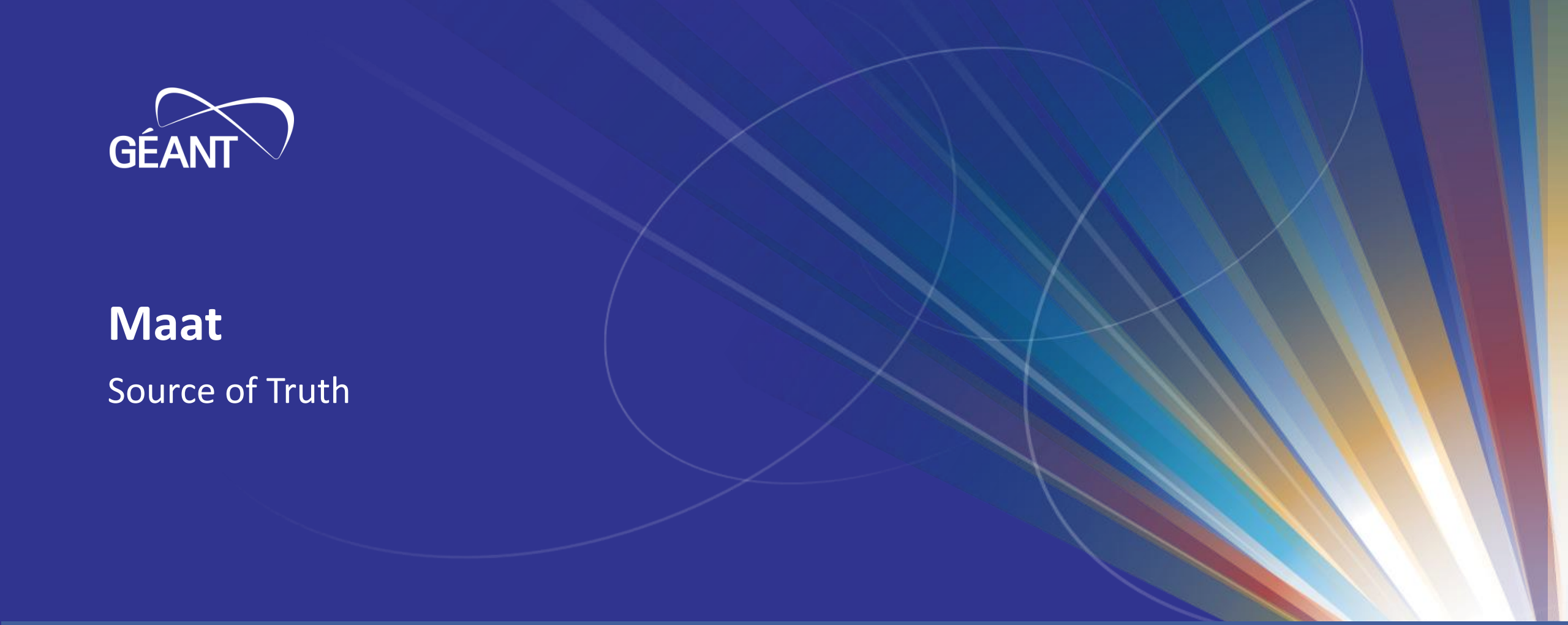


Maat

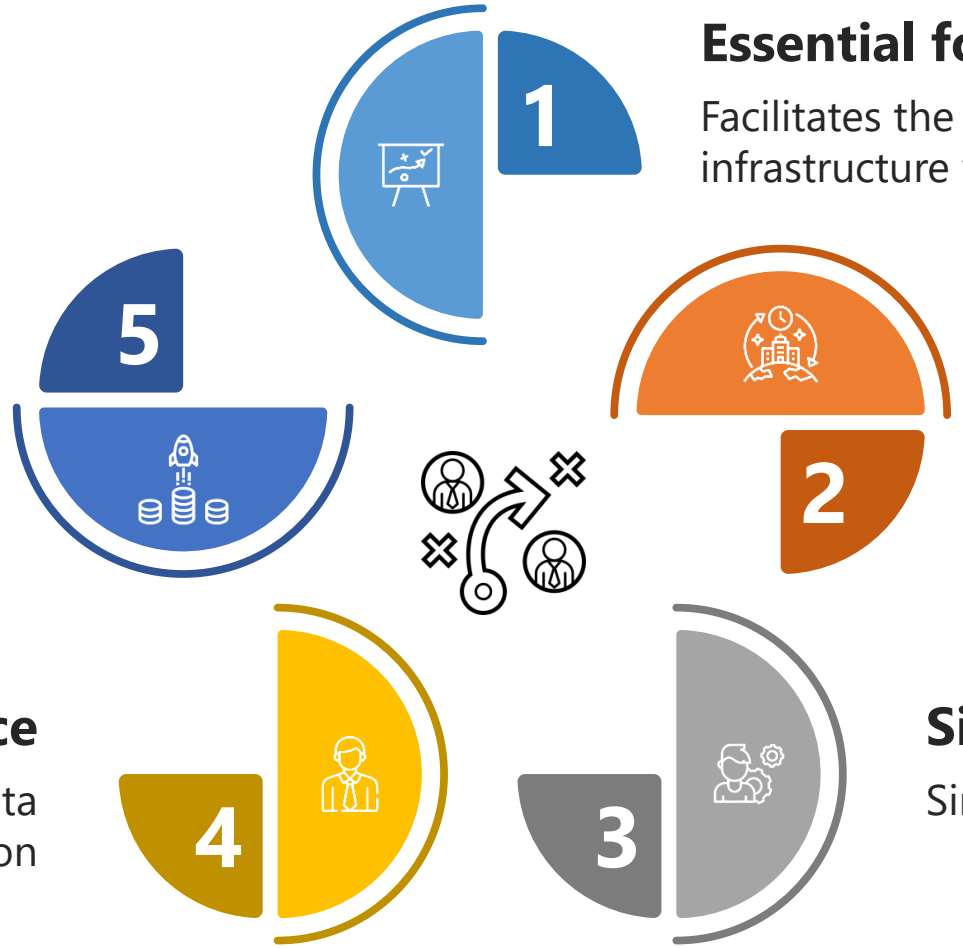
Source of Truth

FOSDEM 2025

1-2 Feb 2025

GN5-1

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



Essential for Infrastructure as Code (IaC)

Facilitates the management and provisioning of infrastructure via code rather than manual procedures.

Declarative approach

Defines the expected state / the correct state and expects the live infrastructure to follow it.

Single or not?

Single source per item type.

Service & Resource

Relationships and no data duplication

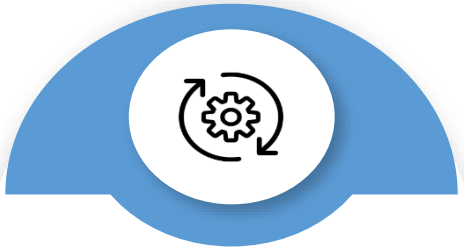
API & Data Model

Describe the network and services in sufficient detail. Manage all information via APIs.

Maat as SoT

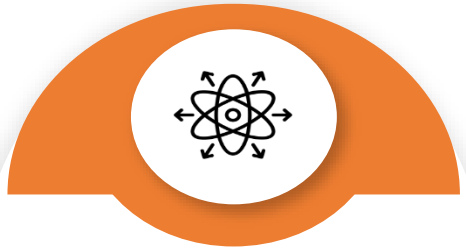
Maat

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



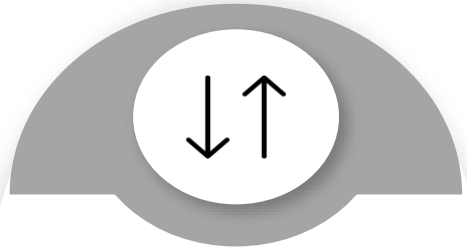
Open Standard-based APIs

- 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



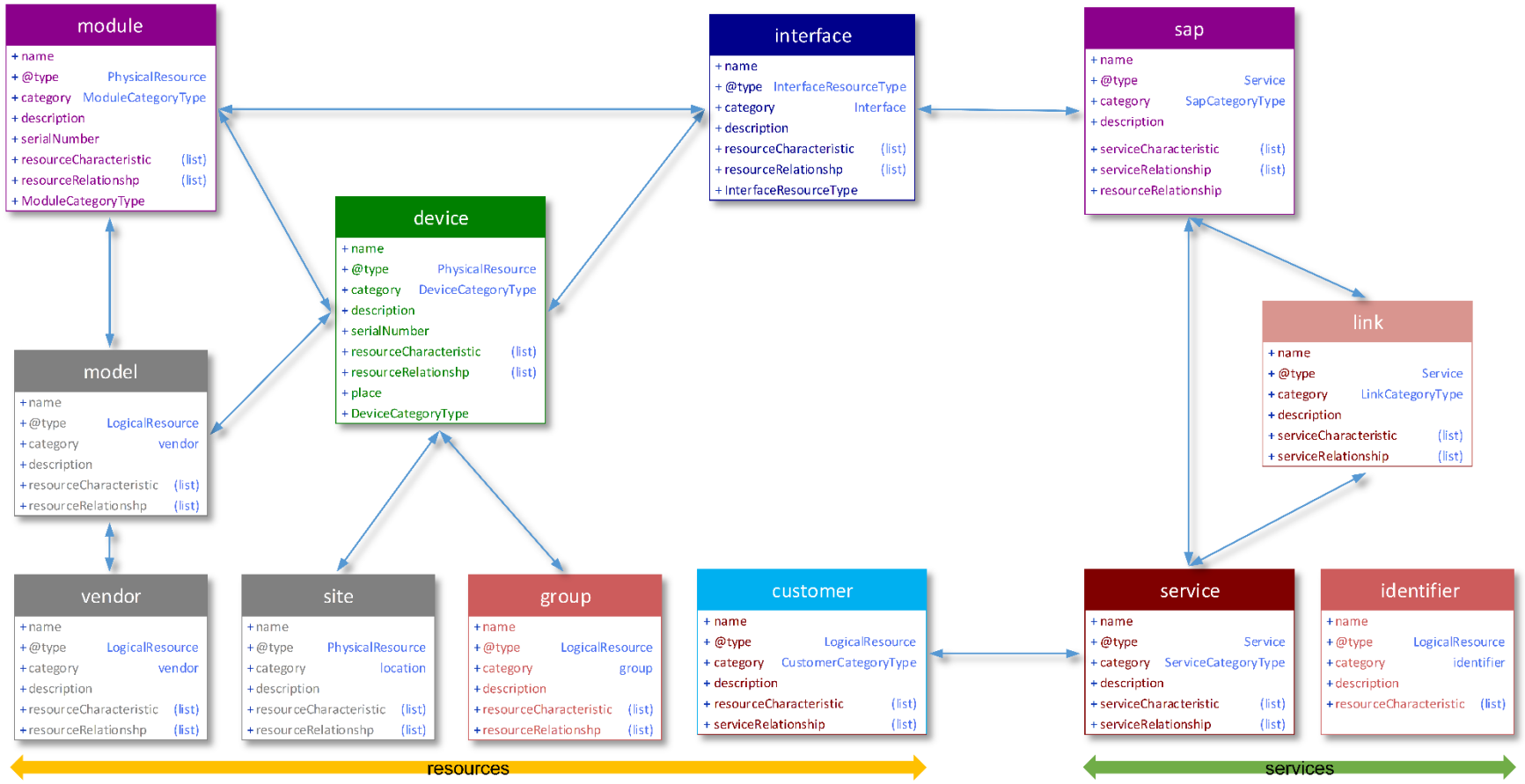
Events Hub

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

Technology stack

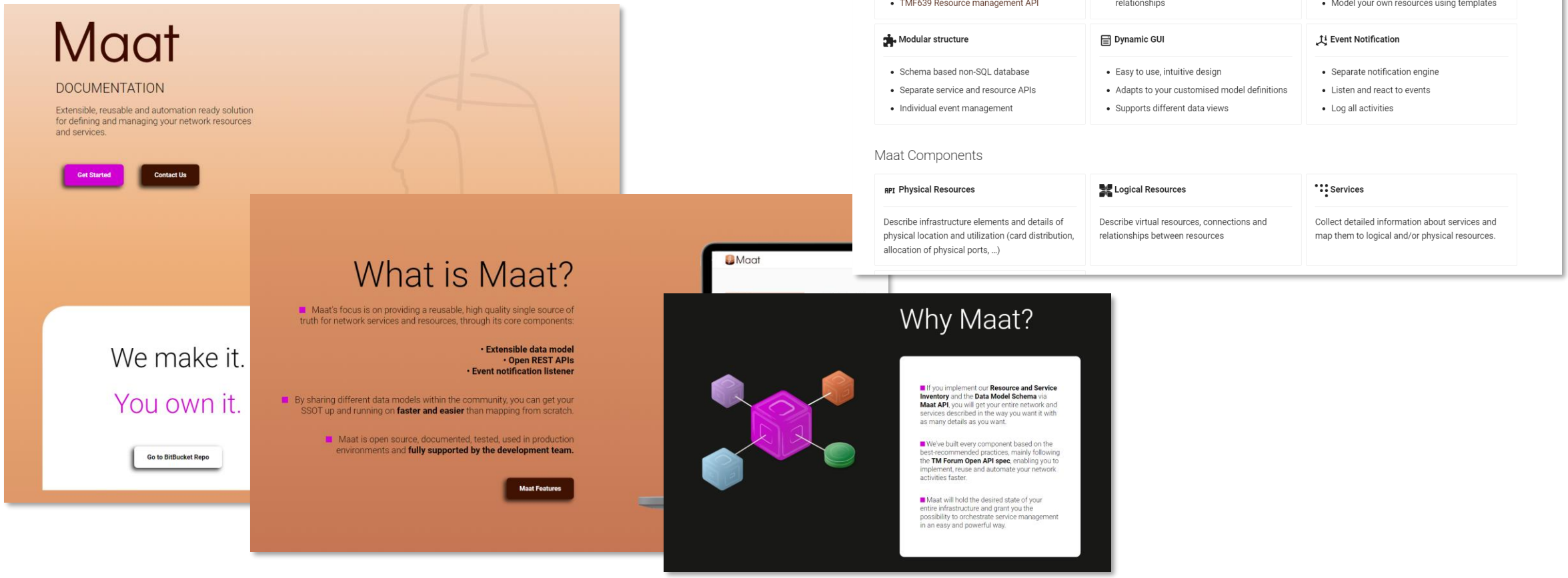
- NoSQL database (MongoDB)
- Spring Boot 3 library
- Docker
- Kubernetes / nmaas
- Keycloak
- AuthN & AuthZ

An example of data model



Website

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



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