

# Lab Course „RouterLab“

## **Organization**

# Tutorial

## □ **Time**

- Thursday, 16:00 **st**
- Except for May 21<sup>st</sup> („Christi Himmelfahrt“)

## □ **Room**

- A 052 (Architekturgebäude)

## □ **Goal**

- Give hints on how to solve problems of new work sheet

## □ Attendance **strongly recommended**

# Weekly Events

- ❑ Tutorial: Thursday 16:00 **st**
  - new work sheets
- ❑ Debriefings:
  - **Room: TEL 103, Telefunken, 1<sup>st</sup> floor**
  - Wednesday 15:00 **st** - 16:00
  - Wednesday 17:00 **st** - 18:00
  - Starts: May 6th
- ❑ Submission deadline
  - Friday, 08:00 am, weekly
  - > 1 week after handing out work sheets

# Accounts

## ❑ RouterLab

- Access to routers, switches, loadgens
- 1 account per team
- Stepping stone: *cheetah.net.t-labs.tu-berlin.de*
  - Access via SSH
  - See demo later!

## ❑ Where to work

- IRB: Telefunken, 1<sup>st</sup> floor
  - Required: TUBIT account
- At any place with Internet connection

# Submission

- ❑ Read FAQ (Frequently Asked Questions)
  - [http://www.net.t-labs.tu-berlin.de/teaching/ss09/RL\\_labcourse/faq.shtml](http://www.net.t-labs.tu-berlin.de/teaching/ss09/RL_labcourse/faq.shtml)
- ❑ Solutions: consists of
  - Main solution: „summary“
  - Configuration of routers/switches/loadgens
  - Output of commands
  - Topology maps
- ❑ Submit via script on Cheetah
  - `submit-assignment <src_dir> <number>`

# How to pass this course

- ❑ 25% of points for each work sheet
  - 1 exception is allowed
- ❑ 75% of total points throughout semester
- ❑ Attendance to **all** debriefings for **both** team members mandatory!
  - If you can't attend: Keep to the rules described in the FAQ!
- ❑ Don't copy from other teams!
- ❑ Both team partners must be able to explain the complete solution!

# Lab Course „RouterLab“

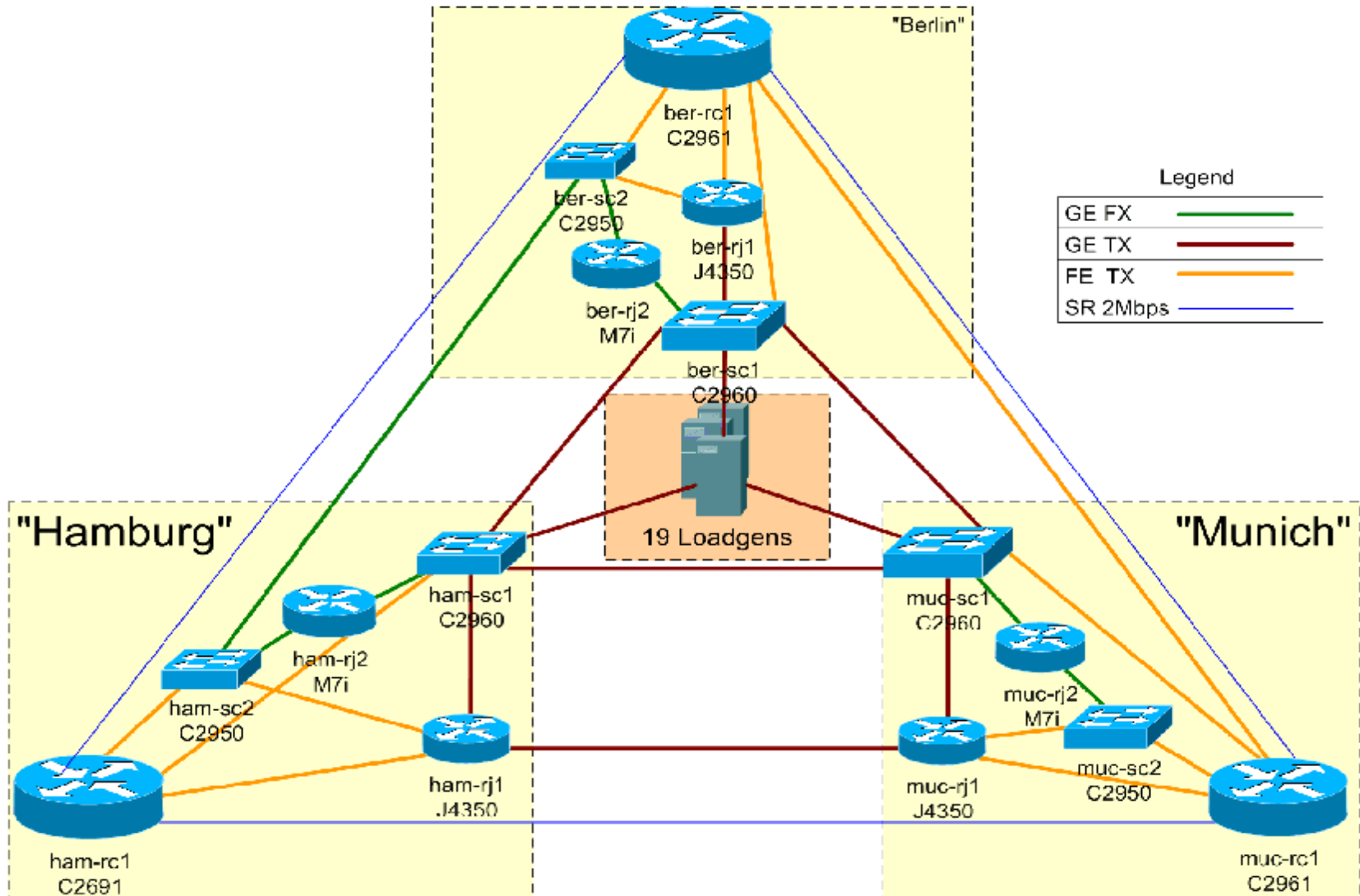
## **Work Sheet 1: RouterLab Introduction**

# 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, ...)

# 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
- ❑ How to dump configurations of reserved devices
  - Manually: Copy to text file
  - With Labtool:
- ❑ Display a dumped configuration

# If you have questions

- ❑ Read complete worksheet (again)
  - We recommend that you read the complete worksheet before your timeslot starts.
- ❑ Check FAQ
- ❑ Check other sources
  - Web, Google, ...
- ❑ Finally, send e-mail to
  - <mailto:praktikum@lists.net.t-labs.tu-berlin.de>
  - **NOT to individual tutors!**

# Teams / Time slots

- ❑ Forming teams:
  - 16 participants --> 8 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
  - ...