



TM Forum Open APIs Conformance Certification

Company Name:

6D Technologies

TM Forum Open API Name:

TMF921 - Intent Management API

TM Forum Open API Release Version:

5.0.0

Date: 17/06/2026

1. What Product or Solution does your API support?

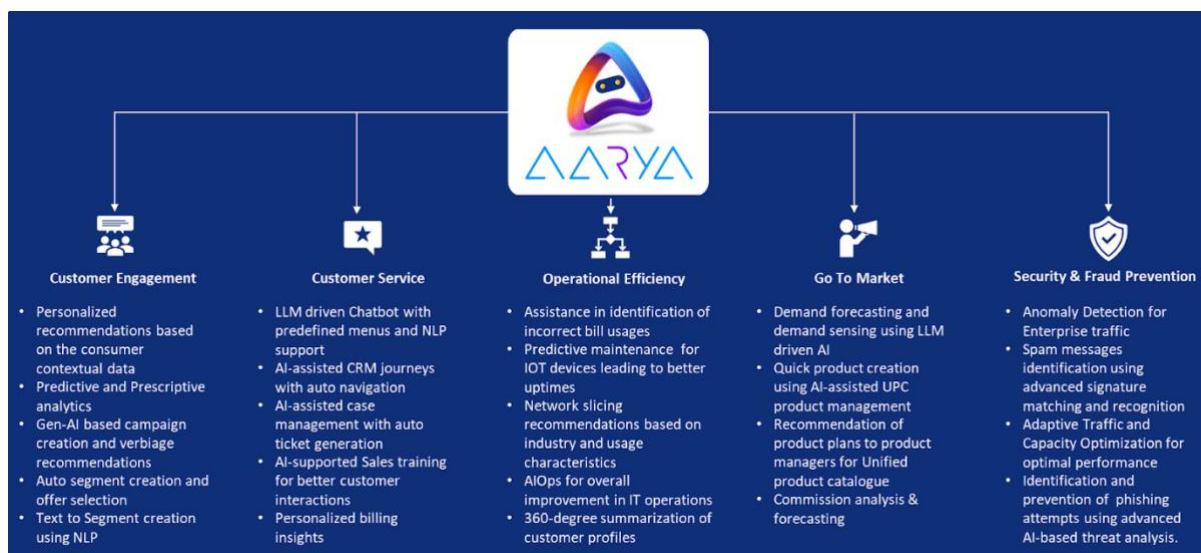
The **6D AI Fabric AARYA** is an enterprise-grade, AI-powered digital intelligence layer designed to transform user experiences, optimize operational processes, and accelerate business outcomes across the telecom and digital service ecosystem. It is domain-agnostic—equally capable of addressing **Customer Engagement, Customer Service, Operational Efficiency, Go To Market, Security & Fraud Prevention** use cases through contextual intelligence and adaptive automation.

At its core, **AI Platform** integrates state-of-the-art **Large Language Models (LLMs)** and **Natural Language Processing (NLP)** to deliver human-like conversational interfaces, predictive analytics, and prescriptive decision support. Whether engaging with customers through digital touchpoints, guiding field technicians in service activation, or correlating assurance events, the platform provides a unified intelligence foundation that learns, reasons, and acts across functions.

The platform's modular architecture embeds seamlessly within existing ecosystems—web and mobile portals, CRM, OSS/BSS systems, social channels, and data lakes—enabling real-time, context-aware interactions. Its **intelligent orchestration layer** dynamically interprets user or system intents through a **Retrieval-Augmented Generation (RAG)** pipeline that blends structured data (RDBMS, data warehouses) with unstructured enterprise knowledge (Vector DB, document repositories) to ground responses in accurate, domain-specific context.

A **locally hosted LLaMA engine** ensures sensitive data and operational insights remain secure within the corporate perimeter, while optional **GPT-based integration** augments generative reasoning for open-ended, cross-domain scenarios. Comprehensive **access control, role-based security**, and **audit trails** guarantee adherence to enterprise governance and regulatory frameworks.

Designed for measurable impact across the telecom value chain, **AI Platform** drives:



Its predictive analytics layer delivers forward-looking insights—forecasting demand, identifying churn or fault patterns, and recommending preventive or upsell actions. Self-learning modules continuously refine response accuracy and operational efficiency, while configuration consoles enable rapid adaptation to industry-specific or enterprise-specific requirements.

Built on **TM Forum Open APIs, AI & Data Frameworks**, and the **Open Digital Architecture (ODA)**, the **AI Platform** is fully standards-aligned for interoperability and scalability. It supports **multi-domain orchestration**, **cross-system data exchange**, and **future-proof extensibility**—enabling CSPs, DSPs, and enterprises alike to evolve from rule-based automation to intent-driven operations.

Backed by 6D's team of data scientists, cloud architects, and MLOps specialists, the **AI Platform** provides secure, compliant, and continuously evolving AI capabilities. From proof-of-concept to enterprise rollout, 6D ensures full-lifecycle enablement—allowing organizations to harness AI responsibly to enhance customer experience, assure service quality, and achieve sustained operational excellence.

2. Overview of Certified API

The **Intent Management API (TMF921)** is designed to standardize the expression, negotiation, and fulfilment of *intents* between a customer, system, or application and a service provider. Instead of defining “how” a service should be delivered, the API captures “what” outcome the requester wants to achieve — enabling **autonomous, closed-loop operations** aligned with business goals.

This supports the following:

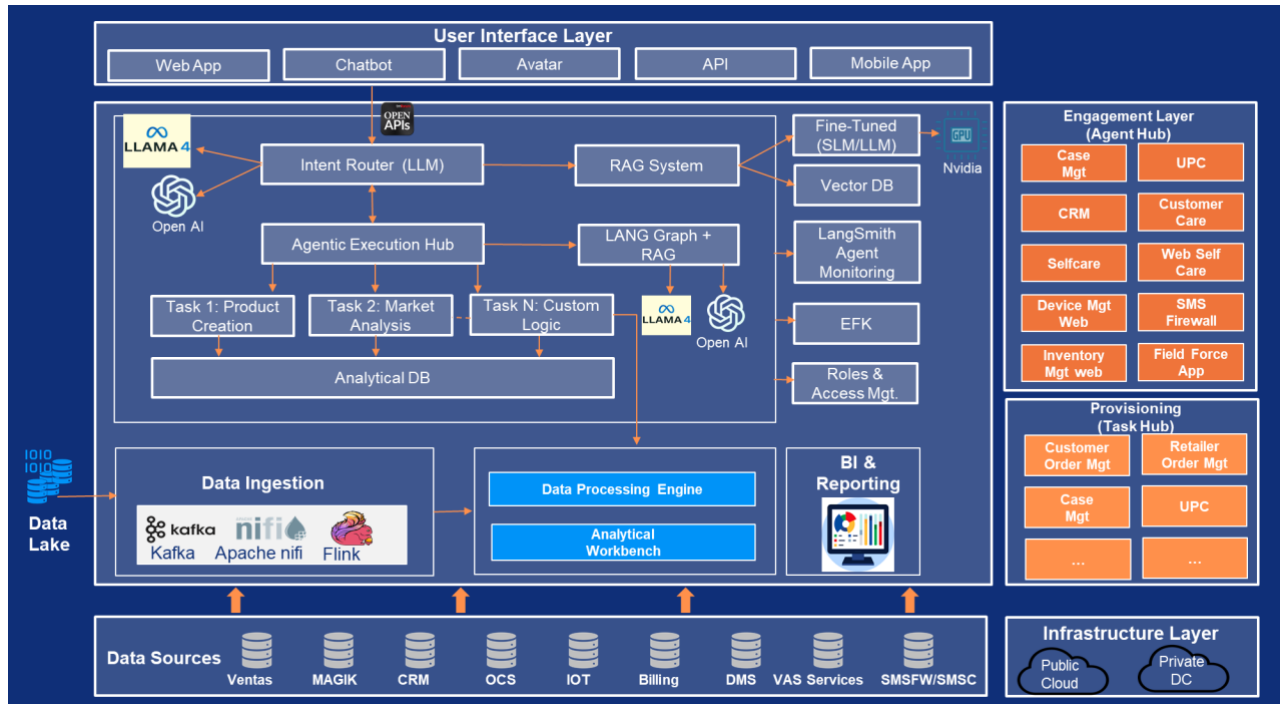
- **Intent Lifecycle Management** – Create, retrieve, update, and delete Intents, capturing desired outcomes and their target states.
- **Intent Report Management** – Generate and manage reports to track progress, outcomes, and performance against the original intent.
- **Negotiation and Fulfilment** – Support negotiation between intent provider and consumer for feasibility, constraints, and policy compliance.
- **Autonomous Decision-Making** – Enable systems to translate high-level intents into low-level actions across OSS/BSS and network layers.
- **Event Notifications** – Deliver state change notifications (accepted, in-progress, fulfilled, failed) and operational insights for each intent.

Sample Use Cases Supported through TMF921 Intent Management API

- **Customer Service Quality Intent** – A customer specifies, “Ensure my enterprise VPN latency stays below 10 ms,” and the system autonomously adjusts network parameters to maintain compliance.
- **Network Slice Optimization** – An operator defines an intent such as “Guarantee 99.99% availability for AR/VR traffic,” which triggers resource orchestration and dynamic assurance.
- **Energy Efficiency Intent** – A sustainability module declares, “Optimize network energy usage by 15%,” and the system reconfigures resource allocation accordingly.
- **Customer Experience Intent** – A CRM defines, “Maintain customer satisfaction score above 90%,” driving proactive service recovery workflows through AI-based predictions.

- **Closed-loop Fault Resolution** – The operations platform submits an intent like “Restore service within 5 minutes of any outage,” automatically invoking assurance and remediation processes.

3. Architectural View



The above diagram gives a functional view of 6D AI Fabric AARYA that exposes Intent Management API (TMF921) to external services.

Click here to view the test results: [6D-TMF921-HTMLReport.html](#)

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-TMF921-HTMLReport.html](#)