



TM Forum Open APIs Conformance Certification

Company Name:

6d Technologies

TM Forum Open API Name:

TMF638 - Service Inventory Management

TM Forum Open API Release Version:

5.0.0

Date: 17/07/2025

1. What Product or Solution does your API support?

6D's Service Order Management (SOM) platform is an agile and converged solution that helps Digital Service Providers (DSPs) manage the complexities of service ordering. The platform is aligned with TM Forum's Open Digital Architecture (ODA) and its Product, Service, and Resource (PSR) model, streamlining operations and enabling rapid service creation.

Implementation of the Service Inventory API

A core component of the 6D SOM platform is its Service Inventory or Registry, which is responsible for managing and exposing service-related data. The key functions of this component include:

- **Inventory Management:** Storing and exposing Customer-Facing Service (CFS) instances and mapping Resource-Facing Service (RFS) instances to physical, logical, and virtual resources.
- **Search and Retrieval:** Enabling advanced search and filtering to quickly locate specific inventory items.
- **Monitoring and Auditing:** Providing real-time monitoring and tracking of inventory items, along with robust inventory control and data integrity.

TMFC008, or the Service Inventory Component, is a software building block within TM Forum's Open Digital Architecture (ODA). Its primary function is to store and expose a catalog of Customer-Facing Services (CFS) and Resource-Facing Services (RFS), and manage their relationships with other network and infrastructure resources. To achieve this, the component exposes its functionality through the TMF638 Service Inventory Management API, which provides a standardized mechanism for querying and manipulating the service inventory. This tight coupling ensures that the API's operations, such as retrieving, creating, and updating service instances, are directly aligned with the core responsibilities of the Service Inventory Component.

Value Proposition of 6d's SOM:

- Streamlined Operations & Efficiency by providing Automated Order Fulfilment and Reduced Order Fallout
- Enhanced Agility & Innovation by Supporting Diverse Service Portfolios and Rapid Service Creation & Time-to-Market
- Seamless Interoperability & Integration with easy Multi-Network Environments Management and Vendor Interoperability
- Superior Customer Experience with Faster & Accurate Service Delivery and Reliable Service Availability Information
- Domain Driven Design adaptation for Microservices Development
- CNF based Modular and Scalable solution
- Private/Public cloud agnostic deployment support
- Distributed Architecture support to meet the demands of 5G and IoT Solutions
- Compliance with the standards (3GPP & TMForum) based interworking
- Configurability over Customization

2. Overview of Certified API

The **TM Forum 638 Service Inventory Management API** is a standardized REST-based API that provides a consistent mechanism for applications to query and manipulate a service inventory. It is a key component of the TM Forum Open Digital Architecture (ODA), designed to facilitate the management of the complete lifecycle of services within a service provider's inventory.

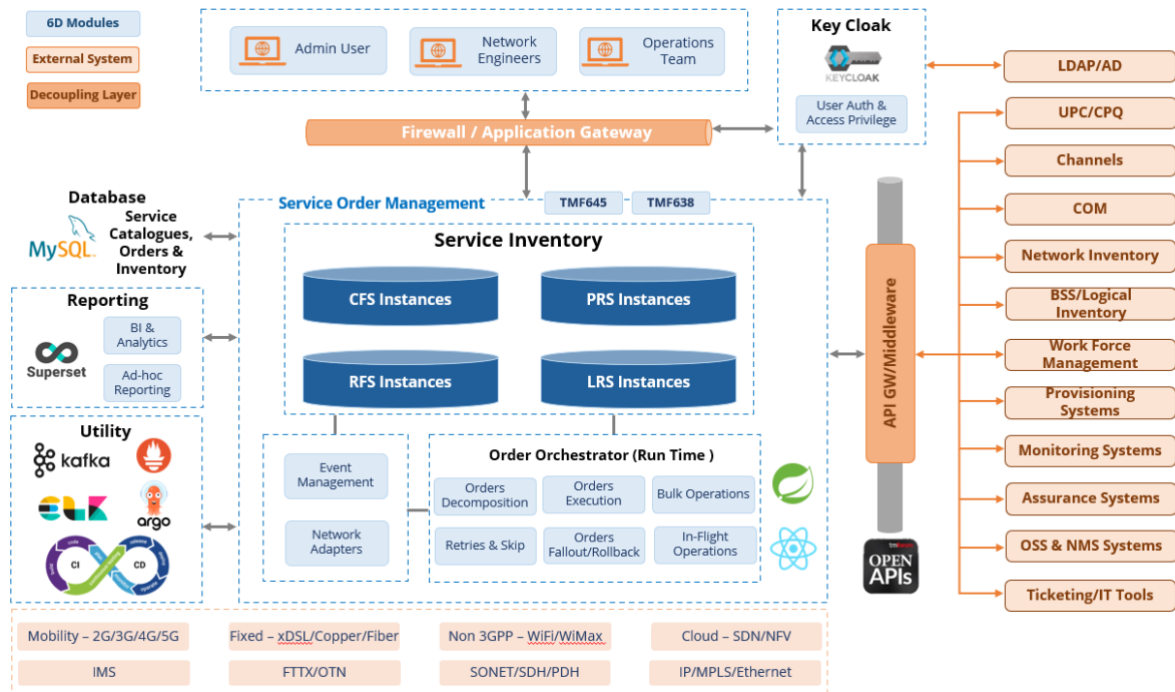
This Service Inventory API enables operations such as:

- **Retrieving** a list of service instances, allowing for filtering based on various criteria.
- **Creating** new service instances.
- **Updating** existing service instances.
- **Deleting** service instances.

Sample Use cases supported by SOM through TMF 638 Service Inventory API:

- **Inventory Creation and Organization:** Creating new inventory items or instances and organizing them logically for efficient management.
- **Search and Filtering:** Locating specific service inventory items quickly by enabling advanced search and filtering capabilities.
- **Monitoring and Tracking:** Providing real-time monitoring and tracking of service inventory items to ensure operational accuracy and availability.
- **Auditing and Control:** Facilitating inventory control to ensure data integrity and supporting auditing processes for compliance and governance.
- **Data Consistency:** Ensuring that any creation or update of inventory items maintains consistency with related service specifications in the Service Catalog.

3. Architectural View



The above diagram gives a functional view of Service Order Management that exposes Service Inventory API (TMF638) to external services.

4. Test Results

This API has been tested as part of end-to-end journeys/Business Processes as well as at API level in terms of Authentication & Authorization, Functionalities & Operations that are supported through this API.

Click here to view the test results: [6D-SOM-TMF638-HTMLReport.html](#)