Lab 1

1.1 – MAC Address and IP Addresses

* Windows IP Configuration
* NordLynx Adapter – NordVPN
* Ethernet Adapter ‘Ethernet 2’ – Connection for VirtualBox
* Ethernet Adapter ‘Ethernet 3’ – TAP for NordVPN
* Wireless LAN Adapter
* Ethernet Adapater
* Teredo Tunneling Psuedo-Interface – Microsoft’s Tunneling Adapter

MAC: 70-85-C2-0C-2D-A3

IPv4: 192.168.1.117

IPv6: N/A

You would go about configuring an IP in *Windows* by opening Control Panel,

go to *Network and Sharing Center*,

click *Change Adapter Settings*

right click on the network adapter you are using, i.e. Ethernet or Wi-Fi,

click *Properties*,

click *Internet Protocol Version 4*,

click *Properties*,

click *Use the following IP address*,

type in an IP address following your current one’s layout i.e. 192.168.0.xxx or in my case *192.168.1.117*,

set your *Subnet mask* to the one you found under your adapter when typing ipconfig /all into cmd prompt, mine is *255.255.255.0*,

set your *default gateway* to the one found running the same command, mine is 192.168.1.1

2 – Ping

|  |  |  |
| --- | --- | --- |
| Localhost:  Address: **::1:** Ping: <1ms Min: 0ms Max: 0ms Avg: 0ms  No variation | mirror.aarnet.edu.au:  Address: **202.158.214.106** Min: 10ms Max: 11ms Avg: 10ms  Very little variation It is different because localhost is my local PC, and aarnet is a wireless server | ftp.springernature.com:  Request timed out |
| www.google.com:  Address: **172.217.167.100** Min: 6ms Max: 8ms Avg: 7ms | www.abc.net.au:  Address: **23.202.168.179** Min: 6ms Max: 6ms Avg: 6ms | ftp.itu.org:  Request timed out |

3 – Ping

|  |  |  |
| --- | --- | --- |
|  | mirror.aarnet.edu.au:  924ms 411ms 586ms  398ms  403ms 401ms 403ms 404ms 520ms 484ms  Average time: 493.35ms. | ftp.springernature.com:  1043ms  1005ms  1019ms  1010ms  1010ms  1005ms  1014ms  1016ms  1003ms  1047ms  Average time: 1017.2 |
| www.google.com:  416ms  395ms  293ms  287ms  460ms  274ms  307ms  341ms  345ms  386ms  Average time: 350.5ms. | www.abc.net.au:  8ms  4ms  4ms  4ms  3ms  3ms  4ms  3ms  3ms  3ms  Average time: 3.92ms. | ftp.itu.org:  Request timed out |

The difference between pinging on the website and through cmd prompt, is the location in which packets are being sent from.

|  |  |  |  |
| --- | --- | --- | --- |
| www.uow.edu.au | CNAME |  | 600 s |
| uoweduau-lb01-production.terminalfour.net | A | 3.105.191.57 | 600 s |
| uoweduau-lb01-production.terminalfour.net | A | 54.253.110.114 | 600 s |
| uoweduau-lb01-production.terminalfour.net | A | 3.105.213.81 | 600 s |