TM Forum Open APIs

Conformance Certification

Company Name: Huawei Technologies Co. Ltd

TM Forum Open API Name: TMF657 - Service Quality 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 Site Management API in Huawei SmartCare**
A key component of the solution is service quality &threshold Management which is mapped as part of platform in **Huawei SmartCare**. The quality management of SmartCare includes three sub-modules: KQI/KPI Threshold, abnormal event detection and poor quality demarcation. The **Service Quality 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 Service Quality Management Conformance Profile (TMF657B), **Service Quality Management** API , Through this API, any Enterprise is able to access a Service Quality Management application and extract Service Level Specifications and associated Service Level Objectives (SLO) and their thresholds. They can monitor violation of these thresholds and generate trending reports over a period of time and send threshold crossing alarms so that when service quality degrades and a contracted Service Level Agreement (or one of its constituents) is at risk, appropriate actions can be performed. It has two resource: ServiceLevelObjective and ServiceLevelSpecification. Service level objectives are defined in terms of parameters and metrics, thresholds, and tolerances associated with the parameters.
A Service Level Specification represents a pre-defined or negotiated set of Service Level Objectives. In addition, certain consequences are associated with
not meeting the Service Level Objectives. Service Level Agreements are expressed in terms of Service Level Specifications.

Main attributes of **Resources** are:

- **ServiceLevelObjective**
  - `conformanceComparator` A string. An operator that specifies whether a Service Level Objective is violated above or below the conformanceTarget.
  - `conformanceTarget` A string. A value used to determine if Service Level Objective is met. The data type should be adjusted case by case.
  - `href` A string. The hyperlink to access a service level objective.
  - `id` A string. The identifier of a service level objectives.
  - `conformancePeriod` A time period. An interval of time during which the Conformance Target must be measured.
  - `graceTimes` A string. The number of times an objective can remain un-updated without a violation of a Service Level Agreement in reference to a measurement period and/or Service Level Agreement reporting period.
  - `name` A string. The name of the service level objectives.
  - `serviceLevelObjectiveConsequence` A list of service level spec consequences (ServiceLevelSpecConsequence[*]). A list of consequences for this objective.
  - `serviceLevelObjectiveParameter` A service level spec parameter (ServiceLevelSpecParameter). A parameter for this objective.
  - `thresholdTarget` A string. A value that used to specify when a warning should be used that indicates an objective is danger of not being met. Notice, the data type should be adjusted case by case.
  - `tolerancePeriod` A time period. A value that specifies the allowable time variation of a conformance.
  - `toleranceTarget` A string. A value that specifies the allowable variation of a conformance Target. The data type should be adjusted case by case.
  - `validFor` A time period. A valid duration of a thing.

- **ServiceLevelSpecification**
  - `href` A string. The hyperlink to access a service level specification.
  - `id` A string. The identifier to a service level specification.
  - `name` A string. The name of Service Level Specification.
  - `Description` A string. A brief introduction of a service level specification.
  - `relatedServiceLevelObjective` A list of service level objective references (ServiceLevelObjectiveRef[*]). A list of objectives related to this service level specification.
  - `validFor` A time period. A valid duration of a thing.

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-TMF657-HTMLResults.html