

Network Address Translation

Instructions: Run a test of your network address translation using the instructions on page 549 of our textbook. You will need to be connected to a network.

Please report your results for the assignment. There are no right or wrong answers, so report your results faithfully, whatever they may be.

1. Define Network Address Translation.
2. What is the IP address of the computer you are currently working on?
 - Use the cmd program, *ipconfig* on Windows computers.
 - Use the Terminal program, *ifconfig* on Mac OS
3. Is this IP address within the range of private addresses on page 550?
4. Go to [IPChicken.com \(Links to an external site.\)](#)[Links to an external site.](#).. What IP address do they report for your computer?
5. Do the two IP addresses match?
6. So, are you running under NAT on your current computer?
7. Any interesting/surprising observations?

More info for Mac iOS users (thanks to Mia Woods and Brooke McKee for bringing this up)

Depending on the age of your Mac, your IP address info may be displayed in different places (see image below). I have an elderly (> 8 years old) MacBook at home that displays info in the opposite location in *ifconfig* than where your newer Mac (< 5 years old) does. I both enabled WiFi and plugged it directly into my router with a patch cable so you can see the multiple entries below.

NAT_iOS ports.png

For newer Macs, your WiFi information should be listed under the en0 entry. The IPv4 address is listed next to "inet". The entries are flipflopped on my dinosaur MacBook, but since both entries display internal IP addresses, it doesn't really matter... NAT is enabled either way. You will likely see two internal IP addresses or two "real" IP addresses if you have two connection entries, so use either one for your homework. (If you only have one connection entry, that probably means that only your wireless card is currently being used.)

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