



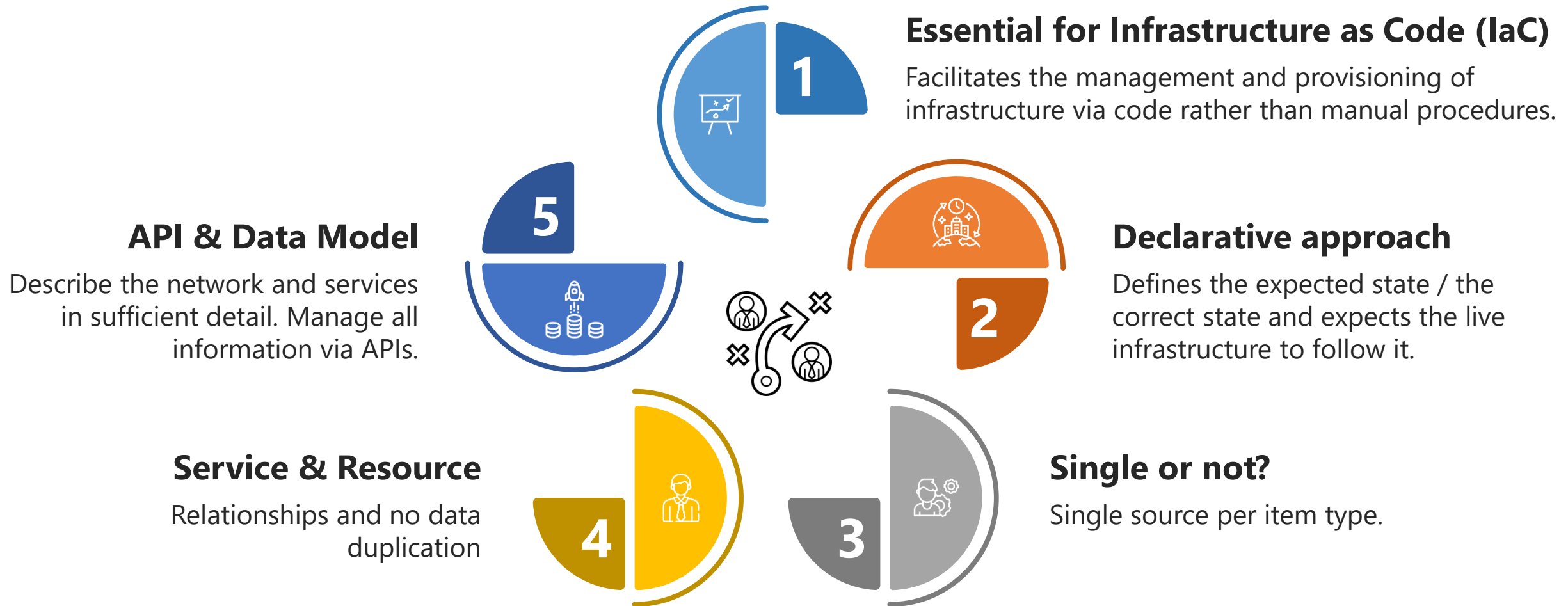
Maat

Source of Truth

FOSDEM 2025

1-2 Feb 2025

Want to automate? First decide on the Source of Truth (SoT)



Maat as SoT

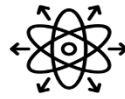


Maat is a microservice for open digital platforms that serves as a single source of truth for physical and logical resources and/or services.



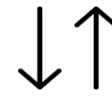
Open Standard-based APIs

- Full CRUD support for IaC out of the box
- TMF638 Service management REST API
- TMF639 Resource management REST API



Extensible Data Model

- JSON-based data model
- Validation based on data model schema file
- Extensions do not require changes in code or database
- Multiple data models can be defined in custom schemas



Events Hub

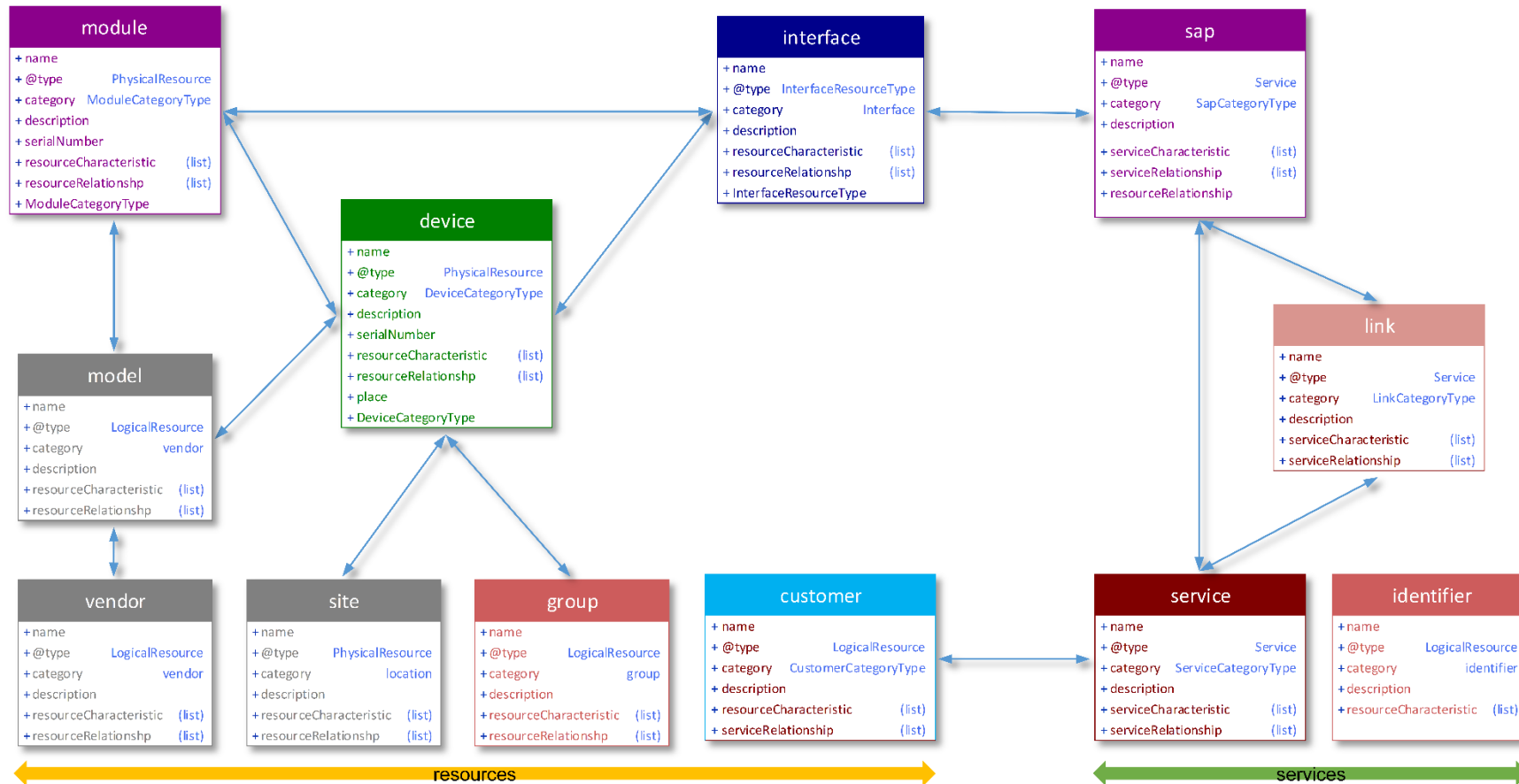
- External applications can register and listen to selected events
- Events are archived for historical purposes
- TMF standard API



Technology stack

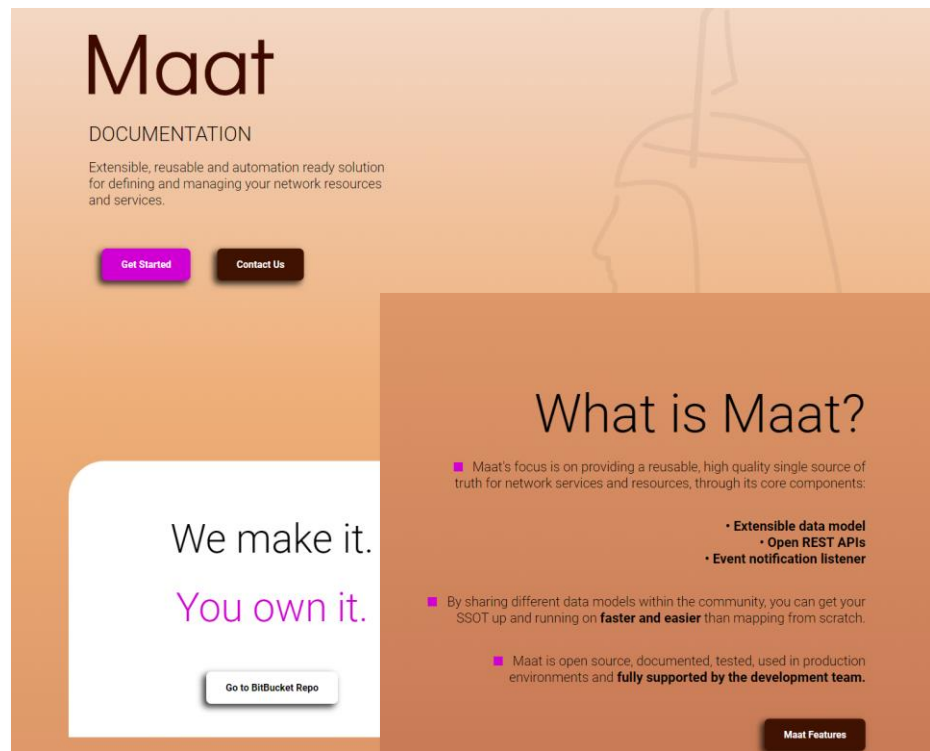
- NoSQL database (MongoDB)
- Spring Boot 3 library
- Docker
- Kubernetes / nmaas
- Keycloak
- AuthN & AuthZ

An example of data model



Website

<https://geant-netdev.gitlab-pages.pcss.pl/MaatDocs/>



Maat

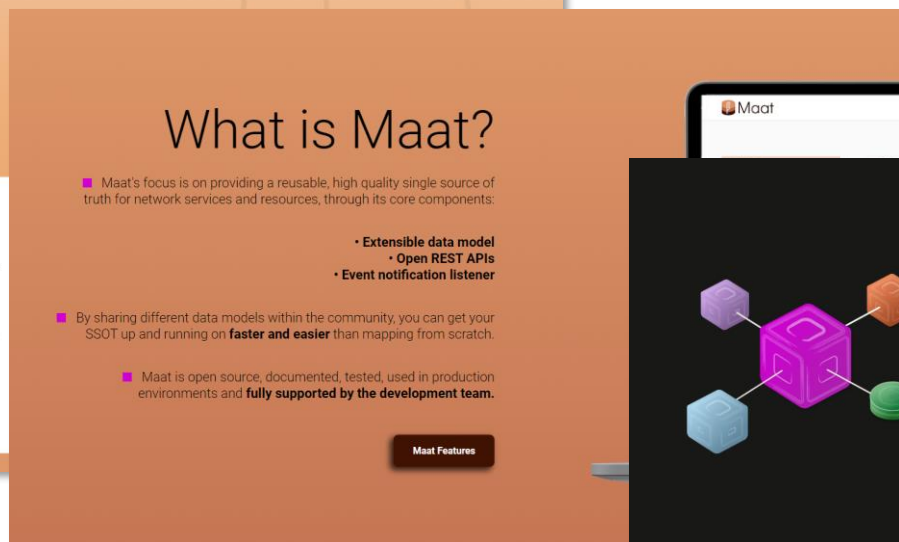
DOCUMENTATION

Extensible, reusable and automation ready solution for defining and managing your network resources and services.

[Get Started](#) [Contact Us](#)

We make it.
You own it.

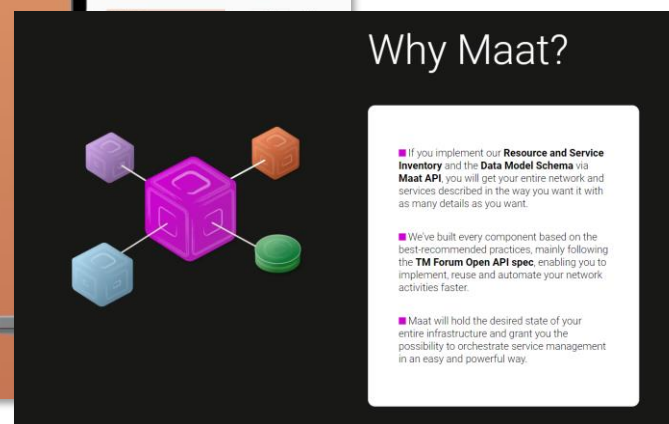
[Go to BitBucket Repo](#)



What is Maat?

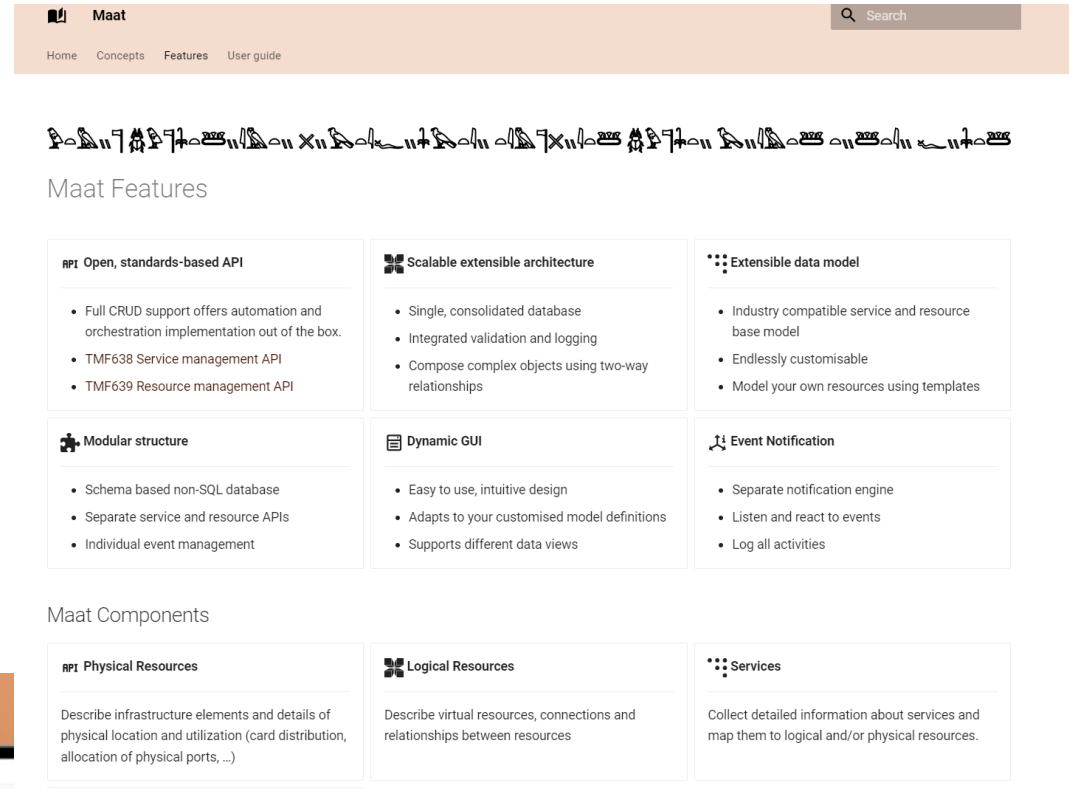
- Maat's focus is on providing a reusable, high quality single source of truth for network services and resources, through its core components:
 - Extensible data model
 - Open REST APIs
 - Event notification listener
- By sharing different data models within the community, you can get your SSOT up and running on **faster and easier** than mapping from scratch.
- Maat is open source, documented, tested, used in production environments and **fully supported by the development team.**

[Maat Features](#)



Why Maat?

- If you implement our **Resource and Service Inventory** and the **Data Model Schema** via **Maat API**, you will get your entire network and services described in the way you want it, with as many details as you want.
- We've built every component based on the best-recommended practices, mainly following the **TM Forum Open API spec**, enabling you to implement, reuse and automate your network activities faster.
- Maat will hold the desired state of your entire infrastructure and grant you the possibility to orchestrate service management in an easy and powerful way.



Maat

Home Concepts Features User guide

Maat Features

- API Open, standards-based API**
 - Full CRUD support offers automation and orchestration implementation out of the box.
 - TMF638 Service management API
 - TMF639 Resource management API
- Scalable extensible architecture**
 - Single, consolidated database
 - Integrated validation and logging
 - Compose complex objects using two-way relationships
- Extensible data model**
 - Industry compatible service and resource base model
 - Endlessly customisable
 - Model your own resources using templates
- Modular structure**
 - Schema based non-SQL database
 - Separate service and resource APIs
 - Individual event management
- Dynamic GUI**
 - Easy to use, intuitive design
 - Adapts to your customised model definitions
 - Supports different data views
- Event Notification**
 - Separate notification engine
 - Listen and react to events
 - Log all activities
- API Physical Resources**

Describe infrastructure elements and details of physical location and utilization (card distribution, allocation of physical ports, ...)
- Logical Resources**

Describe virtual resources, connections and relationships between resources
- Services**

Collect detailed information about services and map them to logical and/or physical resources.



Contact us

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www.geant.org



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