

Computer System Security and Management, D0004E 2011

Labs introduction

Overview

The main objective of the labs is to give you hands-on knowledge and develop your ability to deal with some essential administration and security related routines on various operating systems. The laboratory part of this course consists of 10 mandatory tasks and 7 extra tasks. You will work in teams of two for administering a scaled version of a real site consisting of servers, clients and routers/gateways. For that purpose each team will employ three computers that are connected in a private network as shown on Figure 1 below:

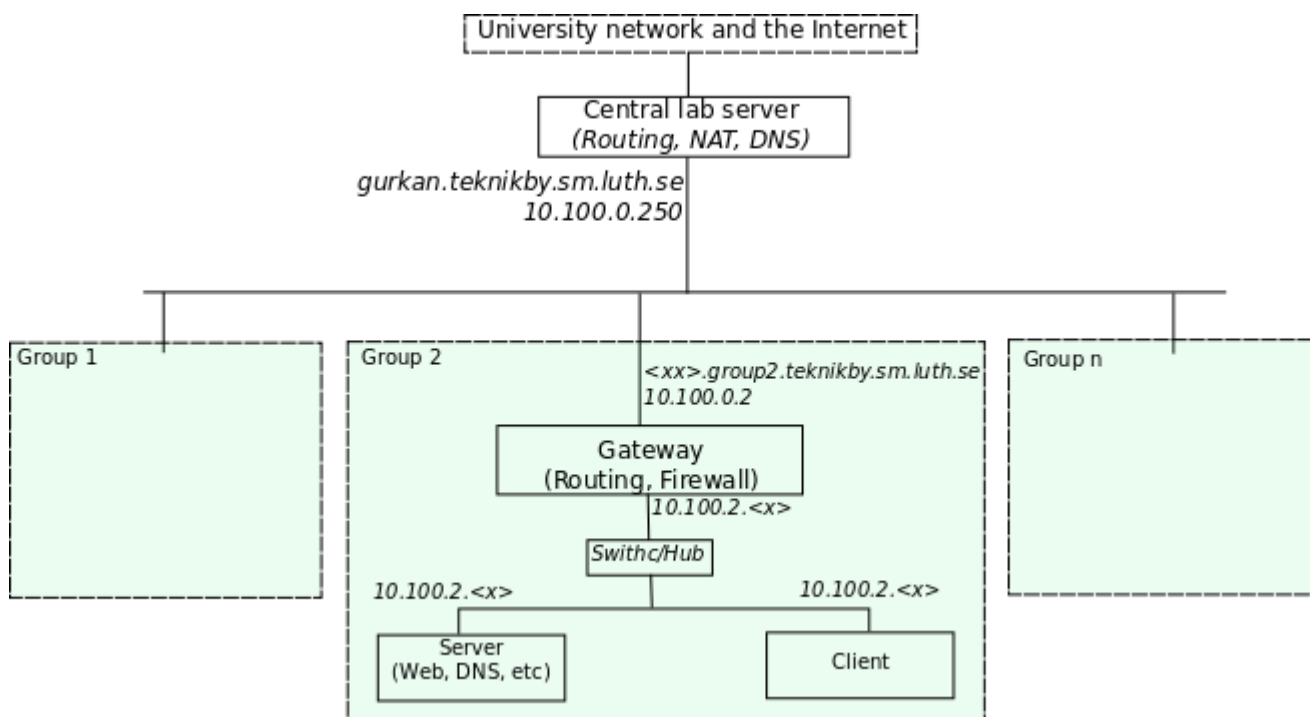


Figure 1: Labs setup overview

The role of the lab supervisor is to review your work and aid you along the way, and not to solve the exercises for you.

IMPORTANT: Oral discussions are good, copying other groups' files is not. Your understanding of what happens beneath the hood will be interrogated during the final examination. If you don't understand something, then re-iterate until you do.

The main literature for the labs is the course book:

Unix and Linux System Administration Handbook 4th Edition, Evi Nemeth, Garth Snyder, Trent Hein, Ben Whaley, ISBN: 9780131480056

In the detailed description of the labs it is referred to as “the labs book”.

Assessment

The assessment of your lab work consists of lab reviews and final examination. There will be two lab reviews: tasks 1, 2 and 3 will be reviewed on 15th of September and tasks 4, 5, 6 on 4th of October. These reviews will only check the status of your lab setup and your progress. By the time of the reviews you should have completed all mandatory tasks required i.e. tasks 1, 2, 3 by 15/9 and tasks 4, 5, 6 by 4/10. Failing to do so will result in extra assignments.

The final examination should verify the successful completion of mandatory tasks 1 to 9 and the extra tasks you carried out if any (see the checklist below). Moreover, the understanding of the lab work will be examined for each student by means of short questions (1 or 2) to each team member for each task. Sample questions for the final examination will be given along with the description of each task.

You should send an e-mail to the lab supervisor to book a time for the final check no later than 19th of October . The time slot for the final examination is Monday 24/10 and Tuesday 25/10. The table below shows a summary of the deadlines for the laboratory work:

Important dates	Description
Sep 15	Review of tasks 1, 2 and 3
Oct 4	Review of tasks 4, 5 and 6
Oct 19	Deadline to book a time for the final lab exam
Oct 24 – 25	Time slot for the final lab examination

Mark information

Requirements for:

- Passing grade (grade 3 or ECTS grade E): Pass all mandatory tasks.
- ECTS grade D: Pass all basic steps and have a minimum of 2 extra tasks.
- Grade 4 (ECTS grade C): Pass all basic steps and have a minimum of 3 extra tasks.
- ECTS grade B: Pass all basic steps and have a minimum of 5 extra tasks.
- Grade 5 (ECTS grade A): Pass all basic steps and have a minimum of 6 extra tasks.

All the requirements above assume you understand the lab work i.e. answer correctly to the question in the final examination. Failing to answer two questions will result in lowering the above grade by one.

Three or more incorrect answers result in failing the laboratory part of this course.

Final examination checklist

Recommended things to do before final examination review:

- Make sure that all systems reboot cleanly
- Verify that your configured services actually work in all the required aspects as specified by the tasks descriptions.
- Always test that the installed/configured software is running as expected (especially after reboot).
- Check what traffic your firewall lets through. What is allowed to enter from the external network to your internal one? Why? What is denied to exit from your internal network to the external one? Why? What is allowed to/from the gateway box itself.
- Make sure that all your systems are up to date.
- Be prepared to explain the steps you followed to complete each task and answer questions that test your understanding of the work carried out in each lab exercise. You could write notes or use the *history* command for example to help you keep track of what has been done.