TM Forum Open APIs

Conformance Certification

Company Name: **Vodafone Group (Reference Implementation)**

**TM Forum Open API Name:**
**TMF656 - Service Problem Management**

**TM Forum Open API Release Version:** **4.0.0**

**Report Date:** **22/01/2024**
1. **What Product or Solution does your API support?**

Product: Vodafone Network Operations Center (NOC).
Solution: Service Problem Management and Resolution
The Service Problem Management API empowers Vodafone's Network Management System to effectively manage service-related problems, ensuring optimal network performance and customer satisfaction.

Sample Use Cases:
- Centralized Service Problem Management: The API enables a unified approach to managing service problems across Vodafone's network and IT infrastructure, streamlining problem identification, prioritization, tracking, and resolution.
- Enhanced Customer Experience: Rapid problem resolution through efficient collaboration between internal teams and external partners leads to improved customer satisfaction and reduced service outages.
- Proactive Problem Prevention: Insights from problem data enable proactive measures to minimize future service disruptions, ensuring network reliability and availability.
2. Overview of Certified API

API Description: Provides standardized operations for service problem management and resolution.

API Endpoints Implemented:
- Retrieve a Problem or a collection of Problems based on filter criteria
- Partially update Problems (including updating rules)
- Create a Problem (including default values and creation rules)
- Delete a Problem (for administration purposes)
- Manage the notification of events

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-TMF656RW-HTMLResults.html