TM Forum Open APIs

Conformance Certification

Company Name: XACRI A s.r.l.

TM Forum Open API Name:
TMF641 - Service Order Management

TM Forum Open API Release Version: 4.0.0

Report Date: 07/12/2023
1. **What Product or Solution does your API support?**

Xacria is the creator of XNO (Xacria Network Orchestrator), an innovative OSS solution that operates on an event-driven and 100% microservice-based architecture. This disruptive technology automates network and service configurations, focusing particularly into telecommunications companies.

The XNO solution interface is based into a pool of TMF APIs that plays a pivotal role in orchestrating network and service configurations. Our product streamlines the entire OSS process by effortlessly handling intents received through industry-standard frameworks such as TMF641 for Service Order request, TMF652 for Resource Order request, TMF638 for Service Inventory requests, and TMF639 for Resource Inventory request.

To effectively manage these diverse requests and uphold the core Event-Driven architecture of XNO, our internal processes are synchronized using TMF701 Process Flow for efficient communication purposes.
2. Overview of Certified API

The TMF641 assumes the pivotal role of overseeing the initiation of provisioning intents, transmitting to XNO only the essential details required for successful provisioning. Within the architectural framework of XNO, the TMF641 gateway takes charge of receiving orders compliant with TMF641 standards, validating them through synchronous HTTP responses, and subsequently dispatching the orders onto the Message Broker for further processing. The subsequent stages of processing are seamlessly executed by the XNO engine in tandem with the Task Flow microservices.
3. Architectural View

As previously outlined, XNO operates as a bona fide event-driven orchestrator, orchestrating microservices through the initiation of Task Flow Events in strict accordance with the TMF701 standard. These events are seamlessly executed on a Message Broker, including options such as Kafka or Solace. The accompanying figure delineates the platform’s logical architecture, highlighting the pivotal role played by the Distributed Workflow Engine at its core.

![XNO Logical Architecture Diagram](image-url)
4. **Test Results**

The staging URL `http://xno-gateway-tmf641` configured in the CTK is the internal endpoint of the TMF641 microservice in the Fastweb deployment. This microservice is in charge to receive and handle the TMF641 requests coming by NBI OSS/BSS platforms.

Due to Fastweb security policies and to the fact that the CTK script provided with the TMF 641 conformance tests in Fastweb doesn’t support AUTH, is not possible to run the test in our production environment. As workaround we run the tests in our pre-production environment. Please, find attached the test result of tests run on date 06/12/2023 in Fastweb pre-production environment.

Alberto Licciardello, Manager of Network Engineering (Fastweb)  
Luca Maragnani, Manager of Network Automation Development (Fastweb).  
Danilo Cantarella, Senior Software Engineer (Xacria).

Click here to view the test results: [XACRIA-TMF641RWAPI-htmlResults.html](#)