# COMP 8505 ASSIGNMENT 4 TESTING DOC

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## Introduction

The purpose of this assignment is to become familiar with DNS spoofing and ARP poisoning. We DNS spoof by using a man in the middle attack (arp posion). We perform ARP spoofing by connecting to the authenticated IP address and thus begin receiving information that was intended for the victim machine. Anything the victim machine receives will first go through us. For this assignment, we perform DNS spoofing by establishing a connection with the victim machine and the router and begin receiving all packets destined for the victim. Instead of sending the packets that the victim machine required, we send them our updated packets which leads the machine back to an IP of our choice (our own website for this assignment). If the user were to access, for example, www.yahoo.com, we would receive the response from the router and craft our own packet to send back to the victim machine to direct them to our website being hosted on our server..

## Usage

Before running the program, ensure you are the root user and have the zip folder stored somewhere on your computer. Navigate to the zip/tar file and extract it to a location of your choice. Go to the extracted files location.

Inside the folder are 3 files, the ARP poison file, DNS spoofing file, and the config file. Open the config file and enter in each of the following:

Mac address of your machine
The router's mac address
The target machine's mac address
Your IP
The router IP
IP of the target machine

Save the contents of the file. In command line, navigate to the folder containing the files and type the following:

```
#python3 dnsSpoofer
```

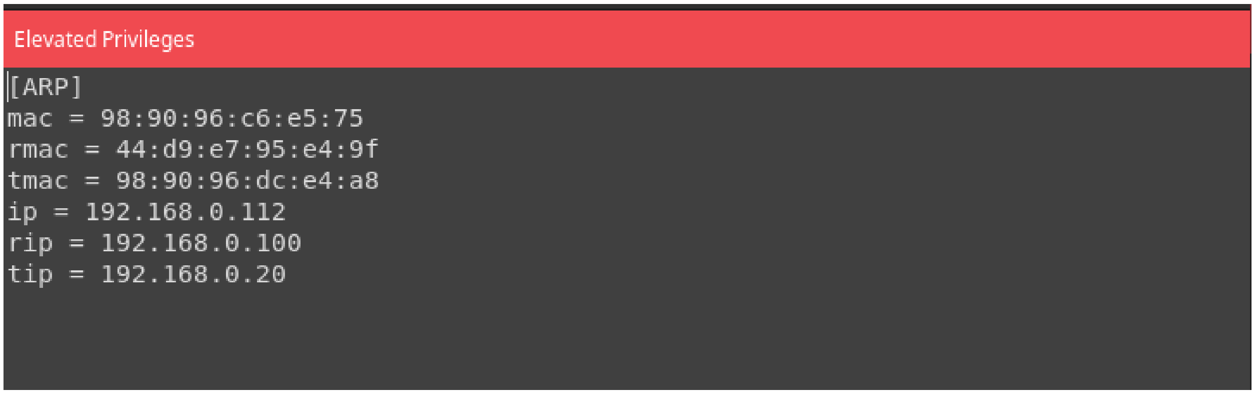
After running the DNS spoofing program the victim machine will now have his/her websites spoofed. If they were to type www.yahoo.com, it would lead their machine to your computer's IP.
*For better testing purposes, ensure you have httpd ready and running.*

## Testing

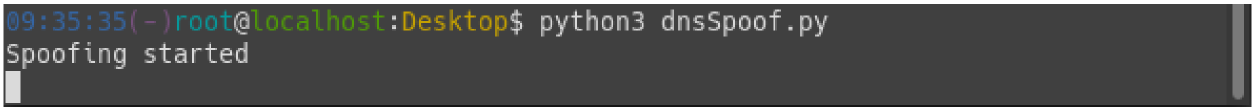
| Test # | Description | Expected Result | Result (Pass/Fail) |
|---|---|---|---|
| 1 | Navigate to source folder. Open the config file and enter in the correct information. Save the file and run the DNS spoofing program. | User can successfully run the DNS spoofing program, making requests from victim to our IP | Pass |
| 2 | Test for failure:<br>Attempt to run the DNS spoofing program with incorrect config file information (Incorrect MAC) | User should not be able to successfully DNS spoof the victim. | Pass |
| 3 | Run the DNS program with correct config file. Test with victim website going to nba.com | Target victim is spoofed to our IP’s website | Pass |
| 4 | Run the DNS program with correct config file. Test with victim website going to baidu.com | Target victim is spoofed to our IP’s website | Pass |
| 5 | Run the DNS program with correct config file. Test with victim machine by going to tianya.cn | Target victim is spoofed to our IP’s website | Pass |
| 6 | Run the DNS program with correct config file. Test with victim machine by going to tribunnews.com | Target victim is spoofed to our IP’s website | Pass |
| 7 | Run the DNS program with correct config file. Test with victim machine by going to sina.com.cn | Target victim is spoofed to our IP’s website | Pass |
| 8 | Run the DNS program with correct config file. Test with victim machine by going to soho.com | Target victim is spoofed to our IP’s website | Pass |
| 9 | Test for failure:<br>Attempt to run DNS spoofing without DNS spoofing running. | Victim machine should be able to go to their requested website with no redirection | Pass |

## Screenshots

### Test #1

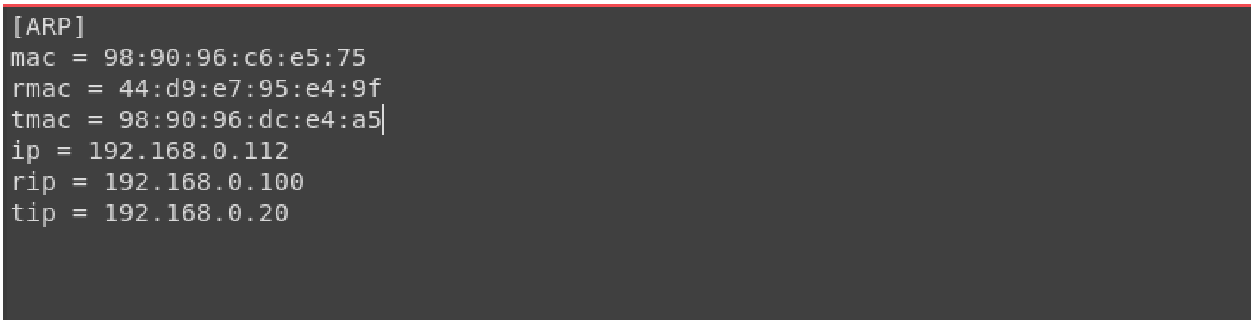


```
[ARP]
mac = 98:90:96:c6:e5:75
rmac = 44:d9:e7:95:e4:9f
tmac = 98:90:96:dc:e4:a8
ip = 192.168.0.112
rip = 192.168.0.100
tip = 192.168.0.20
```

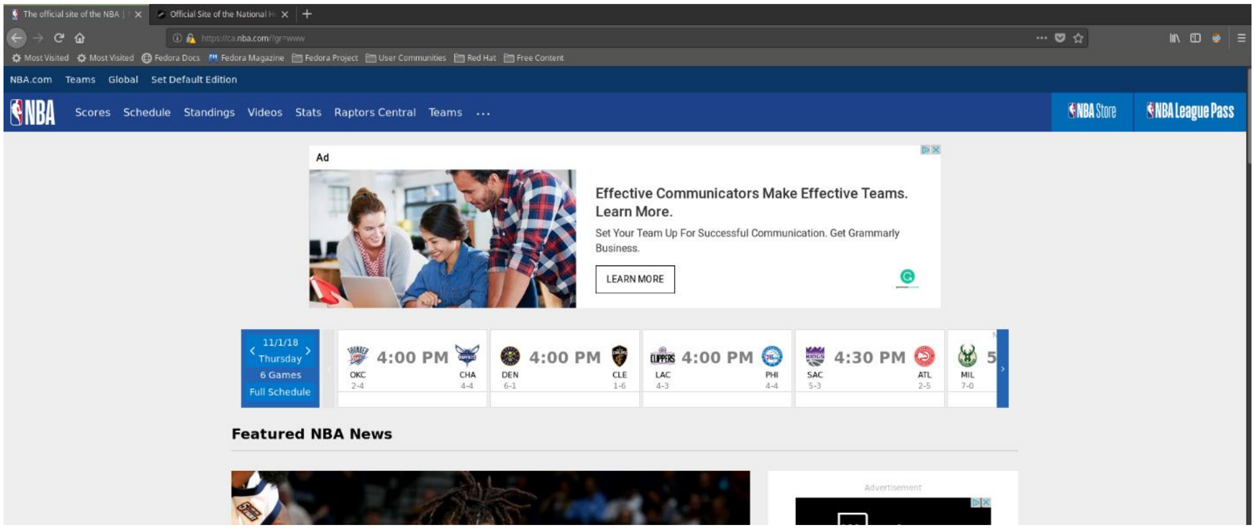


```
09:35:35(-)root@localhost:Desktop$ python3 dnsSpoof.py
Spoofing started
```

### Test #2



```
[ARP]
mac = 98:90:96:c6:e5:75
rmac = 44:d9:e7:95:e4:9f
tmac = 98:90:96:dc:e4:a5
ip = 192.168.0.112
rip = 192.168.0.100
tip = 192.168.0.20
```



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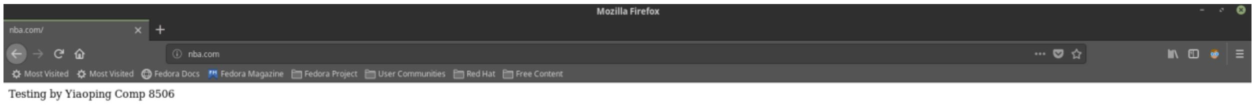
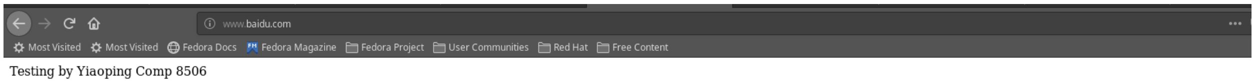
# Test #3



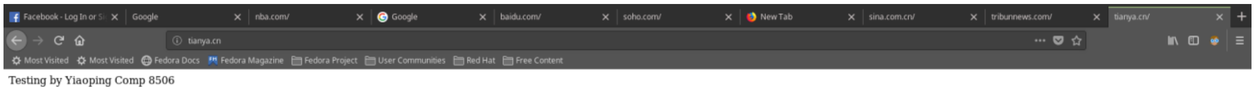
Testing by Yiaoping Comp 8506

# Test #4



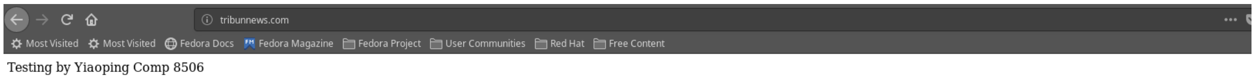
Testing by Yiaoping Comp 8506

# Test #5



Testing by Yiaoping Comp 8506

# Test #6



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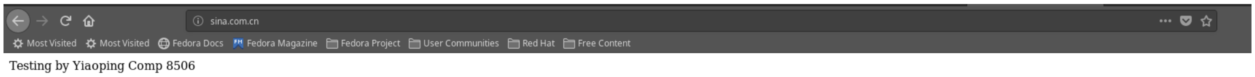
# Test #7



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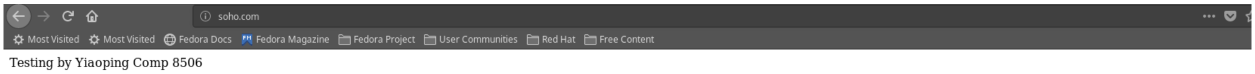
# Test #8



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