TM Forum Open APIs

Conformance Certification

Company Name: Huawei Technologies Co. Ltd

TM Forum Open API Name: TMF639 - Resource Inventory 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.

Resource Inventory Management API in Huawei SmartCare

A key component of the solution is distributed storage which is mapped as part of platform in Huawei SmartCare. The Resource Inventory 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 (TMF639B), The Resource Inventory API can be used to query the resource instances for a customer via Self Service Portal or the Call Centre operator can query the resource instances on behalf of the customer while a customer may have a complaint or a query. It has one resource: Resource.

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

- **activationFeature** A list of features (Feature [*]). Applicable configuration features of a resource for activation.
- **administrativeState** A resource administrative state type (ResourceAdministrativeStateType). Tracks the administrative state of the resource, such as locked, unlocked, shutdown and so on.
- **attachment** A list of attachment ref or values (AttachmentRefOrValue [*]). the attribute type, schemaLocation and referredType are related to the contained entity and not to AttachmentRefOrValue itself.
- **category** A string. Category of the concrete resource. e.g Gold, Silver for MSISDN concrete resource.
• **description** A string. Free-text description of the resource.
• **endOperatingDate** A date time (DateTime). The date till the resource is operating.
• **href** A string. The URI for the object itself.
• **id** A string. Identifier of an instance of the resource. Required to be unique within the resource type. Used in URIs as the identifier for specific instances of a type.
• **name** A string. A string used to give a name to the resource.
• **note** A list of notes (Note [*]). Extra information about a given entity.
• **operationalState** A resource operational state type (ResourceOperationalStateType). Tracks the operational state of the resource, such as enable, disable and so on.
• **place** A related place ref or value (RelatedPlaceRefOrValue). Related Entity reference. A related place defines a place described by reference or by value linked to a specific entity. The polymorphic attributes @type, @schemaLocation & @referredType are related to the place entity and not the RelatedPlaceRefOrValue class itself.
• **relatedParty** A list of related parties (RelatedParty [*]). Related Entity reference. A related party defines party or party role linked to a specific entity.
• **resourceCharacteristic** A list of characteristics (Characteristic [*]). Describes a given characteristic of an object or entity through a name/value pair.
• **resourceRelationship** A list of resource relationships (ResourceRelationship [*]). Linked resources to the one instantiate, such as [bundled] if the resource is a bundle and you want to describe the bundled resources inside this bundle; [reliesOn] if the resource needs another already owned resource to rely on (e.g. an option on an already owned mobile access resource) [targets] or [isTargeted] (depending on the way of expressing the link) for any other kind of links that may be useful.
• **resourceStatus** A resource status type (ResourceStatusType). Tracks the resource status of the resource, such as standby, alarm, available, reserved, suspended and so on.
• **resourceVersion** A string. A field that identifies the specific version of an instance of a resource.
• **startOperatingDate** A date time (DateTime). The date from which the resource is operating.
• **usageState** A resource usage state type (ResourceUsageStateType). Tracks the usage state of the resource, such as idle, active, busy and so on.

### 3. Architectural View
The following diagram shows a functional architecture view of Huawei SmartCare:
4. **Test Results**

Click here to view the test results: [HUAWEI-TMF639-HTMLResults.html](HUAWEI-TMF639-HTMLResults.html)