnit",
            "subUnit":[
                {
                    "subUnitNumber": "1",
                    "subUnitType": "SHOP",
                    "@type":"GeographicSubAddressUnit"
```

```
                }
            ],
            "@type":"GeographicSubAddress"
        }
    ],
    "@type":"GeographicAddress"
  }
```

Creates a GeographicAddress

POST /geographicAddress?fields=…

Description

This operation creates a GeographicAddress entity.

Mandatory Attributes

Mandatory Attributes	Rule
@type	

Usage samples

Creation of a new Geographic Address with POST operation

Request

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

{
    "streetNr": "2",
    "streetNrSuffix": "B",
    "streetName": " Libertatii",
    "streetType": "Strada",
    "postcode": "100283",
    "locality": "Ploiesti",
    "city": "Ploiesti",
    "stateOrProvince": "Prahova",
    "country": "Romania",
    "geographicLocation": {
      "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
      "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
      "@type":"GeographicLocation"
    },
    "countryCode": [
      {
        "format": "ISO 3166-1 Alpha-2",
        "value": "RO",
        "@type": "StandardIdentifier"
      }
    ],
    "externalIdentifier": [
      {
        "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
```

```
        "owner": "Master-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      },
      {
        "id": "b3444353-14d5-4cf5-acea-bba60964fcfd",
        "owner": "Secondary-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      }
    ],
    "geographicAddressType": "residential",
    "@type": "GeographicAddress"
  }
```


Response


```
201

{
    "id": "2b8cea8f-642d-42e0-bdb2-6f47fabb3f07",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/2b8cea8f-642d-42e0-bdb2-
6f47fabb3f07",
    "streetNr": "2",
    "streetNrSuffix": "B",
    "streetName": " Libertatii",
    "streetType": "Strada",
    "postcode": "100283",
    "locality": "Ploiesti",
    "city": "Ploiesti",
    "stateOrProvince": "Prahova",
    "country": "Romania",
    "geographicLocation": {
      "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
      "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
      "@type":"GeographicLocation"
    },
    "countryCode": [
      {
        "format": "ISO 3166-1 Alpha-2",
        "value": "RO",
        "@type": "StandardIdentifier"
      }
    ],
    "externalIdentifier": [
      {
        "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
        "owner": "Master-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      },
      {
        "id": "b3444353-14d5-4cf5-acea-bba60964fcfd",
        "owner": "Secondary-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      }
    ],
```

```
    "geographicAddressType": "residential",
    "@type":"GeographicAddress"
  }
```

Updates partially a GeographicAddress

PATCH /geographicAddress/{id}?fields=…

Description

This operation allows partial updates of a GeographicAddress 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
city	
country	
countryCode	
externalIdentifier	
geographicAddressRelationship	
geographicAddressType	
geographicLocation	
geographicSite	
geographicSubAddress	
locality	
postcode	
stateOrProvince	
streetName	
streetNr	

Patchable Attributes	Rule
streetNrLast	
streetNrLastSuffix	
streetNrSuffix	
streetSuffix	
streetType	

Usage samples

Here's an example of a request for updating a geographic address - set postcode to 999283. This example illustrating patch merge

Request

```
PATCH /geographicAddress/2b8cea8f-642d-42e0-bdb2-6f47fabb3f07
Content-Type: application/merge-patch+json

{
    "postcode": "999283",
    "@type":"GeographicAddress"
}
```

Response

```
200

{
    "id": "2b8cea8f-642d-42e0-bdb2-6f47fabb3f07",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/2b8cea8f-642d-42e0-bdb2-
6f47fabb3f07",
    "streetNr": "2",
    "streetNrSuffix": "B",
    "streetName": " Libertatii",
    "streetType": "Strada",
    "postcode": "999283",
    "locality": "Ploiesti",
    "city": "Ploiesti",
    "stateOrProvince": "Prahova",
    "country": "Romania",
    "geographicLocation": {
      "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
      "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
      "@type":"GeoJsonPoint"
    },
    "countryCode": [
      {
        "format": "ISO 3166-1 Alpha-2",
        "value": "RO",
        "@type": "StandardIdentifier"
      }
    ],
```

```
    "externalIdentifier": [
      {
        "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
        "owner": "Master-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      },
      {
        "id": "b3444353-14d5-4cf5-acea-bba60964fcfd",
        "owner": "Secondary-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      }
    ],
    "geographicAddressType": "residential",
    "@type":"GeographicAddress"
  }
```

Here's an example of a request for updating a geographic address - set postcode to 999283. This example illustrating json-patch+json

Request

```
PATCH /geographicAddress/b5d591c5-1d5d-410b-acaf-ae388c0953aa
Content-Type: application/json-patch+json

[
    {
        "op": "test",
        "path": "/postcode",
        "value": "999222"
    },
    {
        "op": "replace",
        "path": "/postcode",
        "value": "999283"
    }
]
```

Response

```
200

{
    "id": "b5d591c5-1d5d-410b-acaf-ae388c0953aa",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/b5d591c5-1d5d-410b-acaf-
ae388c0953aa",
    "streetNr": "2",
    "streetNrSuffix": "B",
    "streetName": " Libertatii",
    "streetType": "Strada",
    "postcode": "999283",
    "locality": "Ploiesti",
    "city": "Ploiesti",
    "stateOrProvince": "Prahova",
    "country": "Romania",
```

```
    "geographicLocation": {
      "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
      "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
      "@type":"GeoJsonPoint"
    },
    "countryCode": [
      {
        "format": "ISO 3166-1 Alpha-2",
        "value": "RO",
        "@type": "StandardIdentifier"
      }
    ],
    "externalIdentifier": [
      {
        "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
        "owner": "Master-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      },
      {
        "id": "b3444353-14d5-4cf5-acea-bba60964fcfd",
        "owner": "Secondary-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      }
    ],
    "geographicAddressType": "residential",
    "@type":"GeographicAddress"
  }
```

Here's an example of a request for updating a geographic address - set postcode to 999283. This example illustrating json-patch-query+json

Request

```
PATCH /geographicAddress/81749e69-9e8a-4ad1-8c77-34a71b9bcf9c
Content-Type: application/json-patch-query+json

[
    {
      "op": "test",
      "path": "$.postcode",
      "value": "999222"
    },
    {
      "op": "replace",
      "path": "$.postcode",
      "value": "999283"
    }
  ]
```

Response

```
200

{
```

```
    "id": "81749e69-9e8a-4ad1-8c77-34a71b9bcf9c",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/81749e69-9e8a-4ad1-8c77-
34a71b9bcf9c",
    "streetNr": "2",
    "streetNrSuffix": "B",
    "streetName": " Libertatii",
    "streetType": "Strada",
    "postcode": "999283",
    "locality": "Ploiesti",
    "city": "Ploiesti",
    "stateOrProvince": "Prahova",
    "country": "Romania",
    "geographicLocation": {
      "id": "67301845-ee43-4984-ba3b-b4fba4b98872",
      "href": "https://host/tmf-
api/geographicLocation/v5/geographicLocation/67301845-ee43-4984-ba3b-b4fba4b98872",
      "@type":"GeoJsonPoint"
    },
    "countryCode": [
      {
        "format": "ISO 3166-1 Alpha-2",
        "value": "RO",
        "@type": "StandardIdentifier"
      }
    ],
    "externalIdentifier": [
      {
        "id": "df882733-6a5d-440a-9a91-d261ba6ac346",
        "owner": "Master-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      },
      {
        "id": "b3444353-14d5-4cf5-acea-bba60964fcfd",
        "owner": "Secondary-SBS",
        "externalIdentifierType": "GeographicAddress",
        "@type":"ExternalIdentifier"
      }
    ],
    "geographicAddressType": "residential",
    "@type":"GeographicAddress"
  }
```


Deletes a GeographicAddress

`DELETE /geographicAddress/{id}`

Description

This operation deletes a GeographicAddress entity.

Operations on GeographicSubAddress

List or find GeographicSubAddress objects

`GET /geographicAddress/{geographicAddressId}/geographicSubAddress?fields`

=...

Description

This operation list GeographicSubAddress 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 for retrieving a subaddresses

Request

```
GET /geographicAddress/f019f4e5-7431-44dc-94d6-97e9a881fe79/geographicSubAddress
Content-Type: application/json
```

Response

```
200

[
    {
        "id": "1d40b27b-c32f-42e8-b473-eb71edff466b",
        "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/f019f4e5-7431-44dc-94d6-
97e9a881fe79/geographicSubAddress/1d40b27b-c32f-42e8-b473-eb71edff466b",
        "levelNumber": "0",
        "levelType": "floor",
        "subAddressType": "floor",
        "subUnit":[
            {
                "subUnitNumber": "1",
                "subUnitType": "Rack",
                "@type":"GeographicSubAddressUnit"
            },
            {
                "subUnitNumber": "2",
                "subUnitType": "Rack",
                "@type":"GeographicSubAddressUnit"
            }
        ],
        "@type":"GeographicSubAddress"
    },
    {
        "id": "fbce45b8-f49b-4cac-ac3a-7e44f4953bcd",
        "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/f019f4e5-7431-44dc-94d6-
97e9a881fe79/geographicSubAddress/fbce45b8-f49b-4cac-ac3a-7e44f4953bcd",
        "levelNumber": "1",
        "levelType": "basement",
        "subAddressType": "subUnit",
        "subUnit":[
            {
                "subUnitNumber": "1",
                "subUnitType": "shelf",
                "@type":"GeographicSubAddressUnit"
```

```
            },
            {
                "subUnitNumber": "2",
                "subUnitType": "shelf",
                "@type":"GeographicSubAddressUnit"
            }
        ],
        "@type":"GeographicSubAddress"
    },
    {
        "id": "5e98b484-c29e-41c6-9fd0-a5fe66be1667",
        "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/f019f4e5-7431-44dc-94d6-
97e9a881fe79/geographicSubAddress/5e98b484-c29e-41c6-9fd0-a5fe66be1667",
        "privateStreetName": "Sackgasse",
        "privateStreetNumber": "A",
        "@type":"GeographicSubAddress"
    }
]
```


Retrieves a GeographicSubAddress by ID

GET /geographicAddress/{geographicAddressId}/geographicSubAddress/{id}?fields=…

Description

This operation retrieves a GeographicSubAddress 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 for retrieving an address resource

Request

```
GET /geographicAddress/1e58c8e7-6869-4c45-8af4-
0fffbe8fc677/geographicSubAddress/1e58c8e7-6869-4c45-8af4-0fffbe8fc677
Content-Type: application/json
```

Response


```
200

{
    "id": "1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
    "href": "https://host/tmf-
api/geographicAddressManagement/v5/geographicAddress/f019f4e5-7431-44dc-94d6-
97e9a881fe79/geographicSubAddress/1e58c8e7-6869-4c45-8af4-0fffbe8fc677",
    "name": "EastGate Shopping Center",
    "buildingName": "EastGate",
    "levelType": "floor",
    "levelNumber": "3",
```

```
    "privateStreetName":"Queen St",
    "privateStreetNumber":"1",
    "subAddressType":"subUnit",
    "subUnitType": "shop",
    "subUnitNumber": "239",
    "@type": "GeographicSubAddress"
}
```

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
1.0	04/15/2017	Pierre Gauthier TM Forum pgauthier@tmforum.org Mariano Belaunde Orange Labs	First Release of the Document.
2.0	11/06/2018	Mariano Belaunde Orange Labs	Alignment with Guidelines 3.0
4.0.0	28-May-2020	Pierre Gauthier TM Forum pgauthier@tmforum.org Mariano Belaunde Orange Labs	Version 4.0 of the API REST
5.0.0	01/04/2024	Pierre Gauthier TM Forum pgauthier@tmforum.org Florin Tene (Cityfibre)	Version 5.0 of the API REST

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