

**nog.fi workshop/hackathon**

**Automation with legacy gear**

# Workshop/Hackathon goal

- have fun
- keep it simple, minimize 'technical difficulties'
  - more complex workshops to follow if this works (telemetry etc)
- learn network automation with python
  - inclusive, no prerequisites with python
- get familiar with open source tools
  - paramiko/netmiko
  - ttp/textfsm
  - napalm
  - netbox
  - nornir

# Requirements & preparation

- build a simple lab setup with devices with different vendors/OSs (containers/vms/physical devices)
  - participants are encouraged to bring their own network gear to the hackathon
    - some specification for the devices like mgmt connection via 10/100/1000BASE-T ethernet, low power consumption etc
    - I'll buy a beer for the person who brings in the most legacy device
- participants are connected via wifi to the hackathon network, i.e direct access to the devices from their laptops
- if there's time, add netbox/logging/monitoring for the devices
- example answers for the lab exercises in github

## Requirements for participants

- laptop with python installed, <https://www.python.org/downloads/>
- experience with networking
- no prior python experience needed

# Agenda

- presentation about Python tools for automation with legacy, CLI based, network devices
  - netmiko, napalm, nornir, ansible etc
- Form groups of 2-3 persons
  - at least one person with previous Python experience per group
- work on a list of tasks
- possible competition between teams

## Example tasks

- automation with Netmiko and Napalm
- data collection
  - sw/hw version
  - serial numbers
  - lldp
  - config backup
- configuration
  - change interface description/status

## Example tasks

- write textfsm and TTP templates
  - example outputs with answers
  - select some random command from vendor x OS and parse the output
- change logging configuration
- rotate secrets
  - change credentials/SNMP config

## Competition between the teams

- simple automation task and the winner is who can make the changes fastest with least write operations



# What is needed

- volunteers
- sponsors
  - venue & beer
- participants :)