



UNIVERSIDADE DA CORUÑA
Computer Science Department

COMPUTER NETWORKS LAB

Practice 3: Routing table optimization in Packet Tracer



Scenario

- This scenario represents an organization.
- The organization has contracted a class C address: 200.0.0.1/30.
- Since there are many devices in this organization, that class C address is not enough. So, a new class C address is contracted (199.5.X.0) and subnets are created.
- Every student will start with a class C address where the third octet is formed by the last two numbers in her/his document identifier (DNI in case of being a Spanish student). For example: if my DNI is 69.111.3**33**-T, the IP for the organization will be 199.5.**33**.0.
- Considering the IP addresses already specified in the scenario, students are asked to configure the following points:
 - Subnet masks and identifiers must be computed.
 - IP addresses must be assigned to router and PC interfaces.
 - There should be full connectivity between all the devices in the scenario.
 - The web server must be reachable from every device in the organization.
 - The number of entries in the routing tables should be minimized and the subnet masks should be optimized.

Checklist

This is the checklist this practice:

1. Subnets definition
2. Connectivity between subnets and with the web server
3. Routing table optimization: minimum number of entries and optimal masks

The network must be according to the document identifier. Otherwise, the grade will be 0. The highest grade will be 0.5.



Delivery instructions and defense

In the evaluation we will employ the file uploaded by the student to Moodle using the task called “Packet Tracer – p3. Entrega/submission”. A file called p3.pkt will be uploaded.

Students should be able to explain any component of the scenario.

The deadline for the submission is on May 8, at 20:00. Students will defend her/his practice on 9th, 10th, 13th, 14th and 15th May in her/his usual practice class. Defense in other groups is not permitted without an appropriate justification.

The p3 defense will coincide with the p2 defense.