Lab Exercise 1: Tools of the Trade

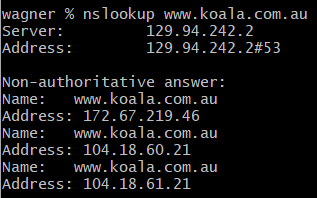
zid: z5228006 name: MINGLANG XIE

# Exercise 1: nslookup

1. The IP address of the website [www.koala.com.au](http://www.koala.com.au):

* 129.94.242.2#53
* 172.67.219.46
* 104.18.60.21
* 104.18.61.21

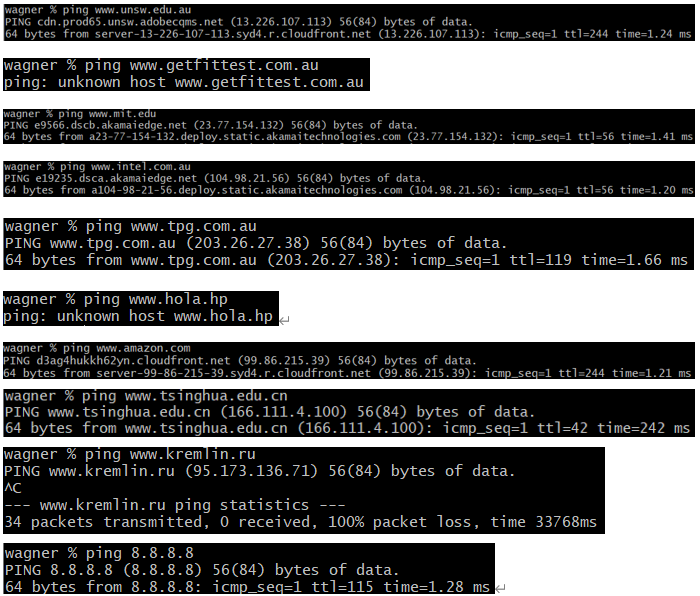
In my opinion,



2. The name of the IP address 127.0.0.1 is “the loopback address/localhost”. The address is used to establish an IP connection to the same machine or computer being used by the end-user.

#### Exercise 2: Use ping to test host reachability

|  |  |  |
| --- | --- | --- |
| host | reachable by ping | Reachable from the Web |
| www.unsw.edu.au | Yes | Yes |
| www.getfittest.com.au | No | No |
| www.mit.edu | Yes | Yes |
| www.intel.com.au | Yes | Yes |
| www.tpg.com.au | Yes | Yes |
| www.hola.hp | No | No |
| www.amazon.com | Yes | Yes |
| www.tsinghua.edu.cn | Yes | Yes |
| www.kremlin.ru | No | Yes |
| 8.8.8.8 | Yes | No |



#### Exercise 3: Use traceroute to understand network topology

#### There are 22 routers between my workstation and [www.columbia.edu](http://www.columbia.edu), there are 4 routers along the path are part of the UNSW network. Between et-1-3-0.pe1.sxt.bkvl.nsw.aarnet.net.au (113.197.15.149) and et-0-0-0.pe1.a.hnl.aarnet.net.au (113.197.15.99), the round-trip times from my machine to the routers change from 1.9ms to 95.1ms. which means it packets cross the Pacific Ocean. However, according to my research of the IP address, the router address change from Australia to America is between et-2-1-0.bdr1.a.sea.aarnet.net.au (113.197.15.201) and abilene-1-lo-jmb-706.sttlwa.pacificwave.net (207.231.240.8).

#### At the router IP address 138.44.5.0 the paths from your machine to these three destinations diverge.

#### Need to do

#### Exercise 4: Use ping to gain insights into network performance