



# Network eAcademy Architecture / Mapping

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GNA-G Network eAcademy Working Group


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Public (PU)

# Agenda

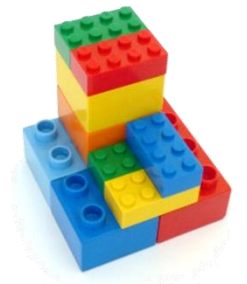
- Introduction to OAV Architecture
- Why TMForum ODA?
  - ODA Architecture
- Mapping process overview
- Activities published and under development
- NREN domain comparison

# Introduction to OAV Architecture

- **OAV** - Orchestration, Automation and Virtualisation
- NRENs use services that cross different networks  need a shared way to connect
- Mapping architecture helps:
  - align OAV efforts
  - find similarities
  - enable collaboration and interoperability
  - supports the transition from traditional work organisation to a model where services are automatically provisioned and orchestrated

## Why TMForum ODA?

- **Goal** to create flexible blueprint
  - many standards and architectures to choose from
- TM Forum Open Digital Architecture (ODA) as a reference model
  - supports combining **existing solutions** with new approaches
- Final architecture depends on each case (NREN)
- ODA  $\longrightarrow$  modular approach  $\longrightarrow$  building BLOCKS



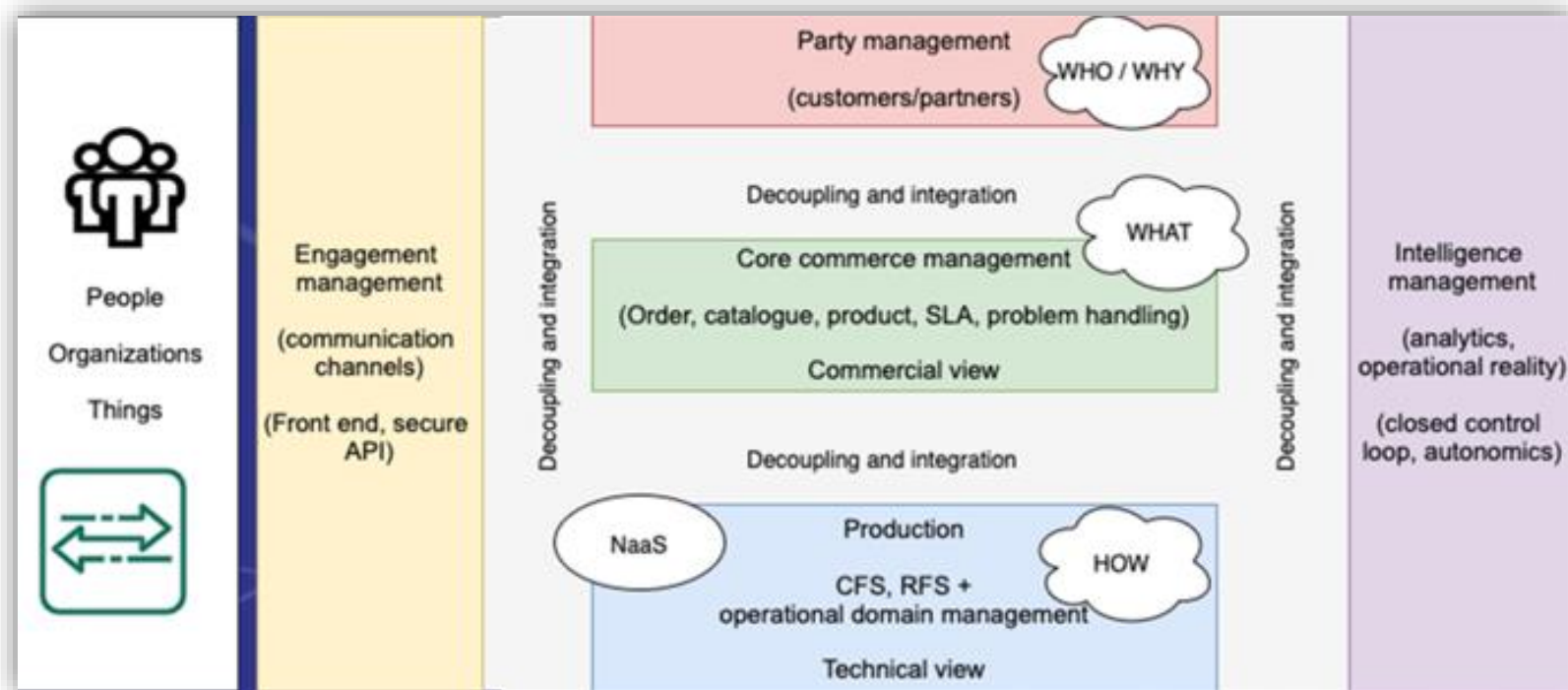
# ODA Architecture

- **Five domains:**

- Engagement management,
- Party management,
- Core commerce management,
- Production and
- Intelligence management



- Decoupling and integration layer



# Mapping process overview

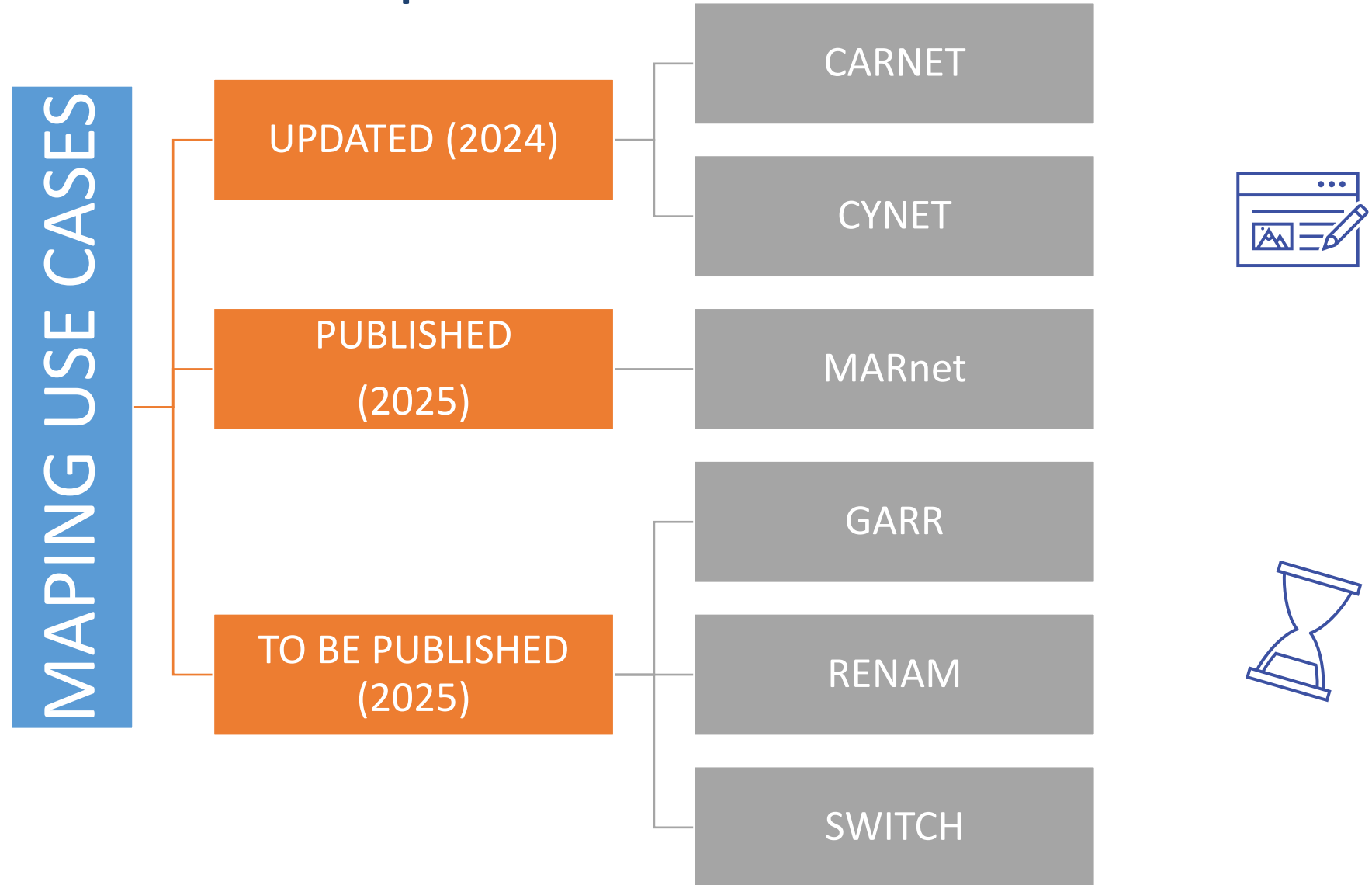
STEP 3:



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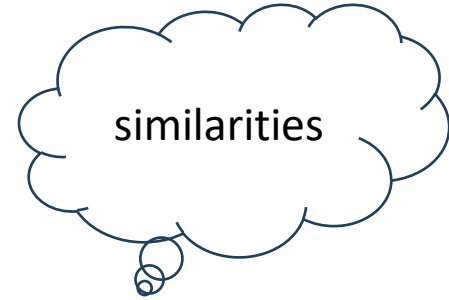
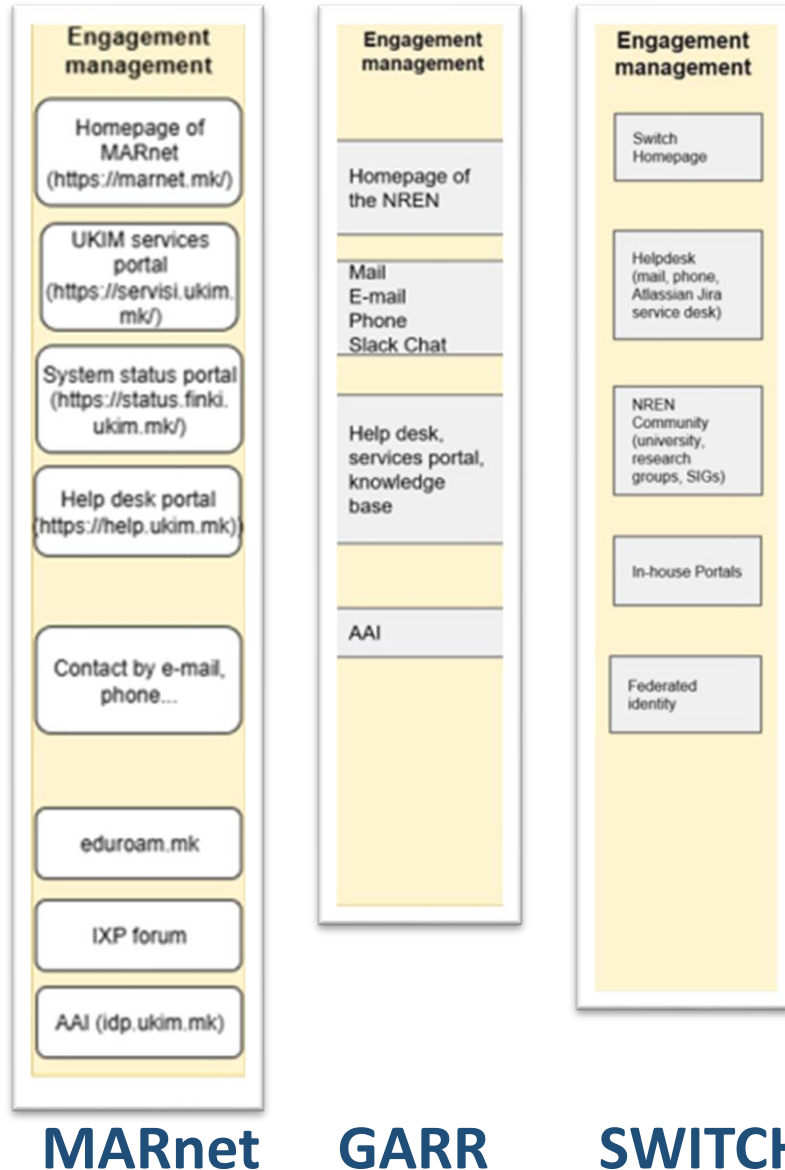
**CARNET OAV Architecture Analysis – Update**

## Activities published and under development



- <https://wiki.geant.org/display/NETDEV/Mapping+Use+Cases>

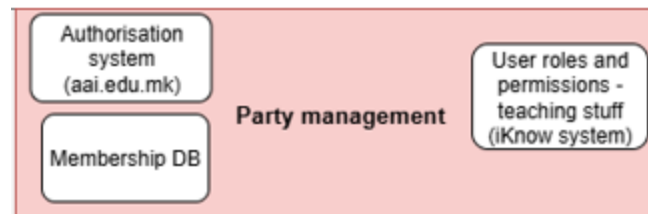
## Domain comparison - Engagement management



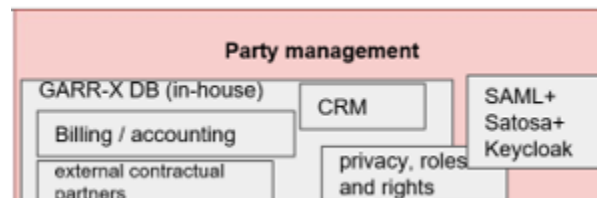
- multiple contact channels (email, phone, helpdesk portals)
- AAI/federated identity systems
- online portals for service information and interaction

## Domain comparison - Party management

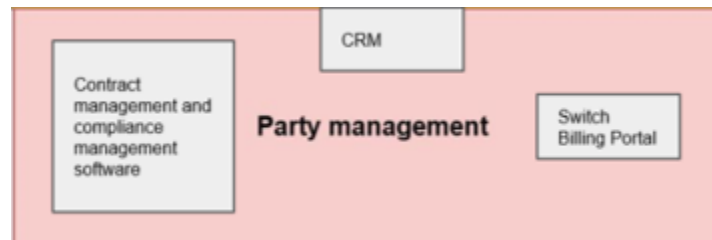
- manage identity and access via federated AAI systems
- use role-based access structures for users



**MARnet**



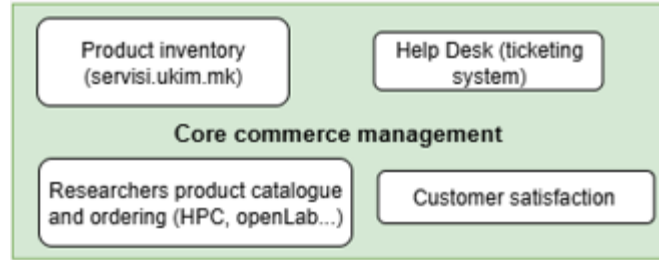
**GARR**



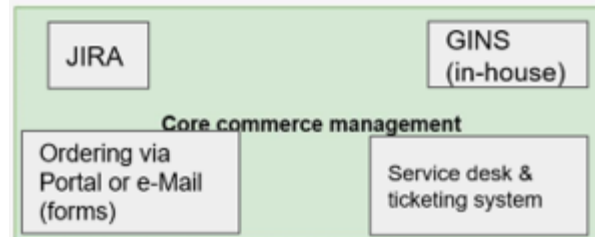
**SWITCH**

## Domain comparison - Core commerce management

- ticketing system
- product catalogues



**MARnet**



**GARR**

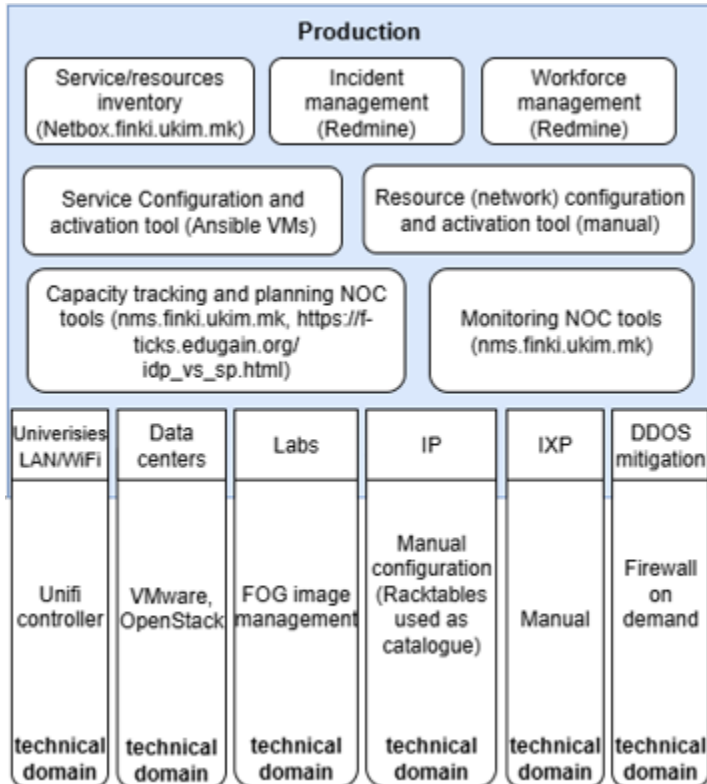


**SWITCH**

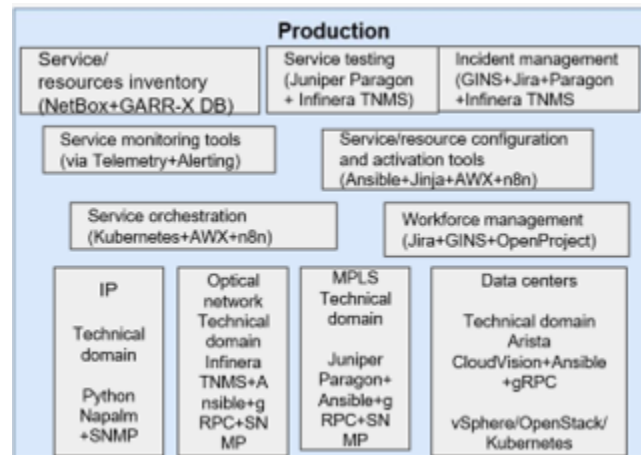
# Domain comparison - Production

- monitoring platforms (Grafana/Prometheus/LibreNMS )
- automation tools (Ansible)
- incident management and NOC processes

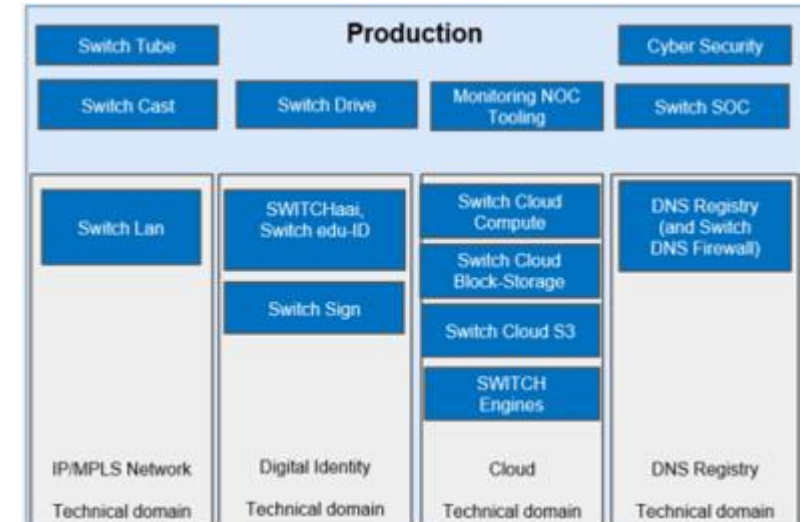
## MARnet



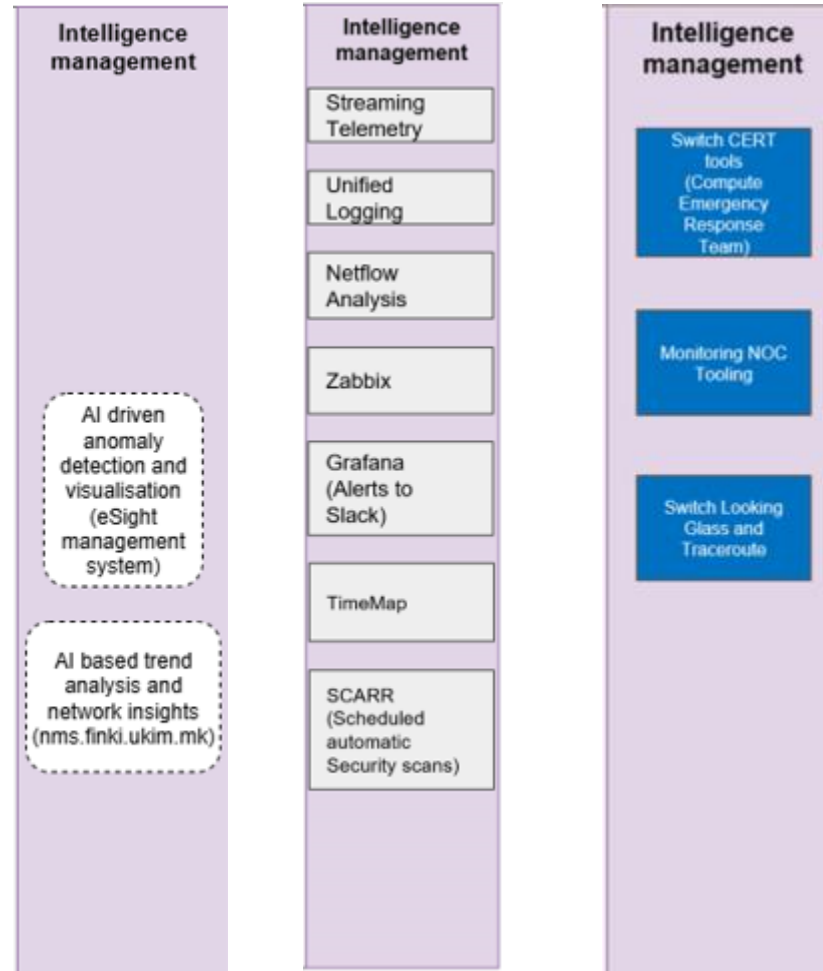
## GARR



## SWITCH



# Domain comparison - Intelligence management



**MARnet**

**GARR**

**SWITCH**

- traffic analysis and security monitoring
- monitoring dashboards (Grafana)



# Thank You

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[www.geant.org](http://www.geant.org)



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