1. Networking II Lab manual

In our Networking Laboratory in La Salle University, we also teach Opnet basics to second degree students. The philosophy of this tutorial is the same as Networking Laboratory lab manual, explained in the last report. Both tutorials try to give the students a global vision about simulating processes, but these tutorials are different because of the different background of the students. About 250 students join these labs.

The main goal of this tutorial is to make a stimulating introduction to simulation process, because these students are less related to networking than Networking Laboratory students. This introduction deals with basic network configuration, but less hard than introduction to Networking Laboratory manual. It explains a basic network configuration with Ethernet, VoIP and wireless technologies. First, an Ethernet network is configured and then, some network components are replaced with others from other technologies.

Students have to answer some questions about the changes that have been introduced in the scenarios with different technologies. These changes have influenced network performance. This is the first part of the lab.

In the second part, more VoIP components are introduced and tested. Furthermore, ToIP is also explained and tested in order to achieve a solid knowledge about different OPNET models and possibilities.

There are some enhanced exercises to check the student knowledge. At the end, there are some hints to help them to solve questions stated before.

We have introduced concepts about Flow Analysis at the tutorial end, such as its performance, application and function and the way to achieve the best network analysis.

Figura 1: Basic ethernet scenario configuration