



TM Forum Open APIs Conformance Certification

Company Name:

6d Technologies

TM Forum Open API Name:

TMF662 – Entity Catalog

TM Forum Open API Release Version:

4.0.0

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1. What Product or Solution does your API support?

6D's Unified Product Catalog (UPC) enables telecom operators to streamline product lifecycle management, reduce operational complexity, and enhance customer experience by offering a centralized and scalable solution for managing diverse product portfolios. The UPC serves as the Commercial Product Catalog, seamlessly integrated into the ecosystem or functioning as a stand-alone solution through required interfaces with key external systems, including Commercial Order Manager, Technical Product Catalog (SOM), Product Inventory, Asset and Resource Inventory, Channel Management Layer, CRM Systems and so on.

6d's UPC serves as a bi-directional master repository for all product and service types, enabling operators to model, build, price, bundle, blend, maintain, and retire offerings efficiently. This centralized commercial Catalog is pre-integrated with the Digital BSS Suite and adheres to TMF ODA (TMFC001 Product Catalog Management and TMFC027 Product Configurator) and Open API (TMF620 Product Catalog Management, TMF679 Product Offering Qualification and TMF760 Product Configuration Management, TMF622 Entity Catalog) standards, ensuring seamless integration with third-party systems.

Key Features of 6D's UPC:

- Unified Product Management
 - Offers a single interface for managing products across diverse technologies and networks, providing a consolidated view of product offerings.
 - Supports products for both Retail (B2C) and Enterprise (B2B) segments (Retail, Enterprise, Wholesale, Partner, MVNE/MVNO, Marketplaces), covering a wide spectrum of networks:
 - 3GPP & Non 3GPP (Mobile (2G/3G/4G/5G/IMS), Fixed, Broadband, Fiber, Satellite, WiFi, WiMax)
 - Different types of services Mobility, IPTV, VAS, IoT, Content, Cloud, Devices, Adjacent Verticals
- Integration-Ready Architecture
 - Enabling Catalog Driven integrations
 - Allows omnichannel capabilities and consistent product & pricing policy & rules
 - Designed for interoperability with external modules through TMF Open APIs, ensuring smooth alignment with the broader

- ecosystem for order management, inventory, and customer interactions.
- Multi-Vendor integrations
- Configurable Integrations adaptability
- Deployment Models
 - Central/Master Product Catalog managing entire products of DSP
 - Federated Model where consolidation of catalogs can be done
 - Master/Slave model where Master Catalog can provision products into slave catalogs
- Inbuilt Intelligence
 - AI/Gen-AI native capabilities to enhance the Catalog Capabilities and usability
 - Intelligent & Intuitive product creation process along with product duplication/similarities identification
 - Simplified product creation through Gen-AI
 - Product Pricing & bundling recommendations
 - Uptake/Purchase predictions
- User-Friendly GUI
 - An intuitive graphical interface enables streamlined management of product attributes, hierarchies, and relationships.
 - Create once & Publish in any environment
 - Ready templates for plethora of Product Offers & Bundles
 - Lego-blocks based Product Offer creation

2. Overview of Certified API

The Entity Catalog API is designed to provide a generalized catalog for various types of entities within a telecommunications or digital service provider environment. Its goal is to create a flexible catalog system that can manage arbitrary entities, thereby reducing the need for separate, specific catalogs beyond the standard product, service, and resource catalog.

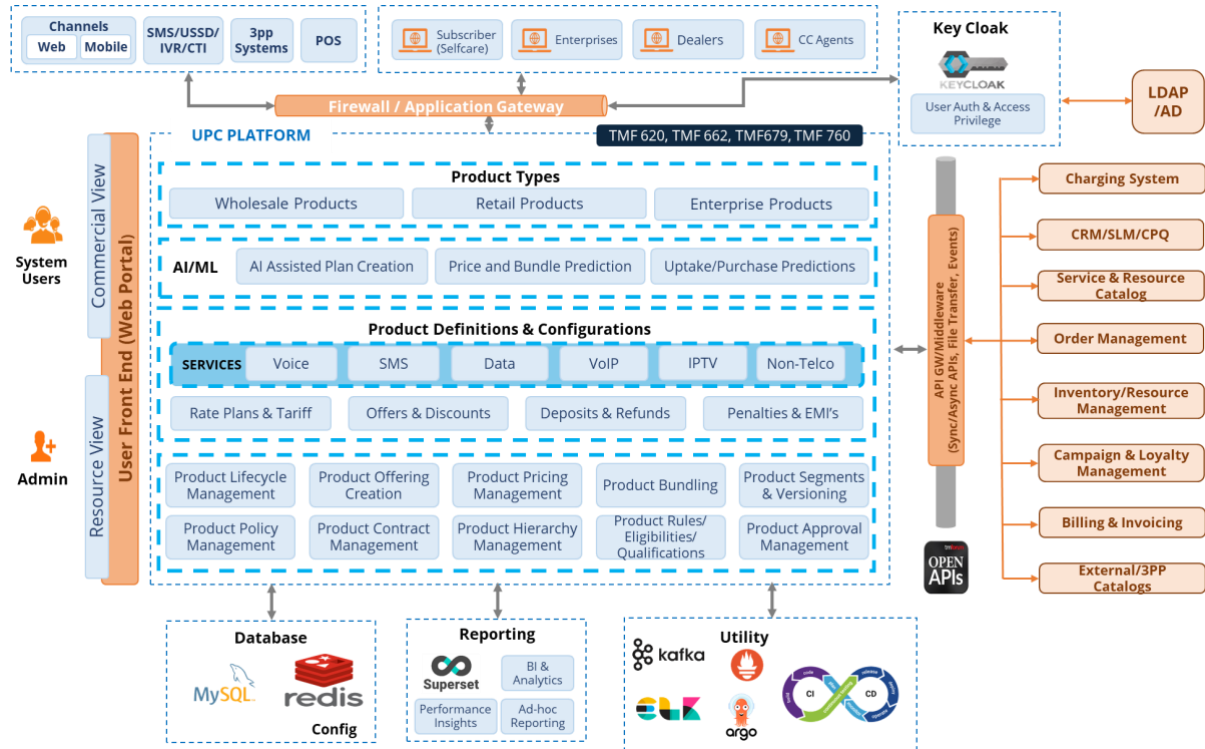
The TMF662 Entity Catalog API is engaged by various engagement management systems to support a range of different scenarios and use-cases, e.g.:

- Generalized Catalog for Arbitrary Entities where It provides a central catalog for managing entities that might not fit neatly into the predefined categories of Product, Service, or Resource catalog.
- Lifecycle Management of Catalog Elements that supports the full lifecycle management of these arbitrary catalog elements, including:
 - Creation: Creating new entity specifications and instances, often with default values and creation rules.
 - Retrieval: Looking up a single entity or a collection of entities based on various filter criteria.
 - Partial Update: Modifying parts of an entity, including updating associated rules.
 - Deletion: Removing entities from the catalog.

Sample Use cases supported by UPC through TMF 662 Entity Catalog API:

- Arbitrary Catalog Specifications Management
 - Defining & Managing Product Metadata Specifications
- Partner Catalog Management
 - Onboarding Digital Products
 - Managing life-cycle of Partner Products
- Product Bundling
 - Cross Partner Products Bundling
 - Pricing & Discounting Rules

3. Architectural View



The above diagram gives a functional view of Unified Product Catalog that exposes TMF 662 Entity Catalog Management API 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-UPC-TMF662-HTMLReport.html](#)