Lab Course „RouterLab“

Organization

Tutorial

- **Time**
  - Thursday, 16:30 **st**
  - weekly (except for May 1st)
- **Room**
  - A 052 (Architekturgebäude)
- **Goal**
  - Give hints on how to solve problems of new work sheet
- Attendance **strongly recommended**

Teams / Time slots

- Forming teams:
  - 22 participants --> 11 teams
- Assigning time slots
  - Each group: 2 time slots à 3.5 hours
  - Extra time can be reserved
    - no more than 2 hours in a row
- Some constraints:
  - Same devices for both timeslots
  - Not 2 time slots for same group on consecutive days
  - ...

Weekly Events

- Tutorial: Thursday 16:30 st
  - new work sheets
- Debriefing (Room *Asterix*)
  - Tuesday, 16:00 **st**
  - Thursday, 15:00 **st**
  - Starts: May 13th, May 15th
- Submission deadline
  - Friday, 08:00 am, weekly
  - > 1 week after work sheet has been distributed

Accounts

- **RouterLab**
  - access to routers, switches, loadgens
  - 1 account per team
  - stepping stone cheetah.net.t-labs.tu-berlin.de
- **Snakepit**
  - access to student machines in Asterix
  - 1 account per participant
  - List of machines:
    - http://wiki.net.t-labs.tu-berlin.de/index.php/Pools
    - (wiki, knowledge)

Asterix

- Room
  - for debriefings
  - where you can work
- Location:
  - Telefunken building, 15th floor
  - http://www.net.t-labs.tu-berlin.de/location/t-labs.shtml
- Key cards:
  - Access: 08.00 – 20.00
  - More key cards soon from Britta Liebscher (16th floor)
  - Deposit: 20 €

Submission

- Read FAQ (Frequently Asked Questions)
  - http://www.net.t-labs.tu-berlin.de/teaching/ss08/RL_labcourse/faq.shtml
- Solutions
  - consist of multiple parts
  - can be in English or German
- Submit via script on Cheetah
  - submit-assignment <src_dir> <number>

Evaluation

- Please give us
  - feedback on workload
  - hints on possible improvements
- Evaluation sheet
  - will be handed out in tutorial
  - fill out 1 per team
  - put it into the box in *Asterix*

How to pass this course

- 25% of points for each work sheet (1 exception)
- 75% of total points throughout semester
- attendance to all debriefings
- **Don't cheat!!!**

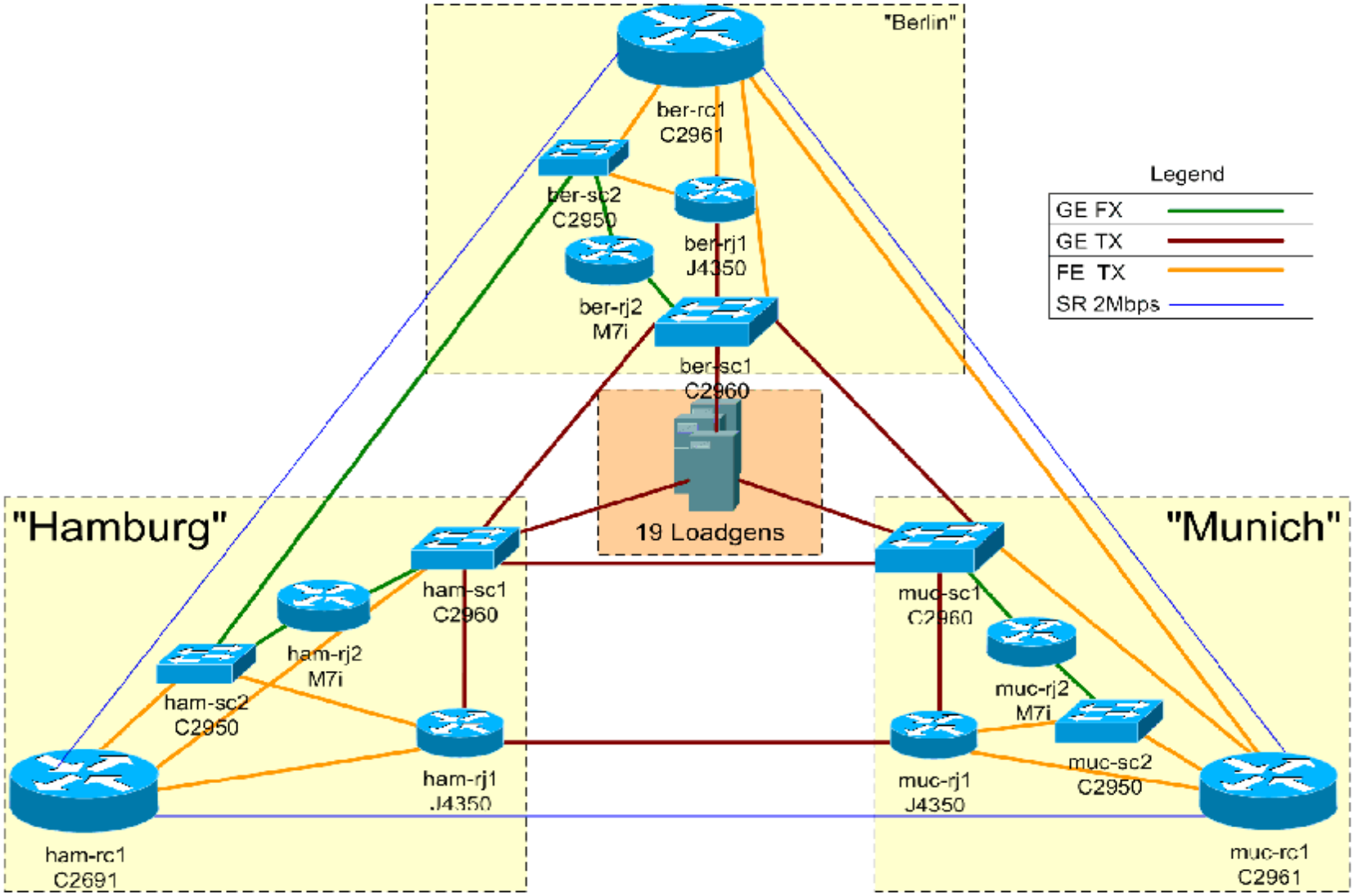
Lab Course „RouterLab“

Work Sheet 1: RouterLab Introduction

Access devices

- **Which?** Devices that are assigned to you according to table at beginning of work sheet
- **When?** Current time is
  - within your time slot
  - or you reserved extra time via the reservation system (*Labtool*)
    - **extra time slots can't be longer than 2 hours!!**

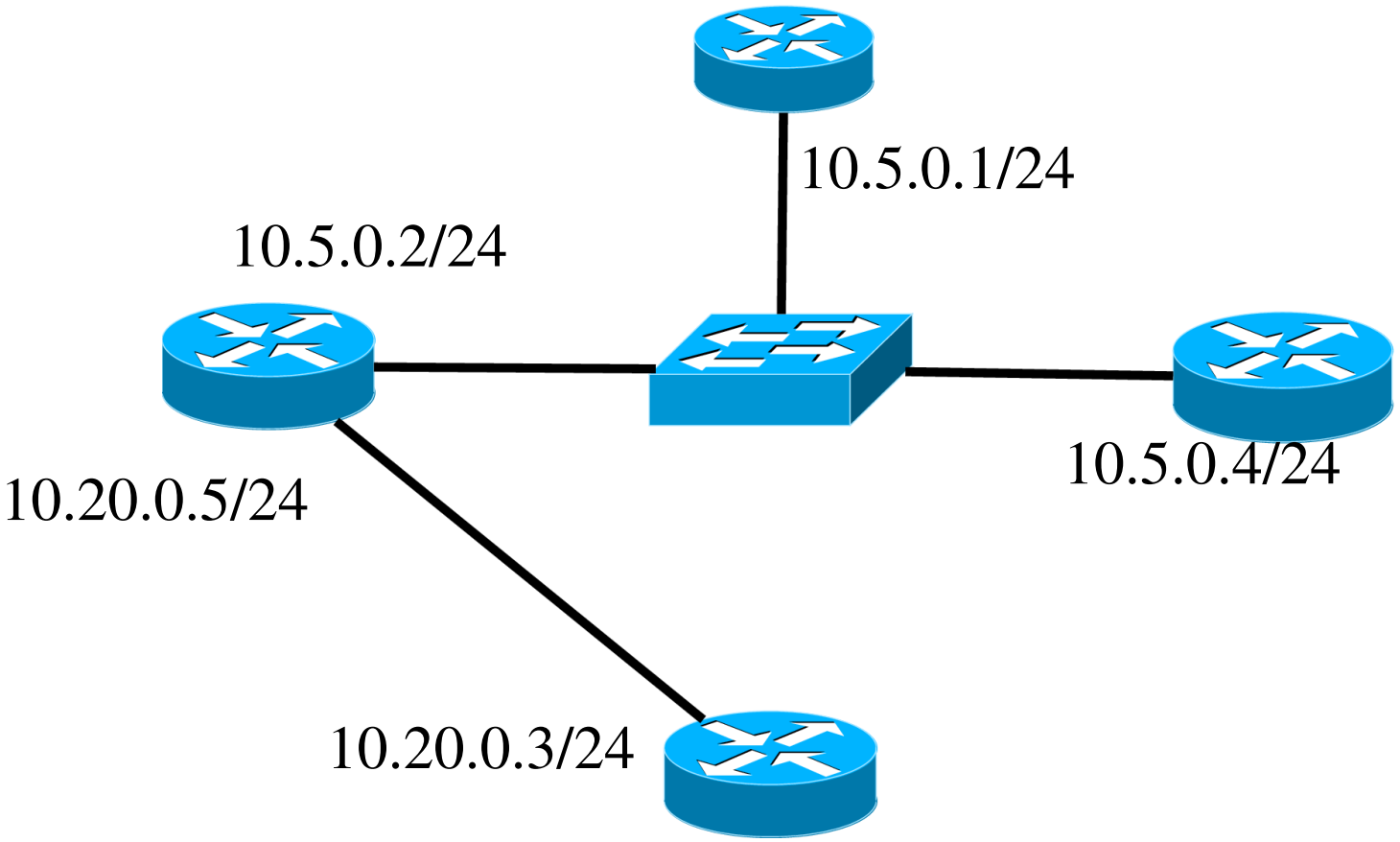
Question 2: RouterLab topology



Question 2:

- Get to know the RouterLab topology
  - You have to answer some questions
  - This should be part of the **main solution**
  - https://routerlab.net.t-labs.tu-berlin.de/
- IP connectivity from *Loadgen* to Router *rc1*
  - Which interfaces? Which IP addresses
  - Topology map in PDF (generate with Dia, Visio, ...)

Assigning IP addresses



Question 3: Access devices (Demo)

- Linux PCs (Loadgens):
  - SSH as root
- Cisco Router / Switches (Cisco IOS)
  - via console server
  - figure out states
- Juniper router (JunOS)
  - via console server
  - figure out states

Question 4: Labtool

- How to reserve devices
  - lab -u wolfgang -a 'now','in 1 hour',wolfgang -D ham-rc1
- How to dump configuration of reserved device
  - Manually: Copy to text file
  - With Labtool: lab -u wolfgang -d ham-rc1
- Display a dumped configuration
  - lab -l ham-rc1.<rid>.<version>

If you have questions

- First check FAQ!
- Then talk with other students
  - it's allowed to talk with other groups
  - it's not allowed to copy the complete solution
- Check other sources
  - Web, Google, ...
- Finally, send e-mail to
  - mailto:praktikum@lists.net.t-labs.tu-berlin.de