TM Forum Open APIs

Conformance Certification

Company Name: Huawei Technologies Co. Ltd

TM Forum Open API Name: TMF673 - Geographic Address Management

TM Forum Open API Release Version: 4.0.0

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1. **What Product or Solution does your API support?**

SmartCare provides service experience solutions for global CSPs, helping CSPs resolve network performance problems, ensure service quality, build high-quality networks, and improve user experience through planning and design, network optimization, and service experience management. In addition, by opening the capabilities of the platform, global carriers, ecosystem partners and Huawei can work together to transform human-dominant CEM (customer experience management) to intelligent CEM.

**Geographic Address Management API in Huawei SmartCare**

A key component of the solution is GIS positioning which is mapped as part of platform in Huawei SmartCare. The Geographic Address Management API provides an interaction interface with this module and relevant functionalities of Huawei SmartCare. The external systems and the third-parties can access such capabilities via the exposed APIs.

2. **Overview of Certified API**

According to Geographic Address Management Conformance Profile (TMF673B), Geographic Address Management API, it provides a standardized client interface to the address management system. It has one resource: Geographic Location

The resource is used to manage address validation request and response in the GIS positioning. Main attributes of **Resource** are:

- **GeographicAddress**
  - **href** A string. Unique reference of the place.
  - **id** A string. Unique identifier of the place.
  - **city** A string. City that the address is in.
  - **country** A string. Country that the address is in.
  - **geographicLocation** A geographic location ref or value (GeographicLocationRefOrValue).
  - **geographicSubAddress** A list of geographic sub addresses (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.
  - **postcode** A string. descriptor for a postal delivery area, used to speed and simplify the delivery of mail (also known 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.
- **streetType** A string. alley, avenue, boulevard, brae, crescent, drive, highway, lane, terrace, parade, place, tarn, way, wharf.
- **name** A string. A user-friendly name for the place, such as [Paris Store], [London Store], [Main Home].
- **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].
- **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.

**GeographicSubAddress**
- **href** A string. Link to the subAddress.
- **id** A string. Unique Identifier of the subAddress.
- **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.
- **buildingName** A string. allows for buildings that have well-known names.
- **subUnitNumber** A string. the discriminator used for the subunit often just a simple number e.g. FLAT 5, may also be a range.
- **subUnitType** A string. the type of subunit e.g.BERTH, FLAT, PIER, SUITE, SHOP, TOWER, UNIT, WHARF.

**GeographicAddressValidation**
- **alternateGeographicAddress** A list of geographic addresses (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.
- **href** A string. An URI used to access to the address validation resource.
- **id** A string. Unique identifier of the Address Validation.
- **State** A string. the State that the address is in.
- **provideAlternative** A boolean. Indicator provided by the requester to specify if alternate addresses must be provided in case of partial or fail result.
- **status** A string. Status of the address validation (inProgress, terminatedWithError, done).
• **validAddress** A geographic address (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.

• **validationDate** A date time (DateTime). Date when the address validation is performed.

• **validationResult** A string. Result of the address validation (success, partial, fail).

3. **Architectural View**

The following diagram shows a functional architecture view of Huawei SmartCare:

Mapping between Huawei SmartCare and TMF Open API

4. **Test Results**

Click here to view the test results: HUAWEI-TMF673-HTMLResults.html