TM Forum Open APIs

Conformance Certification

Company Name: Vodafone Group (Reference Implementation)

TM Forum Open API Name:
TMF638 - Service Inventory Management

TM Forum Open API Release Version: 4.0.0

Report Date: 26/01/2024
1. **What Product or Solution does your API support?**

The Service Inventory API provides a standardized and consistent mechanism for managing service instances across various touchpoints within Vodafone's ecosystem. This includes:

Self-Service Portal: Customers can access and manage their services, such as viewing details, modifying features, and requesting changes.

Call Center: Agents can efficiently view and modify customer service instances while addressing inquiries or resolving complaints.

Service Order Management: The API is used to automate service creation, modification, and deletion processes triggered by customer orders.
2. Overview of Certified API

The Service Inventory API adheres to the TMF638 standard and offers the following functionalities:
- Retrieve: Query and retrieve service instances based on various filters, including customer ID, service ID, and service type.
- Partial Update: Modify specific attributes of a service instance, such as features or service characteristics.
- Create (Admin-Only): Create new service instances within the inventory, including setting default values and applying appropriate creation rules.
- Delete (Admin-Only): Permanently remove service instances from the inventory (restricted to authorized users).
- Event Notifications: Subscribe to real-time notifications regarding service lifecycle events, such as creation, modification, or deletion.

Conformance level: Full conformance
Implementation Technology: Java Spring Boot
Deployment Environment: Vodafone's cloud infrastructure
3. **Architectural View**

The frontend channels/application that invokes TMF API exposed via an API Management layer. Request traverses the TMF microservice layer towards the secure backend system.
4. Test Results

Comprehensive functional and non-functional testing techniques were employed during the evaluation of the API. This rigorous testing process encompassed various aspects, including authentication, authorization, and the overall API functionality.

The API underwent thorough functional testing to ensure that all interface operations performed as expected. Test cases were designed to validate the accuracy and completeness of the retrieved data.

Non-functional aspects were validated ensuring encompassed performance testing, which assessed the API's response time, scalability, and overall system load handling capacity. Additionally, security testing was conducted to identify and mitigate vulnerabilities that could potentially compromise the API's security posture.

The conformance verification process for the REST API successfully validated its functionality, security, and alignment with the Business Process Framework. The rigorous testing procedures, including authentication, authorization, functional, and non-functional testing, ensure that the API is robust, secure, and capable of providing reliable customer management.

In conclusion, this TMF API serves as a vital component to ensure the reliable customer management as a service. Its adherence to conformance standards and rigorous testing procedures underscores its reliability and utility.

For any inquiries or further details about this conformance verification report, please contact the Digital Engineering team of Vodafone Group.

Click here to view the test results: VODAFONE-TMF638RW-HTMLResults.html