TM Forum Open APIs

Conformance Certification

Company Name: Vodafone Group (Reference Implementation)

TM Forum Open API Name:
TMF672 – User Role Permission

TM Forum Open API Release Version: 4.0.0

Report Date: 13/10/2023
1. **What Product or Solution does your API support?**

The TMF672 User Role Permission API is a pivotal component within the Vodafone ecosystem. It plays a critical role in managing and defining the permissions and access levels for various internal and external user roles.

2. **Overview of Certified API**

TMF672 User Role Permission API adheres to TM Forum's Open API standards, offering a standardised and secure approach to user role management. It is built on a RESTful architecture, which simplifies integration and usage. This API provides a comprehensive set of endpoints for managing user roles and permissions, making it a fundamental tool within Vodafone.

3. **Architectural View**

The architectural view of the TMF672 User Role Permission API comprises of several key components that together deliver a robust user role management solution.

Permission Database: At the heart of the system lies a scalable and high-performance permission database. This database stores crucial information related to user roles, their associated permissions, and access control policies. It ensures that only authorized actions are carried out by users, safeguarding sensitive data and system integrity.

API Gateway: The API is exposed through a dedicated API gateway, responsible for handling essential security measures such as authentication and authorization. It manages access control, rate limiting, and request routing, ensuring secure and efficient interactions with the user role and permission system.

Business Logic Layer: This layer encompasses the core business rules and logic governing user role management. It enforces strict validation of permissions, access rights, and user role lifecycle management. Any changes or updates to user roles are processed through this layer, ensuring that all actions are compliant with established policies.

Integration Points: The system offers seamless integration points for external and internal system consumers.

Scalability: The architectural design is inherently scalable, allowing for the addition of new user roles and permission sets without compromising system performance. This scalability is crucial in addressing the ever-evolving demands of the dynamic telecommunications market, where flexibility and adaptability are key.
The TMF672 User Role Permission API is a vital asset for telecommunications service providers, ensuring that user access and privileges are meticulously managed and controlled. By adhering to TM Forum's Open API standards and implementing this robust architecture, Vodafone can streamline our operations, enhance security, and efficiently adapt to the evolving telecommunications landscape.

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 communication mechanism.

In conclusion, TMF672 User Role Permissions API, serves as a vital component. 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-TMF672RW-HTMLresults.html