

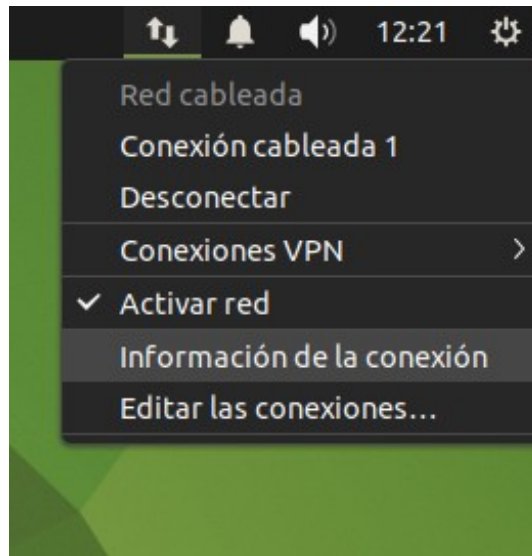


UNIT 03: DOMAIN NAME SERVICE

Laboratory 1: nslookup, dig and host commands

Switch your Ubuntu Server VM on, make sure it has an Internet connection and answer the following questions.

1. Which DNS server is your computer using on, check it using the graphical interface (network icon in the right up corner)?



2. Now, find out the same that in exercise 1, but using the command line. You can look for the answer on the Internet and use our forum to suggest your solution.
3. How could you change your DNS servers on your computer using the graphical interface?
4. Run the following command "nslookup www.google.es"
 - a) What does it do?
 - b) Which DNS server gives the answer? Does this server sound familiar?
5. Run the following command "nslookup www.google.es 8.8.8.8"
 - a) What does it do?
 - b) What means the 8.8.8.8 ip address on the command?
 - c) Is this DNS authoritative for the zone (google.es)? How do yo know?
6. Run the following command "nslookup www.google.es ns1.google.com"
 - a) Is this DNS authoritative for the zone (google.es)? How do yo know?
 - b) Which is the difference between this exercise and the above?

Take a look at the following link and you will discover some clues that help you to answer the exercises 5 and 6.



<https://developers.google.com/speed/public-dns/docs/intro>

7. Dig is another command closely related to dns. Run it without any arguments and you will see dns root server names.
8. Run the following command “dig @dns-ipaddress* +trace www.upv.es”, where dns-ipaddress* must be your DNS ip address. Which ip address has www.upv.es ? How many DNS servers has the domain upv.es? What are they called? Which give us the answer?
9. The last command we are going to use in this lab is host, so try again exercise number 4 and run “host www.google.es”.
10. Visit www.intodns.com and discover which dns server are asked for information before asking authoritative dns servers for each of the following zones?
upv.es google.es google.com

Now visit <http://dnstree.com>, and complete the information.

Answer for each domain the following question. Which DNS servers have been visited in order to get the answer?

Imagine, suddenly all these DNS servers are off. What would happen if we asked again for the same zones? Would we receive the correct answer? Why?

11. Run the following commands and compare their outcomes:
 - a) dig google.es
 - b) nslookup google.es
 - c) host google.es