Computer Network Technologies and Services: introduction to lab exercises

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Lab exercise topics

- Lab exercises will cover the following topics:
  - IPv6 router configuration
  - VPN configuration
  - SIP packets capture and analysis
- Exercises can be done at home
- Exercises are not mandatory
- Exercises can increase the final outcome for a maximum of 3 points
- Topics covered in lab exercises are part of the course program and can be included in exam questions
Group registration and exercise submission

- Exercises are available on the “Portale della Didattica”
- Students must create 2-people groups that cannot be changed during the course
  - Register the group at:
    - (CNTS students) http://bit.ly/cnts2012-groups
    - (TSR students) http://bit.ly/tsr2012-groups
  - The group registration phase will be open for a couple of weeks
  - Lab calendar is on the next slide
- Exercises must be submitted by hand to one of the teacher during lab hours
Lab calendar

- Lab hours:
  - (CNTS) Tuesday 8.30 – 11.30
  - (TSR) Friday 14.30 17.30

- Sessions will be held in LADISPE, near room 12

- The lab calendar will be defined soon
Evaluation

- Brief and precise responses will be appreciated
- Grades:
  - 0 points: no submissions, gross errors, copy & paste among groups
  - 0.5 points: correct submission with some errors
  - 1 points: correct submission with no/minor errors
Exercise 0 (tutorial)

- Exercise 1 is based on a virtual routing lab (Dyn@NG), deeply revised with respect to past years.
- Session Lab "tutorial" has the purpose of allowing students to get familiarity with the Dyn@NG system.
- It is recommended to attend and complete the tutorial before starting Exercise 1.
- Feedback is appreciated on problems and criticalities observed during virtual lab utilization.
- Tutorial does not have a grade.
Exercise 1

- Purpose:
  - Creating an IPv6 addressing plane
  - Experimenting on Cisco routers concerning IPv6 configuration

- Some additional documentation concerning Exercise 1 is available on the “Portale della Didattica”

- The exercise is based on a virtual routing lab
  - Remotely reachable at: http://dynng.ipv6.polito.it
Exercise 2

- Purpose:
  - Learning VPN operation by means of traffic captures
Exercise 3

Purpose:

- Learning SIP protocol operation during the establishment of multimedia sessions by means of traffic captures