TM Forum Open APIs

Conformance Certification

Company Name: Marand Software

TM Forum Open API Name: TMF637 – Product Inventory Management

TM Forum Open API Release Version: 4.0.0

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1. **What Product or Solution does your API support?**

This conformance certification report covers the real-world product inventory management API exposed by Marand’s **360 Customer / Inventory** and deployed at **Telekom Slovenije**.

Telekom Slovenije is the leading provider of comprehensive communication services in Slovenia. It connects users and simplifies their lives, and ensures security through a range of the most advanced ICT services and solutions. Telekom Slovenije's portfolio encompasses fixed and mobile communications (fixed and mobile telephony, fixed and mobile broadband services, IP telephony, and IP television), digital content and services, multimedia services and digital advertising, system integration, and cloud services (cloud computing), as well as the construction and maintenance of telecommunications networks. Telekom Slovenije also operates through its subsidiaries on the markets of South-Eastern Europe in Kosovo, Bosnia and Herzegovina, Croatia, Serbia, Montenegro and North Macedonia.

Marand’s **360 Customer / Inventory** is a customer & product inventory management system, designed and engineered for communications service providers (CSPs). 360 Customer / Inventory is a **single point of truth for customer data, billing account data, and subscription data** (including assigned products, product characteristics, and assigned prices). 360 Customer / Inventory manages all customer & product-related data for **fulfillment, assurance, and billing** processes, as well as for various systems of **digital customer engagement**. 360 Customer / Inventory easily accommodates various **products and services**: from traditional telecom services to modern cloud-based ICT services and industry-specific vertical solutions delivered by either CSP or its ecosystem partners. The **product inventory** component can store **product instances** for any product specification & product offering defined in the **unified product catalog** (UPC).

TMF637 product inventory management API is built on top of Customer 360 / Inventory that is used as an inventory consolidation platform wrapping several legacy and strategic product inventory components within Telekom Slovenije. These inventories comprise mobile, B2B/wholesale, and B2C portfolios. By implementing several legacy proprietary APIs and exposing product inventories through a unified TMF637 API a strangler pattern is implemented. Figure 1 presents a high-level solution architecture and outlines the certified API.
Figure 1: high-level solution architecture
2. **Overview of Certified API**

360 Customer / Inventory exposes a TMF637 compliant API to make product inventory data available to various data consumers. The table below lists supported resource and REST operations.

<table>
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<tr>
<th>Resource</th>
<th>Description</th>
<th>REST Operations</th>
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| Product  | The API comprises operations to **read, list, create, update, and delete products**. A product is procured by a customer or other interested party playing a party role in the form of a **product offering**. A product is realized as one or more service(s) and / or resource(s). Products may include **characteristics** and **characteristic values** and may be **related** with other products (e.g. bundles, add-ons, enabling/supporting products etc.). The API also manages assigned **prices** and **price alterations**. | • Get  
• List  
• Post  
• Patch  
• Delete |
3. Architectural View

Product catalog management component exposes a TMF620 API that makes commercial product catalog data available to product order capture & validation and product configurator components (both components are a part of OmniCPQ software product).

Existing product inventories are persisted in separate legacy and strategic inventories (mobile, B2B/wholesale, B2C) and wrapped with “Customer 360 inventory” which exposes consolidated inventory in a unified way through TMF637 API. This way, a strangler pattern is implemented.

Product configurator (PC) component relies on product catalog data (exposed through TMF620) and existing product inventory (exposed through TMF637). PC serves two main purposes: to determine commercial offering eligibility (qualification) and to drive product configuration in various contexts (e.g. quote, order, shopping cart). Product configurator exposes TMF679 and TMF760 APIs.

Product order capture and validation (POCV) component comprises front-end and back-end components for managing quotes and product orders. POCV relies on TMF679 and TMF760 APIs exposed by the PC for offering qualification and configuration. POCV exposes TMF648 and TMF622 APIs for quote management and product order management.

Figure 2 depicts above mentioned open digital architecture (ODA) components with their exposed and consumed APIs.
Figure 2: component diagram shows ODA components and exposed and consumed APIs

4. **Test Results**

Click here to see the test results: [MARAND-TMF637RW API-HTML Results]