Workflow Orchestrator Community

Simone Spinelli

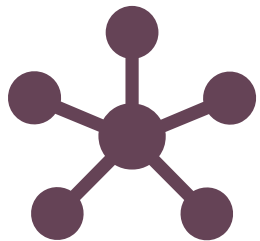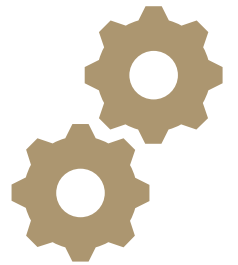Network Architect @GÉANT

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Used in production by several organizations: SURF, Esnet, GÉANT, HEAnet

Integrates with lots of tools:
- Automation engines: NSO, Ansible (LSO/AWX)
- Other tooling: Infoblox, LibreNMS, Kentik
- SoTs: Netbox, IMS
- AAA: Geant AAI Service
- CRMs: MS Dynamics

Open source under Apache2
- A framework to model your constructs
- A workflow engine to execute your processes

- Setup under the Commons Conservancy

- All code is licensed under Apache 2.0

- All Intellectual Property remains at each member company

- Membership levels:
  - Partner
  - Graduate
  - Sandbox

- Mainly NREN's and networking use case but other use-cases as well
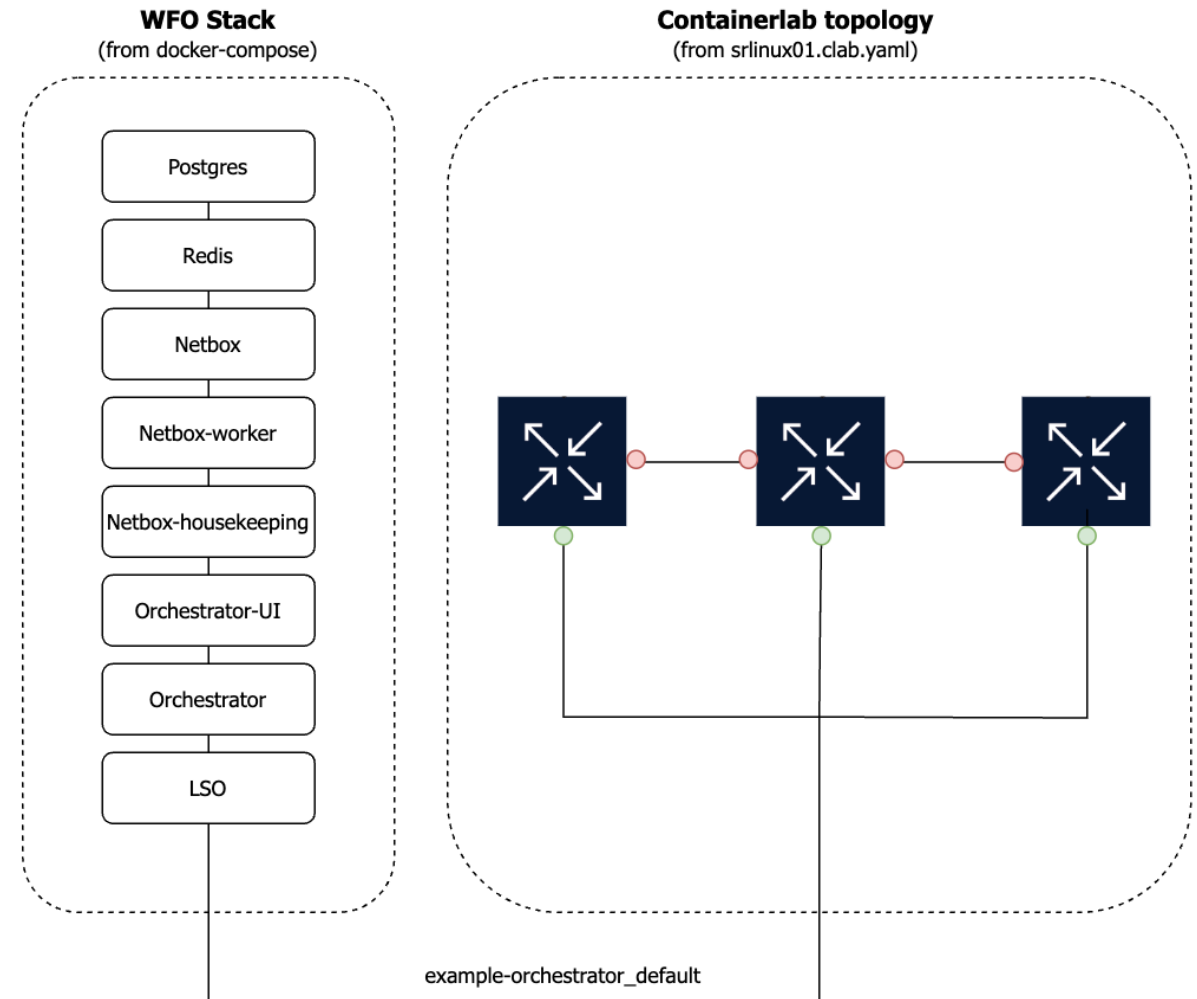
https://workfloworchestrator.org/

We have been busy…

- #geant-wfo slack channel:
  - 71 members from 19 different orgs
  - …and growing ☺
- New website with updated docs and workshop
- FOSDEM24 – presentation in Network Track
- Autocon1 @Amsterdam - workshop
- TNC24:
  - 3 presentations
  - Workshops in the community area
- Autocon2 @Denver – workshop [Nov24]
- Focus is on documentation and training
- Stickers, lots of stickers!

- Take a look at the demo:
- Try it yourself! Run the workshop
  - Based on Docker and Containerlab
  - Gives you something to play with
  - Uses LSO + Ansible to push config
  - Netbox as Source Of Truth
- You will be able to:
  - Deploy nodes and links
  - Explore the code
  - Expand it and try other things

WFO Stack
(from docker-compose)

- Postgres
- Redis
- Netbox
- Netbox-worker
- Netbox-housekeeping
- Orchestrator-UI
- Orchestrator
- LSO

Containerlab topology
(from srlinux01.clab.yaml)

example-orchestrator_default

- Every organization in the program can onboard others:
  - Workshops – ad-hoc technical sessions
  - Regular calls
  - Support via Slack
- Domain models are public
  - For WFO
  - For NSO
- GÉANT code is all public
  - WFO models and workflows
  - Ansible plays and roles

- All kind of inputs/requests are welcome!
- We are present in most of the community events
- There are side-projects that are growing around WFO
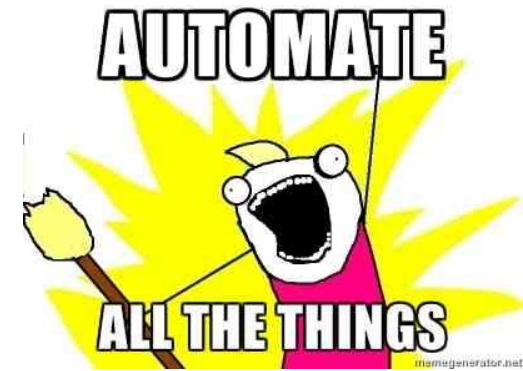
- Opensource foundation - Workflow Orchestrator Programme:
  - https://workfloworchestrator.org

- Demo Orchestrator - Containing our best practices:
  - https://github.com/workfloworchestrator/example-orchestrator
  - https://demo.workfloworchestrator.org
  - https://netbox.demo.workfloworchestrator.org

- Examples of other NREN modelling:
  - GNA-G Network Automation Working Group: https://github.com/gna-g/NAWG
  - GEANT: https://gitlab.software.geant.org/goat/gap

- Orchestrator-core documentation:
  - https://workfloworchestrator.org/orchestrator-core

Thanks!

Questions?