#### How to s/sysadmin/netadmin/g

Tijn "Cybertinus" Buijs NLNOG day 2018 7 September 2018

# Who am I? (1/2)

Tijn Buijs



- 32 years old
- Linux consultant at Snow B.V. since October 2017
- System administrator Professionally since August 2011
- Certificates: RHCE, Ansible, CCNA

# Who am I? (2/2)

• Cybertinus



- Nerd
- Board member at Coloclue Since June 2014
- Member of network committee Coloclue
  Since mid 2015
- IT as a hobby Since forever

## Why the switch?

- Time for something new
- Networking is interesting
- Network devices are logical
- Both human and technical interaction
- (Further away from the end user)

### How to make the switch?

Gain knowledge

- Help from your employer / switch employer
- Look at job offerings
- Use your (human) network

### Hands on experience

- Start as sysadmin
- Let them know you want to be netadmin
- Slowly switch to netadmin work
- Become a volunteer somewhere

# **Gaining knowledge**

- · DO IT
- Play with it
- Practice with it
- Break stuff
- Fix stuff
- DO IT

# Doing it

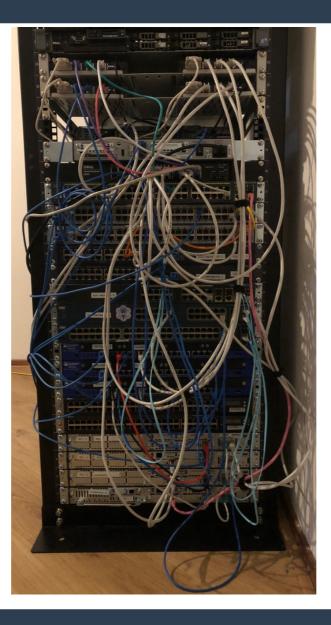
- Use a simulator
  - EveNG
  - GNS3
- Get hardware
  - eBay
  - Marktplaats
  - Friends or colleagues

## I got hardware



## **Combine everything Routers and switches Firewalls** L2 and L3 Brands and types Cable types **OSses**

### I also got cables



## Why hardware?

- Feels more real
- You learn L1 stuff
- No weird bugs in simulations
- No temptation for illegal activities
- (Saves on heating costs for your house)

### **Downsides of hardware**

- Most expensive option
- Noise and heat
- Power consumption
- Takes space
- Can break
- Somewhat outdated hardware

### **Other peoples hardware**

- Find other peoples network and breakplay with that
- More modern stuff
- Coloclue
- Looked a bit at Fusix Networks

## Training

#### • Vendor specific training:

- Cisco: CCNA, CCNP and CCIE
- Juniper: JNCIA, JNCIS, JNCIP and JNCIE
- Others...

#### • Open source: Cumulus



#### Costs

#### • Certification:

- Entry level: ~150 EUR/exam
- Mid level: 200-400 EUR/exam
- Top level: >1000 EUR/exam

#### • Hardware:

- Starts at 75 EUR per device, no limit
- 500 EUR rack
- 450 EUR cabling



Takes 2 or 3 years to switch

Working on this actively since 2018

I need more hands-on experience

### Practice, practice, practice

## What did I break?

• iBGP for Coloclue, firewall

• IPv6 for Coloclue, RPKI whitelist

Reserved wordlist change Bird

IPv6 maximum neighbor cache



#### Ask me anything, except my CRC-code

