

TM Forum Open APIs

Conformance

Certification



Company Name:

6D Technologies

Product Name and Release Version:

Service Order Management – v12.0

TM Forum Open API Name and Release Version:

TMF640 – Service Activation Management v4.0.0

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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 Activation Management API

A key execution layer within SOM's Order-to-Activate flow, responsible for translating decomposed Resource-Facing and Customer-Facing Service instances into feasibility-checked, designed, reserved and ultimately activated services across the network and OSS/NMS estate.

TMF640 is exposed by SOM's Order Orchestrator (Run Time) module, working alongside the Service Order Management component (TMFC007), once a customer/product order has been decomposed and resources allocated. Its primary function is to check feasibility, design and reserve resources, activate and configure the resulting Service, and track long-running activation requests asynchronously through the Monitor resource.

2. Overview of Certified API

Service Activation Management API REST Specification

The TMF640 – Service Activation and Configuration API provides a standardised mechanism to create, retrieve, partially update and (for administrative purposes) delete a Service — Resource-Facing or Customer-Facing — and to drive it through its full activation lifecycle. It is the principal API of the "Order-to-Activate" family, sitting immediately downstream of Product and Service Ordering (TMF622/TMF641) and Service Qualification (TMF645) in the fulfilment chain.

The API defines a single Service resource supporting both the characteristic-specification pattern (name/value characteristics tied to a serviceSpecification) and the strongly-typed, schema-based pattern, and can represent either an atomic service or a ServiceBundle hierarchy via serviceRelationship. Long-running create, activate or configure requests are tracked asynchronously through the Monitor resource (HTTP 202), while synchronous implementations may respond 200/201 directly — both patterns are supported and were exercised during testing.

TMF640 supports synchronous CRUD-style operations alongside asynchronous event notifications — Service and Monitor create, attribute-value change, state change and delete events — and integrates across the order-to-activate chain with TMF622 (Product Order), TMF641 (Service Order), TMF638 (Service Inventory) and TMF639 (Resource Inventory), enabling straight-through orchestration from order capture to network-level service activation.

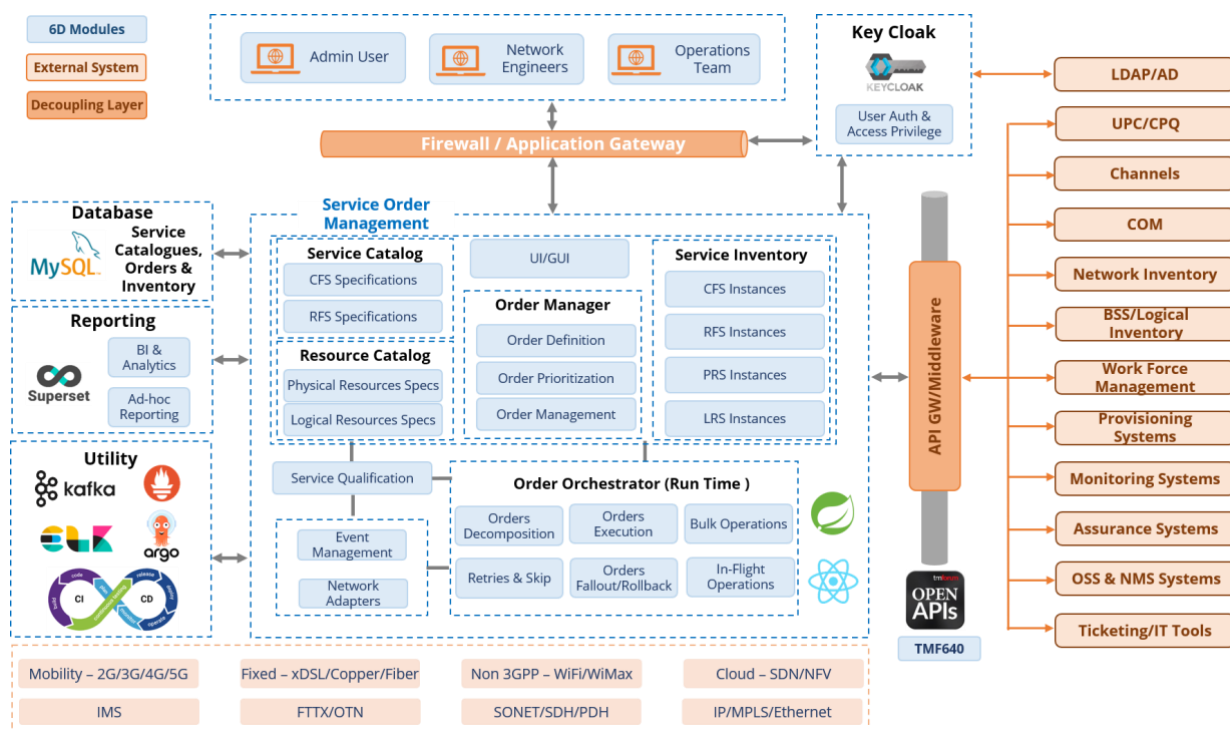
Key Functions:

- Create, retrieve, partially update, and administratively delete Service resources, including default values and creation rules.
- Check feasibility, design and reserve the resources required to deliver a service ahead of activation.

- Drive the full Service lifecycle — feasibilityChecked, designed, reserved, inactive, active and terminated — including suspend/restore and in-flight modification or cancellation.
- Track long-running activation and configuration requests asynchronously through the Monitor resource, including request/response headers and body.
- Raise event notifications for Service and Monitor creation, attribute-value change, state change and deletion — feeding downstream provisioning, assurance and inventory reconciliation.

By implementing TMF640, the solution ensures consistent, auditable activation and configuration of Resource- and Customer-Facing Services, reduces manual provisioning effort, and strengthens automation and interoperability across the BSS/OSS order-to-activate ecosystem.

3. Architectural View



The above diagram gives a functional view of Service Order Management that exposes the Service Activation and Configuration API (TMF640) — via the Order Orchestrator (Run Time) — to downstream Provisioning, Network Inventory, Assurance, Monitoring and OSS/NMS systems for service activation.

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-TMF640-HTMLReport.html](#)