TM Forum Open APIs

Conformance Certification

Company Name: Huawei Technologies Co. Ltd

TM Forum Open API Name: TMF635 - Usage Management

TM Forum Open API Release Version: 4.0.0

Report Date: 04/06/2024
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).

**Usage Management API in Huawei SmartCare**
A key component of the solution is API Openness Management which is mapped as part of platform in Huawei SmartCare. The Usage 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 Resource Inventory Management Conformance Profile (TMF635B), The Usage Management API provides a standardized mechanism for usage management such as the creation, update, retrieval, import and export of a collection of usages. It has two resources: Usage and UsageSpecification.

**Usage**
An occurrence of employing a Product, Service, or Resource for its intended purpose, which is of interest to the business and can have charges applied to it. It is comprised of characteristics, which represent attributes of usage.

Main attributes are:

- **Href** An uri (Uri). Hyperlink reference.
- **Id** A string. unique identifier.
- **@baseType** A string. When sub-classing, this defines the super-class.
- **@schemaLocation** An uri (Uri). 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.
- **Description** A string. Description of usage.
• **ratedProductUsage** A list of rated product usages (RatedProductUsage [*]). An occurrence of employing a product for its intended purpose with all rating details.

• **relatedParty** A list of related parties (RelatedParty [*]). Related Entity reference. A related party defines party or party role linked to a specific entity.

• **Status** A usage status type (UsageStatusType). Possible values for the status of the Usage.

• **usageCharacteristic** A list of usage characteristics (UsageCharacteristic [*]). Provides the value of a given characteristic.

• **usageDate** A date time (DateTime). Date of usage.

• **usageSpecification** A usage specification reference (UsageSpecificationRef). UsageSpecification is a detailed description of a usage event that are of interest to the business and can have charges applied to it. It is comprised of characteristics, which define all attributes known for a particular type of usage.

• **usageType** A string. Type of usage.

### UsageSpecification

• **Description** A string. Description of the specification.

• **isBundle** A boolean. isBundle determines whether specification represents a single specification (false), or a bundle of specifications (true).

• **lastUpdate** A date time (DateTime). Date and time of the last update of the specification.

• **lifecycleStatus** A string. Used to indicate the current lifecycle status of this catalog item.

• **Name** A string. Name given to the specification.

• **Version** A string. specification version.

• **Href** An uri (Uri). Hyperlink reference.

• **Id** A string. unique identifier.

• **@baseType** A string. When sub-classing, this defines the super-class.

• **@schemaLocation** An uri (Uri). 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** A list of attachment ref or values (AttachmentRefOrValue [*]). Attachments that may be of relevance to this specification, such as picture, document, media.

• **Constraint** A list of constraint references (ConstraintRef [*]). This is a list of constraint references applied to this specification.

• **entitySpecRelationship** A list of entity specification relationships (EntitySpecificationRelationship [*]). Relationship to another specification.

• **relatedParty** A list of related parties (RelatedParty [*]). Parties who manage or otherwise have an interest in this specification.

• **specCharacteristic** A list of characteristic specifications (CharacteristicSpecification [*]). List of characteristics that the entity can take.

• **targetEntitySchema** A target entity schema (TargetEntitySchema). Pointer to a schema that defines the target entity.

• **validFor** A time period. The period for which this REST resource is valid.

### 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-TMF635-HTMLResults.html