TM Forum Open APIs

Conformance Certification

Company Name: Huawei Technologies Co. Ltd

TM Forum Open API Name:
TMF640 - Service Activation and Configuration

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.

**Service Activation and Configuration API** in Huawei SmartCare

A key component of the solution is data asset visualization which is mapped as part of platform in **Huawei SmartCare**. The **Service Activation and Configuration API** is to provide a consistent and standardized mechanism to query, create and modify service. This is particularly useful to configure service or to manage the service lifecycle. 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 (TMF640B), The **Service Activation and Configuration API** provides a standardized mechanism for service management such as the creation, inquiry and modification. It has two resources: Monitor and Service.

**Monitor**

Main attributes are:

- **href** A string, reference to this monitor.
- **id** A string. Identifier of an instance of the monitor. Required to be unique within the resource type. Used in URIs as the identifier for specific instances of a type.
- **request** A request (Request). Represents the request.
- **response** A response (Response). Represents the response.
- **sourceHref** A string. The monitored resource href.
- **state** A string. The Monitor state of the resource. InProgress, InError, Completed.

**Service**

Main attributes are:

- **category** A string. Is it a customer facing or resource facing service.
- **description** A string. Free-text description of the service.
- **endDate** A date time (DateTime). Date when the service ends.
• **feature** A list of features (Feature [*]). A list of feature associated with this service.
• **hasStarted** A boolean. If TRUE, this Service has already been started.
• **href** A string. Reference of the service.
• **id** A string. Unique identifier of the service.
• **isBundle** A boolean. If true, the service is a ServiceBundle which regroup a service hierachy. If false, the service is a 'atomic' service (hierachy leaf).
• **isServiceEnabled** A boolean. If FALSE and hasStarted is FALSE, this particular Service has NOT been enabled for use - if FALSE and hasStarted is TRUE then the service has failed.
• **isStateful** A boolean. If TRUE, this Service can be changed without affecting any other services.
• **name** A string. Name of the service.
• **note** A list of notes (Note [*]). A list of notes made on this service.
• **place** A list of related place ref or values (RelatedPlaceRefOrValue [*]). A list of places (Place [*]). Used to define a place useful for the service (for example a geographical place where the service is installed).
• **relatedEntity** A list of related entity ref or values (RelatedEntityRefOrValue [*]). A list of related entity in relationship with this service.
• **relatedParty** A list of related parties (RelatedParty [*]). A list of related party references (RelatedParty [*]). A related party defines party or party role linked to a specific entity.
• **serviceCharacteristic** A list of characteristics (Characteristic [*]). A list of characteristics that characterize this service (ServiceCharacteristic [*]).
• **serviceDate** A string. Date when the service was created (whatever its status).
• **serviceOrderItem** A list of related service order items (RelatedServiceOrderItem [*]). A list of service order items related to this service.
• **serviceRelationship** A list of service relationships (ServiceRelationship [*]). A list of service relationships (ServiceRelationship [*]). Describes links with other service(s) in the inventory.
• **serviceSpecification** A service specification reference (ServiceSpecificationRef). The specification from which this service was instantiated.
• **serviceType** A string. Business type of the service.
• **startDate** A date time (DateTime). Date when the service starts.
• **startMode** A string. This attribute is an enumerated integer that indicates how the Service is started, such as: 0: Unknown; 1: Automatically by the managed environment; 2: Automatically by the owning device; 3: Manually by the Provider of the Service; 4: Manually by a Customer of the Provider; 5: Any of the above.
• **state** A service state type (ServiceStateType). The life cycle state of the service, such as designed, reserved, active, etc...
• **supportingResource** A list of resource references (ResourceRef [*]). A list of supporting resources (SupportingResource [*]). Note: only Service of type RFS can be associated with Resources
• **supportingService** A list of service ref or values (ServiceRefOrValue [*]). A list of supporting services (SupportingService [*]). A collection of services that support this service (bundling, link CFS to RFS).

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

**Mapping between Huawei SmartCare and TMF Open API**

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<td>Event Management</td>
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4. **Test Results**

Click here to view the test results: [HUAWEI-TMF640-HTMLResults.html](HUAWEI-TMF640-HTMLResults.html)