

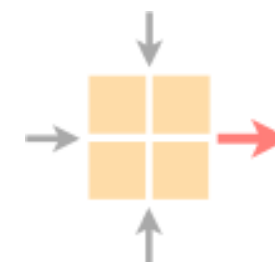
# Communication Networks

Spring 2021

Routing Project

Q/A session

April 15, 2021



Networked Systems  
ETH Zürich — seit 2015

# General information

The project counts for 20% of your final grade

- There is a total of 10 points (+0.5 bonus)

You can ask questions:

- During the Q/A sessions
- On Slack, in the **#routing\_project** channel
- Maybe your question is in the FAQ :-)

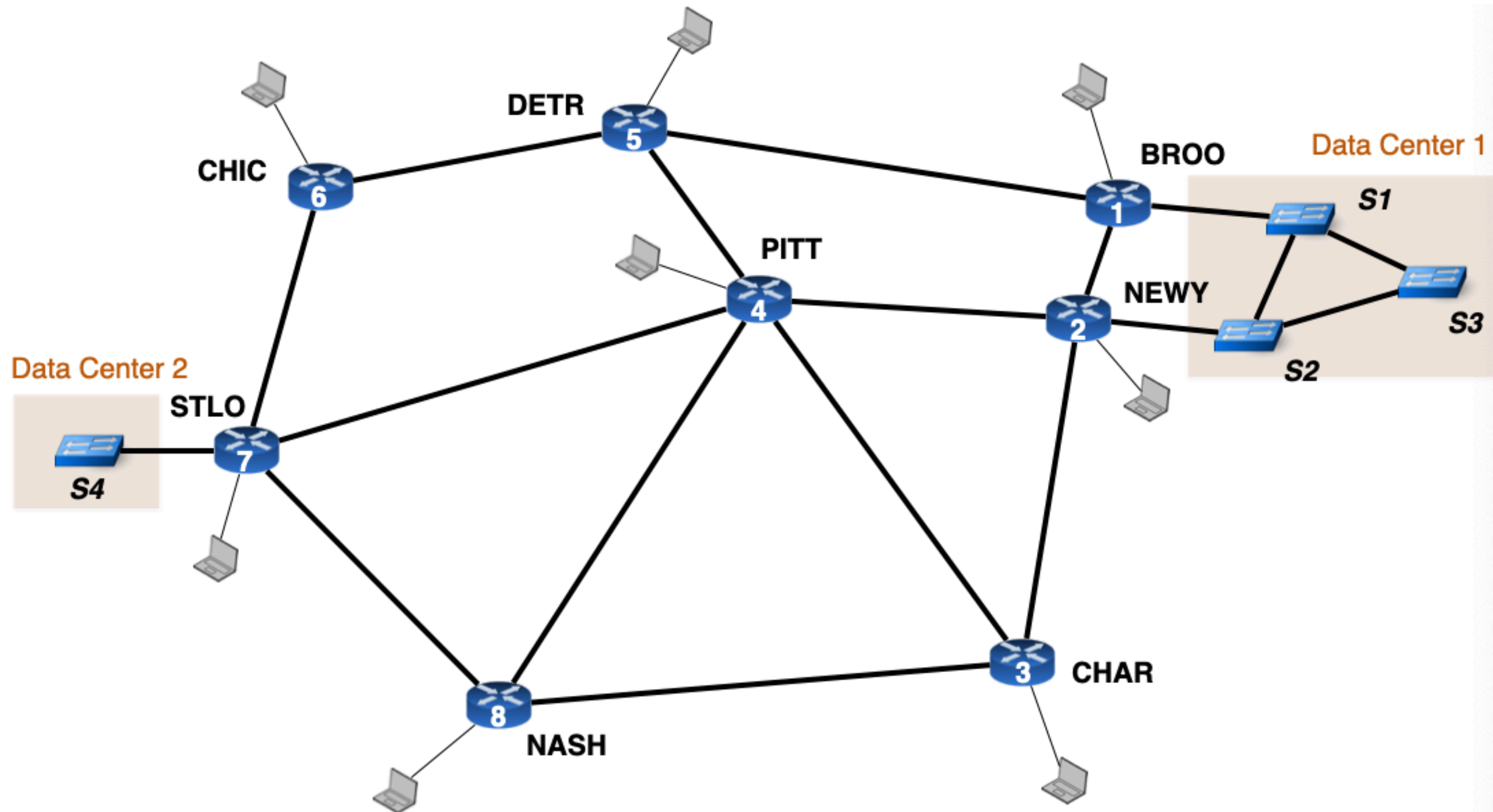
Use your GitLab repo to submit your work

- Submit your routers and switches configuration
- Submit your report (max 10 pages!)
- Sign the declaration of originality and submit it

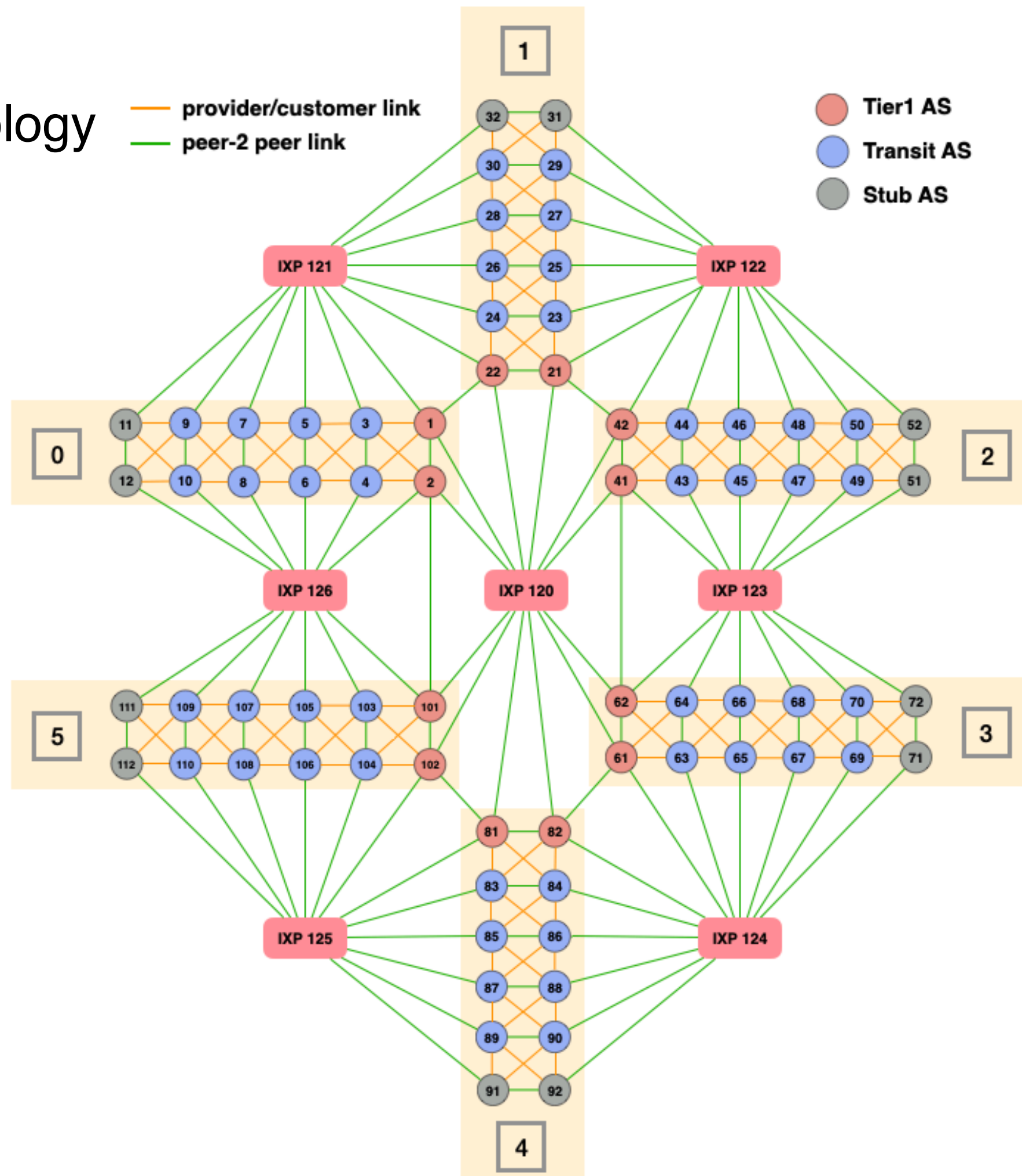
We wrote a tutorial where we give useful information

- Including how you can access your virtual devices

# Your internal topology

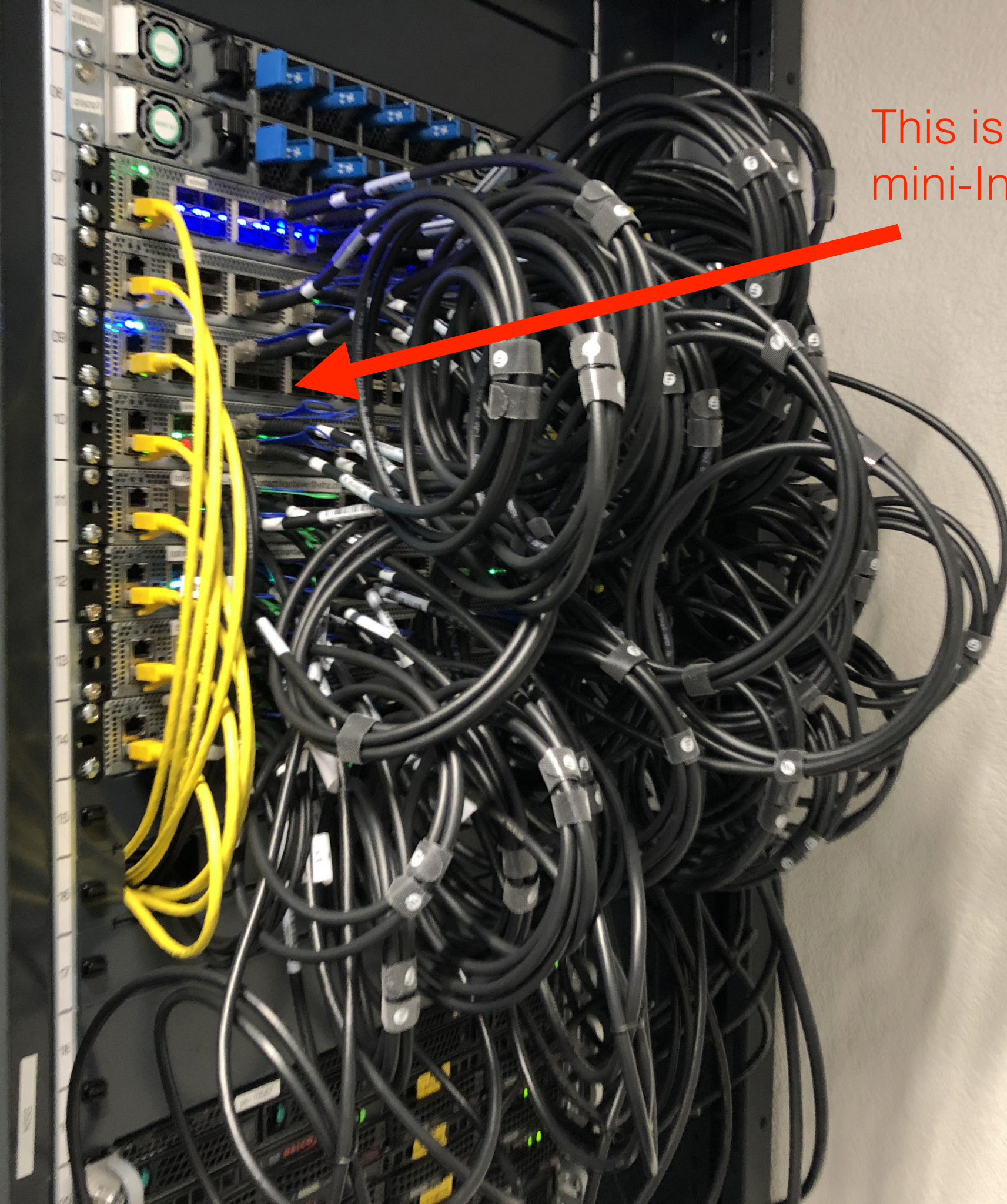


# The AS-level topology



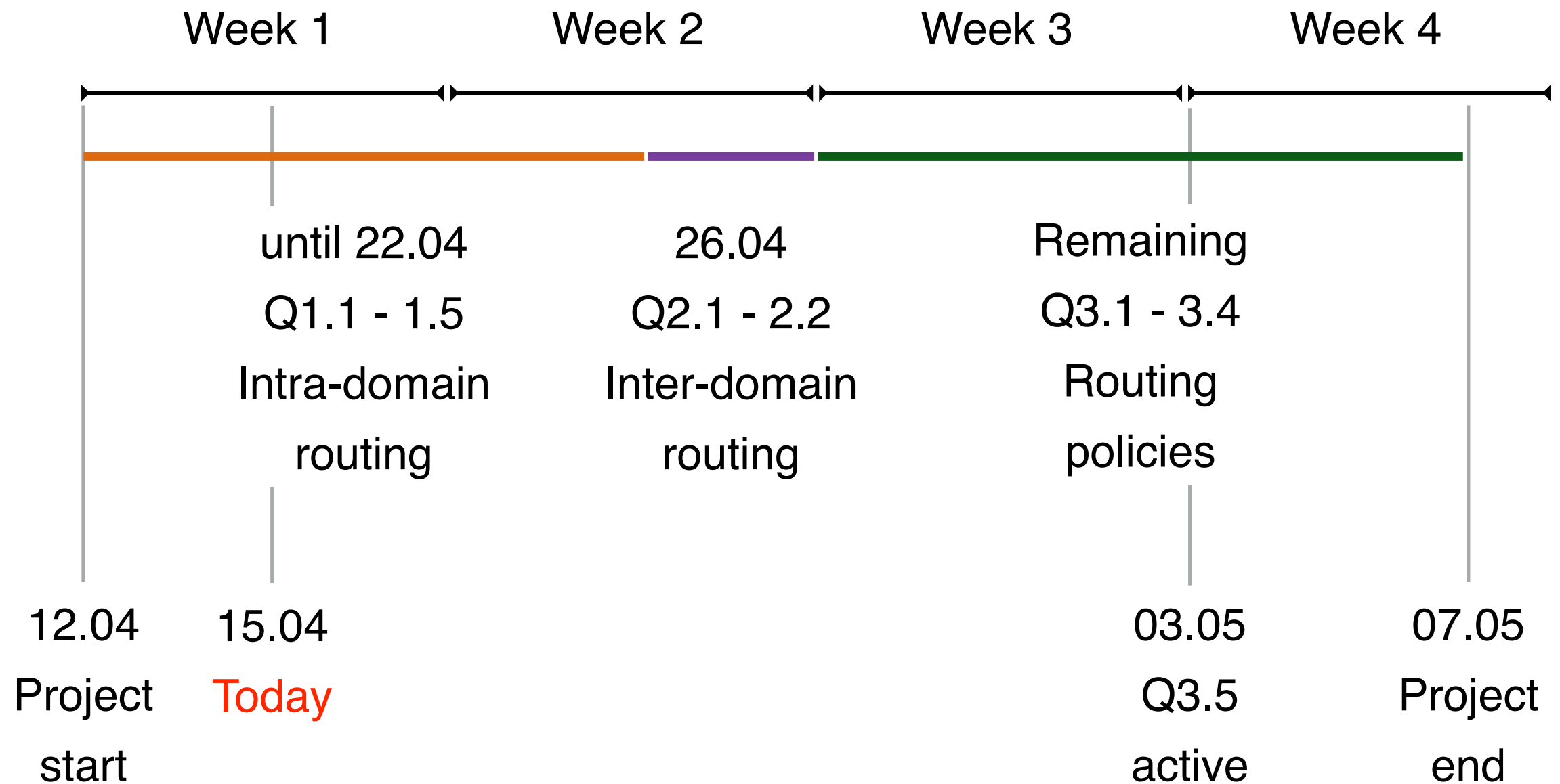


This is where your  
mini-Internet is running

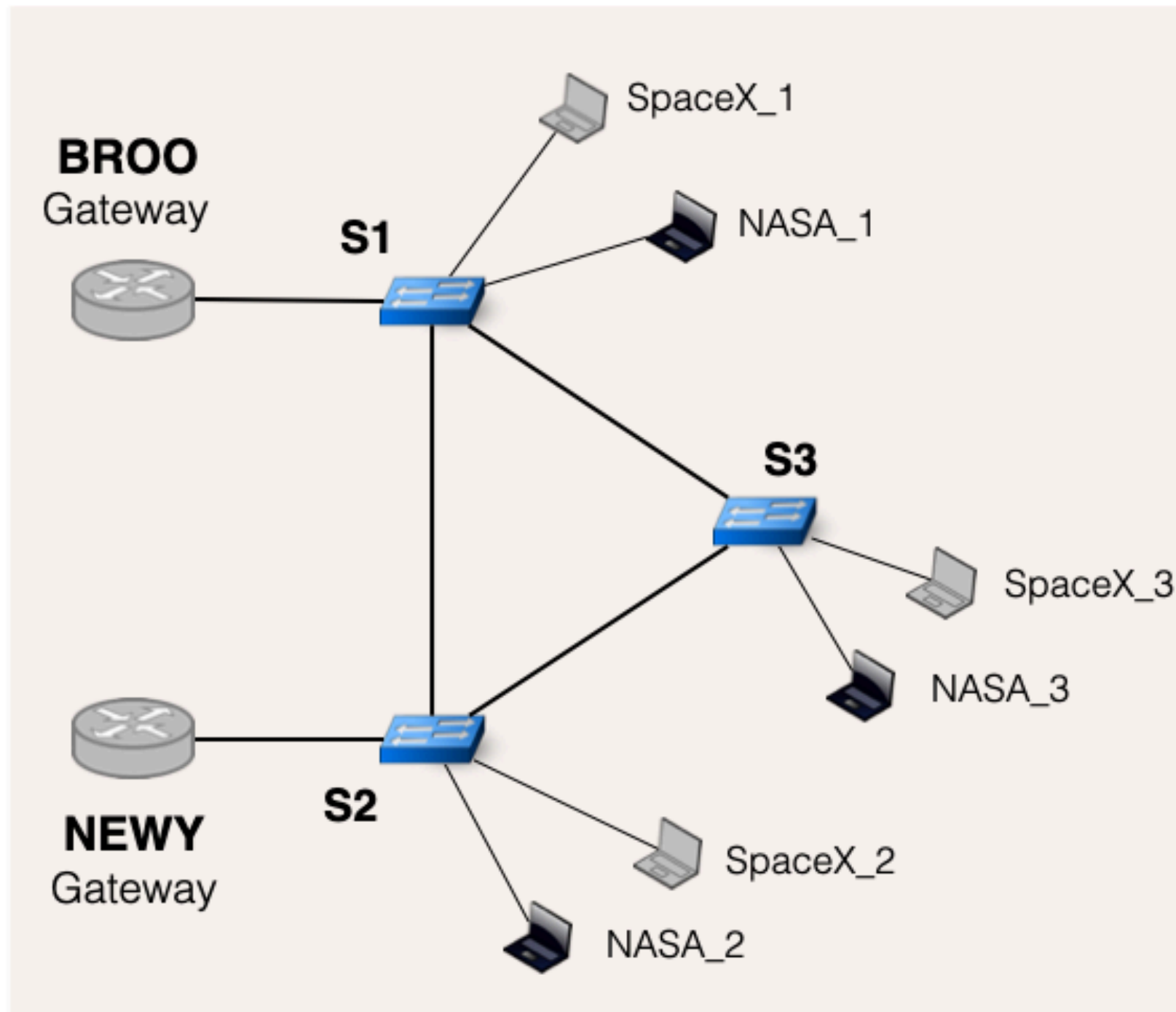




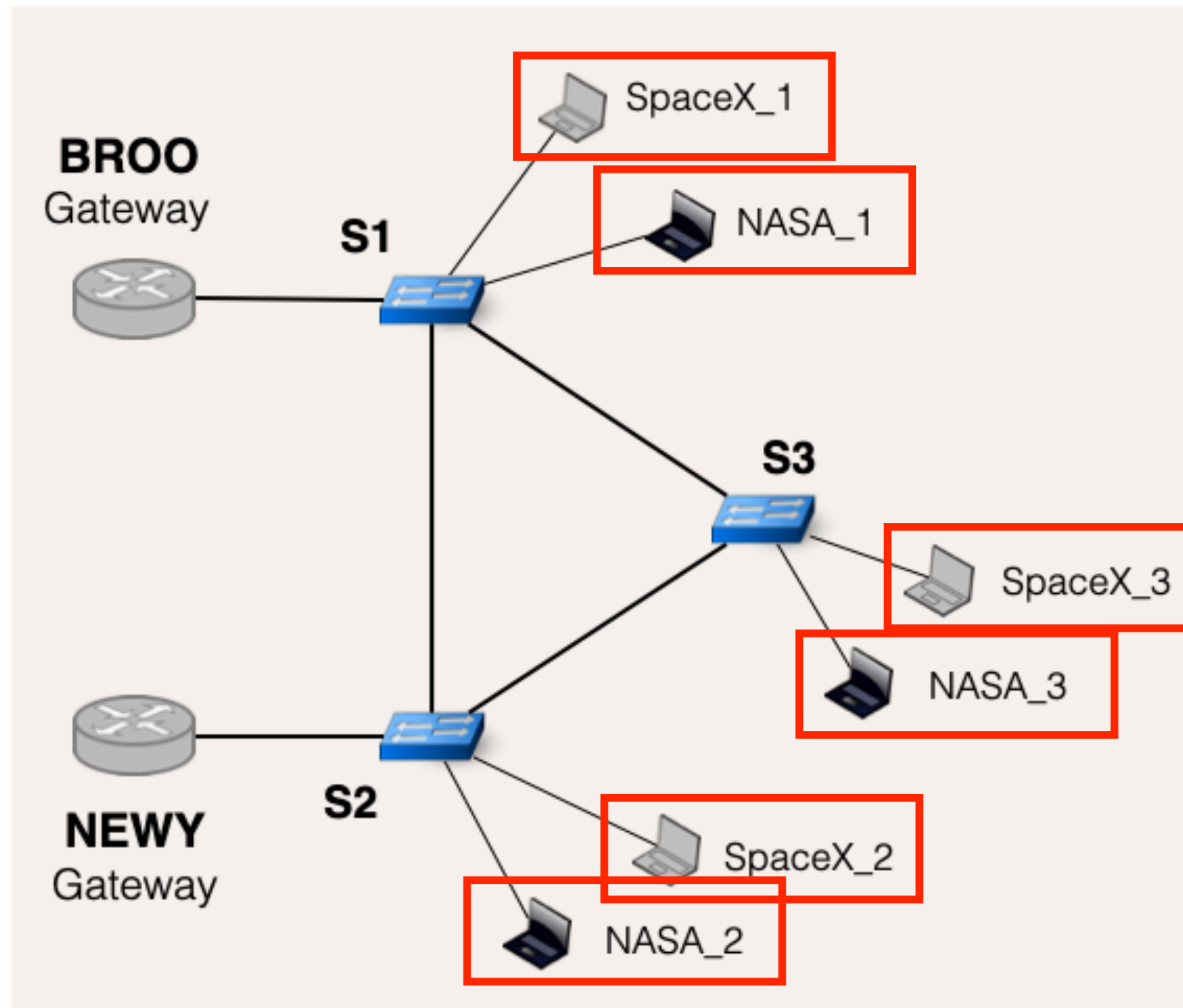
# Routing project timetable



## Question 1.1: Enabling connectivity in DC1

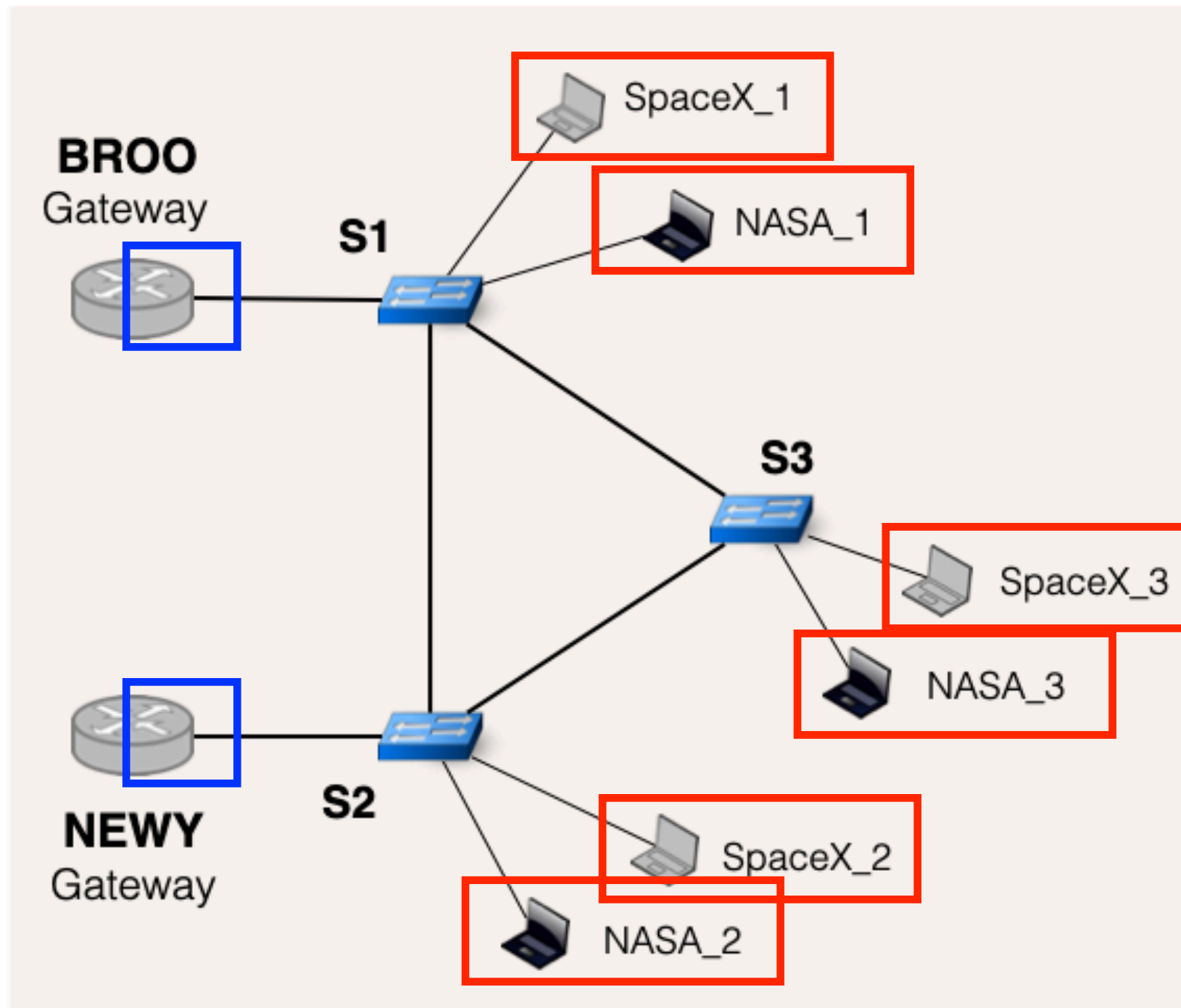


## Question 1.1: Enabling connectivity in DC1



Where to configure an IP address and a default gateway

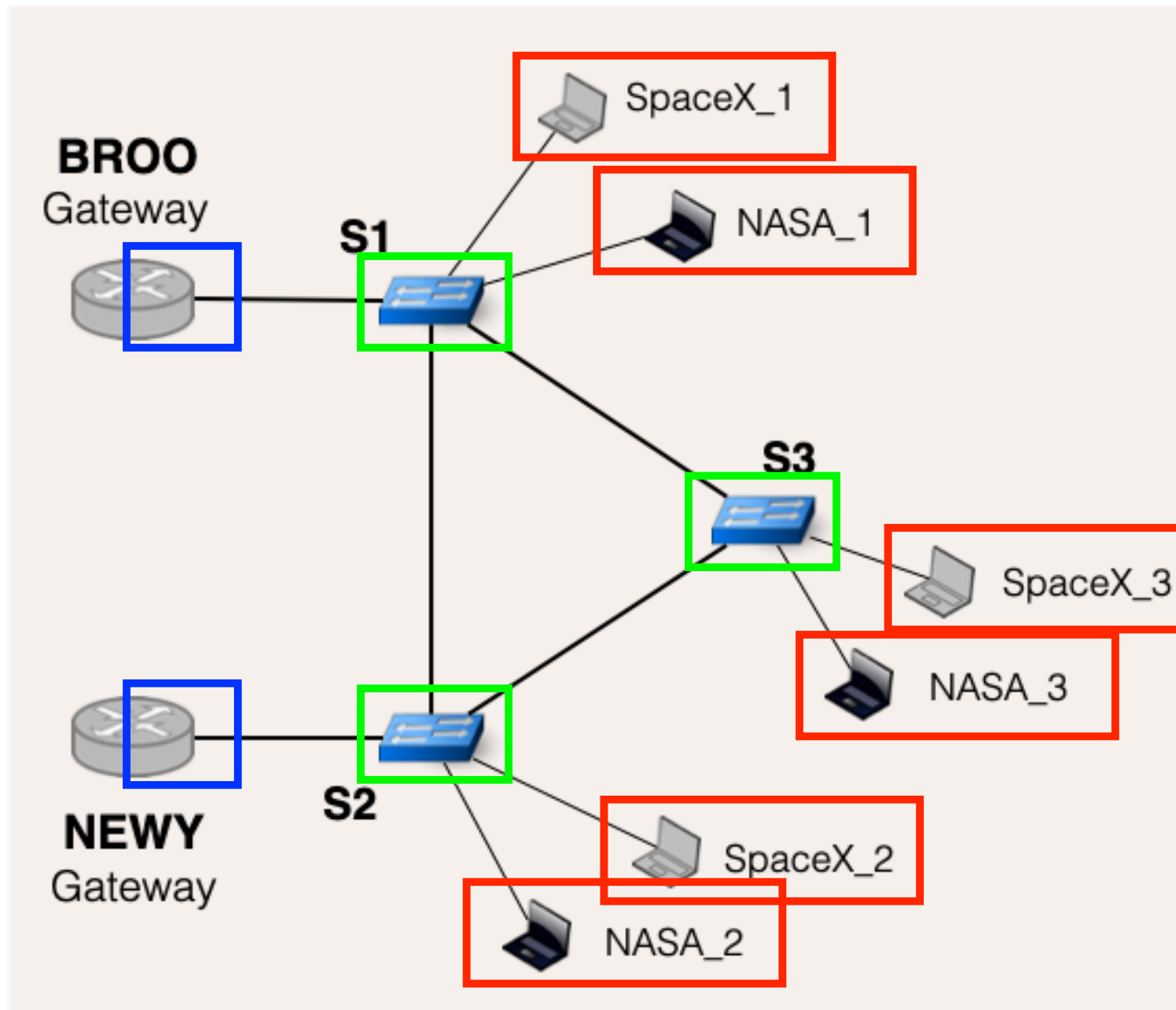
## Question 1.1: Enabling connectivity in DC1



Where to configure an IP address and a default gateway

Where to configure an IP address for each VLAN

## Question 1.1: Enabling connectivity in DC1

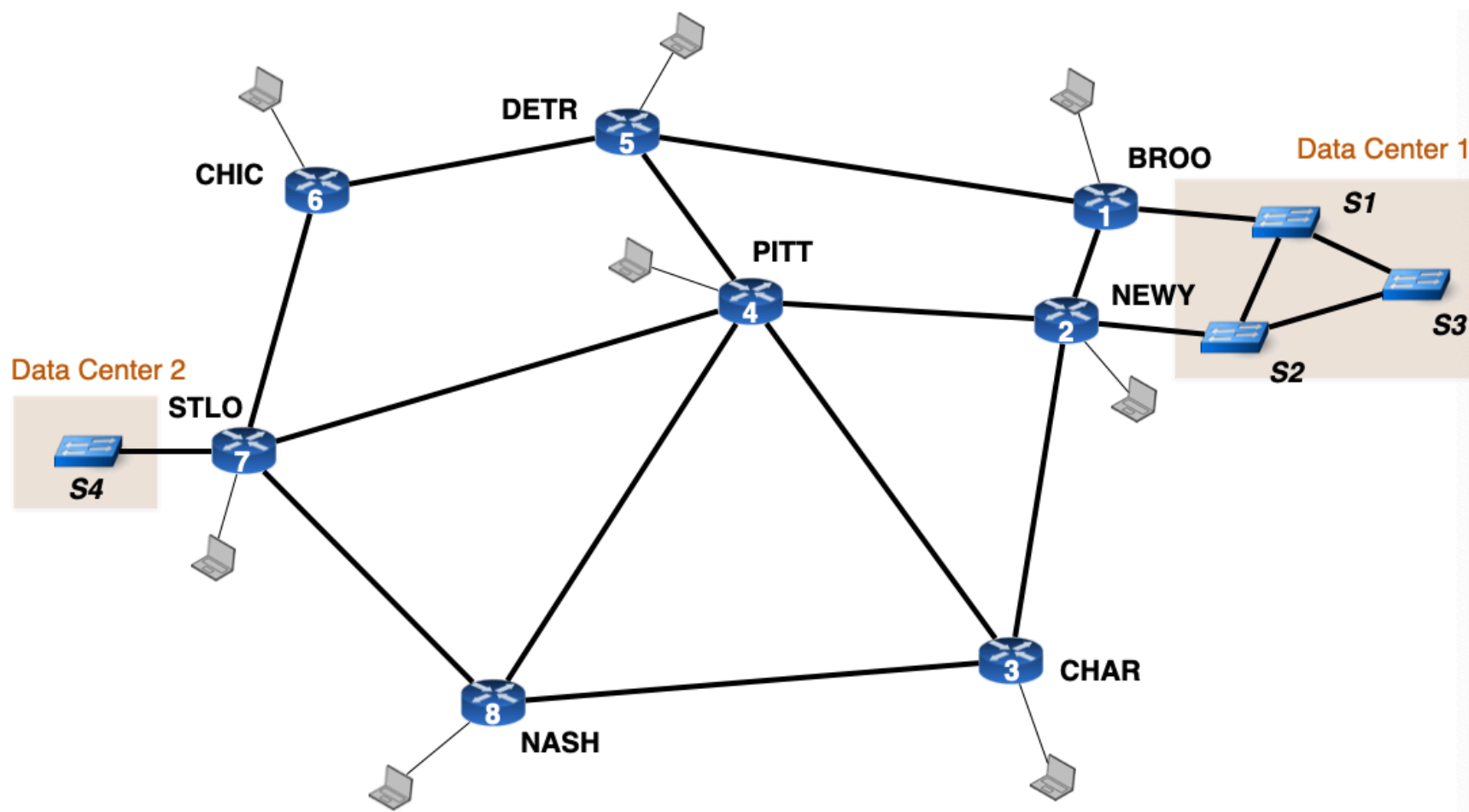


Where to configure an IP address and a default gateway

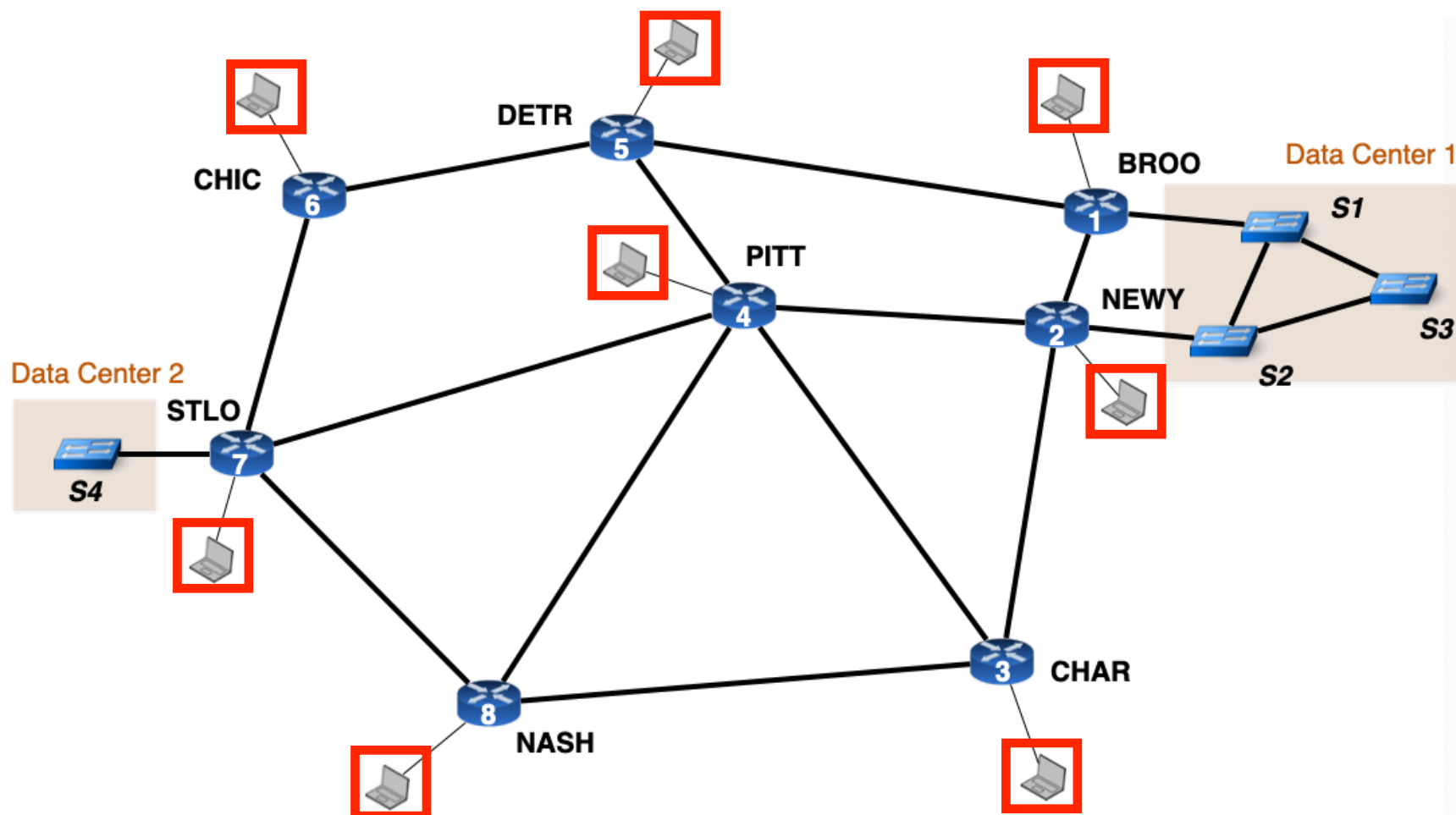
Where to configure an IP address for each VLAN

Where to configure the VLANs

## Question 1.2: Enabling connectivity in your IP network



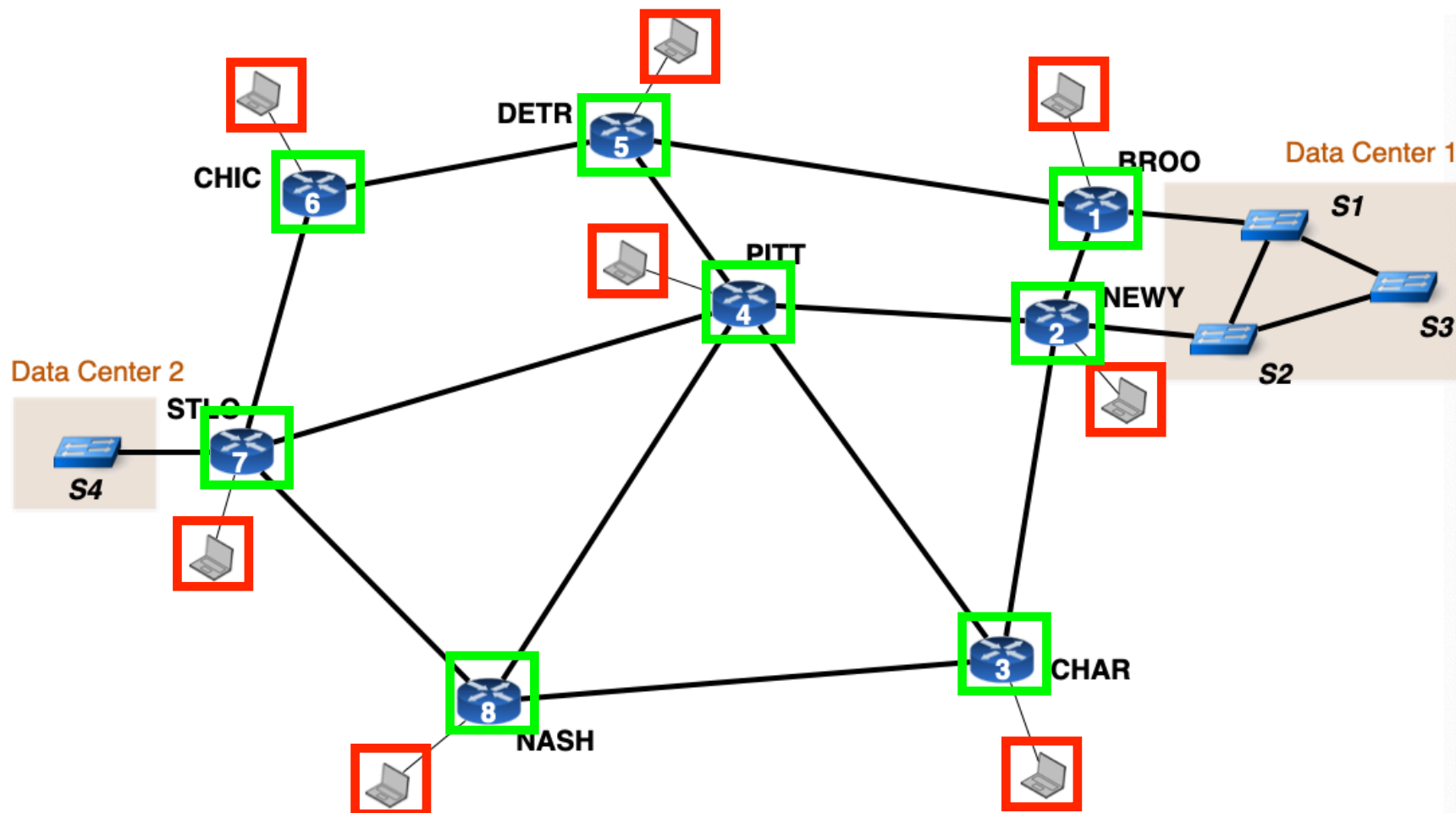
## Question 1.2: Enabling connectivity in your IP network



Where to configure an IP address and a default gateway



## Question 1.2: Enabling connectivity in your IP network



# Where to configure an IP address and a default gateway

# Where to configure IP addresses and **routing protocols**

# General advice: do not forget to use the debugging tools

## Linux networking tools

- Ping and traceroute to verify connectivity and IP paths
- Tcpdump to sniff packets on an interface

## Routers and switches debugging commands

- You can show the current config, the content of the routing table, etc
- You can see information about each protocol

## Monitoring tools we provide (and document in the Wiki)

- Connectivity matrix
- BGP looking glass
- Measurement container

We are here to guide you through the project  
**do not hesitate to ask questions! :-)**