

TM Forum Open APIs

Conformance Certification



Company Name:

VC4

Product Name and Release Version:

VC4 Service2Create (S2C)

TM Forum Open API Name and Release Version:

TMF639 – Resource Inventory Management v4.0.0

Date: 13/07/2026

1. What Product or Solution does your API support?

VC4 Service2Create (S2C) is a cloud-native, low-code / no-code OSS platform that gives operators one consolidated environment for network planning, inventory, asset and workflow management.

Built as a multi-user, web-based suite, S2C spans every layer of fixed, mobile and transport technology — including Fiber/FTTx & GPON, WDM/OTN, MPLS/IP, SDN/SD-WAN, 5G/4G/3G/2G RAN & Core, Microwave, Ethernet and xDSL — so engineers, planners, NOC teams and business users all work from a single source of truth.

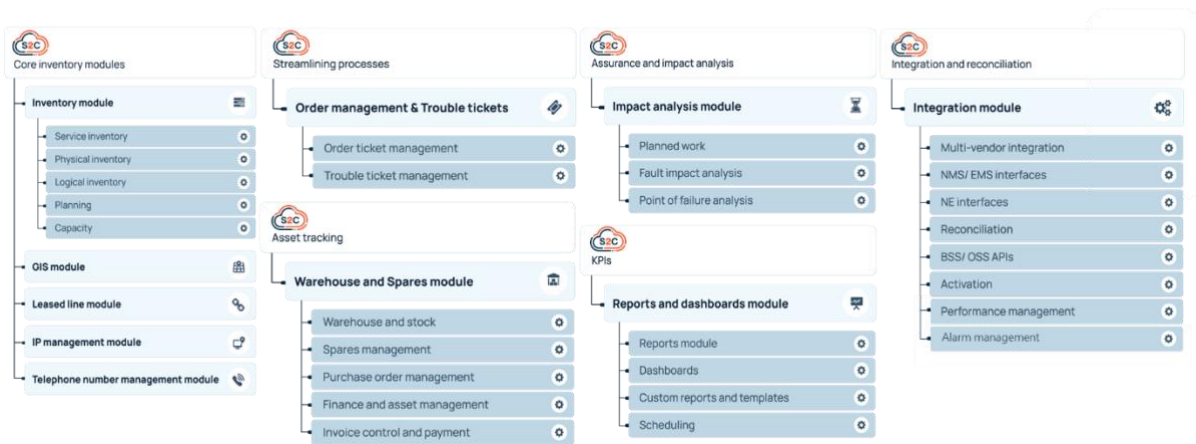
Powered by its open, vendor-agnostic data model and more than 20 years of experience including Tier-1 and Tier-2 references worldwide, S2C ships with an extensive set of off-the-shelf functions — network auto-discovery & reconciliation, GIS/OSP, automatic trail engineering, capacity & SPOF analysis, warehouse/spares, and an embedded workflow + trouble-ticket engine — reducing custom-code effort and long-term OPEX.

The TMF639 Resource Inventory Management API certified here exposes the S2C inventory as a standards-based Northbound Interface. Within S2C, the network is held as a richly interconnected model spanning both physical assets — sites, racks, nodes, shelves, cards, ports and distribution frames — and logical constructs such as circuits and internal ports, together with the containment, termination and layering relationships that bind them. TMF639 presents this heterogeneous model through a single, normalised resource abstraction: each inventory item, regardless of technology or vendor, is published as a TMF639 Resource with a consistent set of states, characteristics and typed relationships. This shields consuming systems from the underlying technology-specific detail and gives them one uniform contract over the entire inventory.

Through this interface, external OSS/BSS, service assurance and partner systems can discover, retrieve and maintain physical and logical resource records in real time across their full lifecycle. Aligned with the TM Forum SID and Open API conventions, the API

lets CSPs slot the S2C platform into a modern Open Digital Architecture, whether delivered as SaaS, on-premise or hybrid.

Service@Create Modules



2. Overview of Certified API

The VC4 Service2Create implementation of TMF639 Resource Inventory Management provides a RESTful JSON interface. Access to the underlying inventory is authenticated through VC4's own Authentication IDP, using tokens issued via S2C's User Access Control (UAC) model, regardless of whether the implementation is hosted by VC4 or operated independently by the customer.

The API is organised around a single TMF639 Resource entity, exposed at the `/resource` collection endpoint. Every physical and logical inventory item is represented as a Resource and distinguished by its `@type` discriminator: **PhysicalContainer** (sites and racks), **PhysicalEquipment** (nodes, shelves, cards and their sub-components, physical ports, and DDF/ODF distribution frames), **PhysicalLink** (physical cables), and **LogicalResource** (logical circuits and internal ports). The certified operations apply uniformly across all of these subtypes.

1. Create a resource — `POST /resource`
2. Retrieve one resource — `GET /resource/{id}`
3. Retrieve many resources — `GET /resource` with filter parameters (`@type`, `resourceStatus`, `category`, and other attributes)
4. Update an existing resource — `PATCH /resource/{id}` (partial update of status, characteristics and relationships)
5. Delete a resource — `DELETE /resource/{id}` (with referential pre-checks to preserve inventory integrity)

These operations let external OSS/BSS and service assurance systems maintain an accurate, TM Forum-compliant view of the physical and logical network inventory across its full lifecycle.

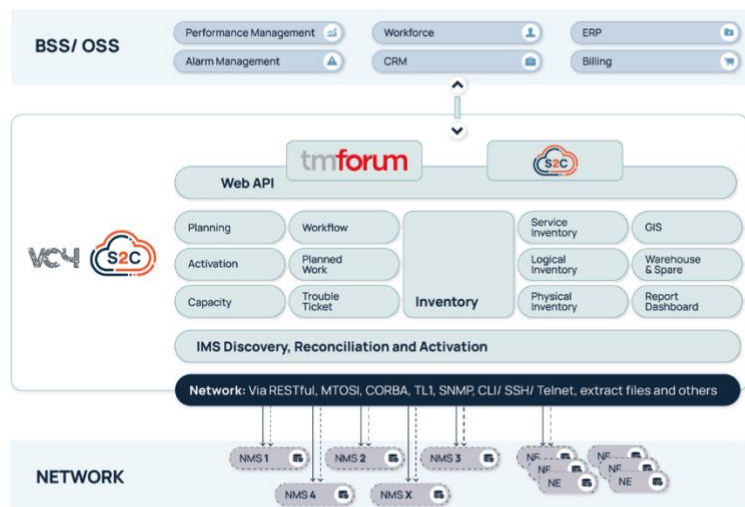
Base path: `/tmf-api/resourceInventoryManagement/v4` .
Conformance profile: TMF639 v4.0.0

3. Architectural View

The following diagram illustrates the architecture of the TMF639 Resource Inventory Management NBI implementation on VC4 Service2Create (S2C).



Service 2 Create
Plan, build and operate
with consolidated,
correlated data



4. Test Results

Click here to view the test results: [VC4-TMF639-v4.0.0-HTMLResults.html](#)