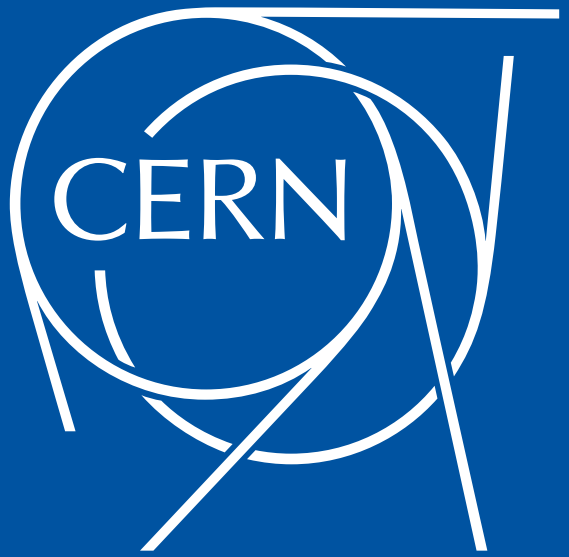

CERN

Inventory Management Automation for Network Device

From the component to the API

Clément PARSSEGNY

Introduction

Working principle

Current state

Conclusion

Introduction

Hardware details

Approximately :

- **50 000** km of optical fibre are used to connect the different sites.
- **300** routers
- **4000** switches
- **50** domains (GPN, ATLAS, ALICE, LHCb, TN...)

Working principle

Logical working

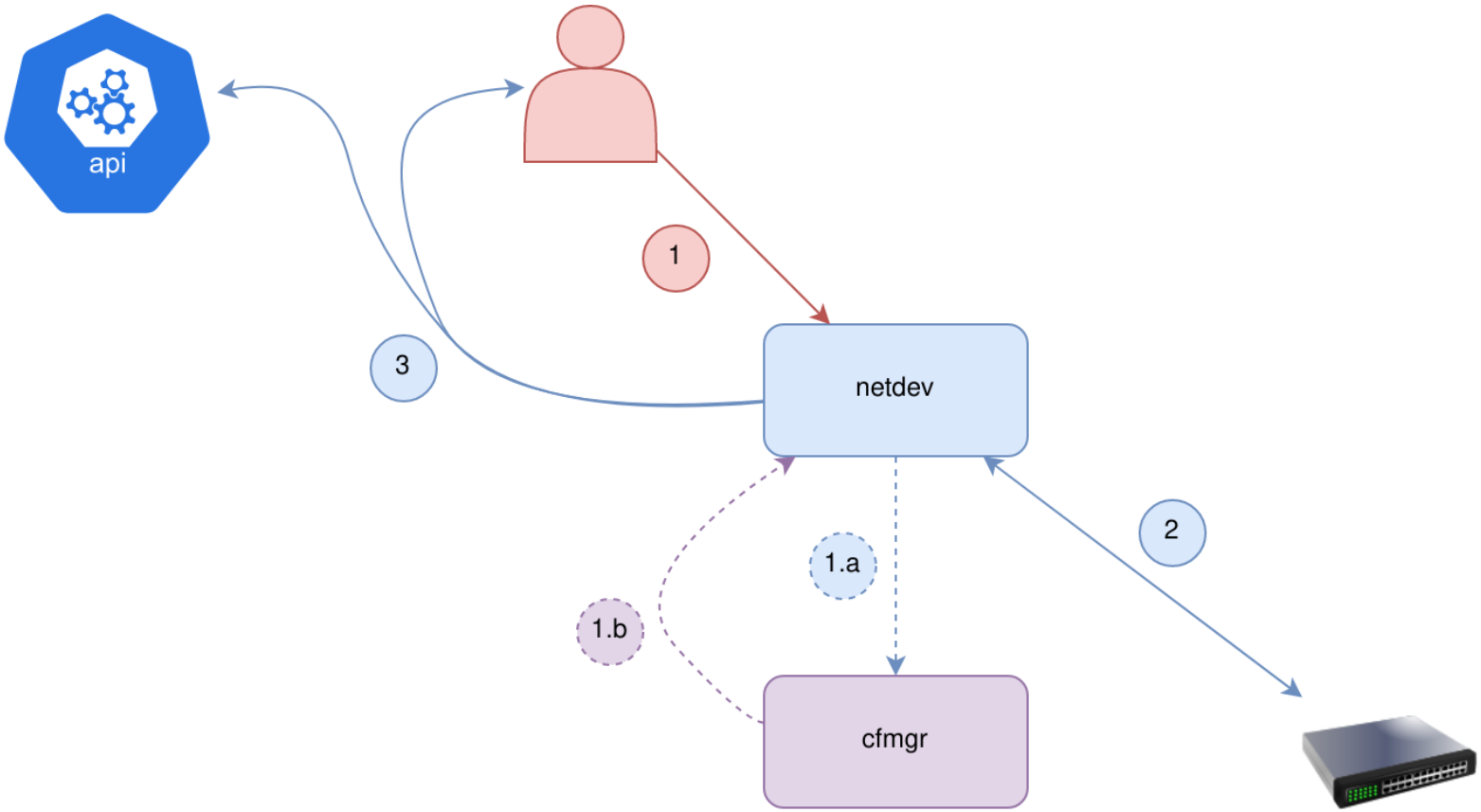
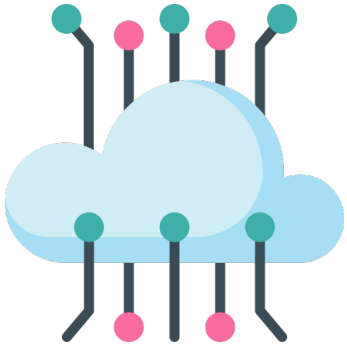


Figure: Update Inventory Principle

Employed technologies

Perl



SNMP

infor EAM

Current state

- Proof of concept : OK
- Production launching : Work in Progress

Conclusion

- CERN's network is **vast** and **heterogeneous**. Inventory management automation is mandatory.
- The main challenge is to make every part to communicate together.
- Opportunity to learn and participate in a real project.

Thank you !

Questions ? :D

Ressources

- `https://home.cern/science/computing/network`
- `https://cixp.net/`
- `https://comstat.cern.ch/comstat/` (works inside CERN network)

CERN