

1) Outputs

Traceroute Online with Network Map Ta...						
Hop	IP / Host Name	ISP	Netblock	Country	Loss	Response
1	172.17.0.1				0.0%	0.15ms
2	10.206.5.139				0.0%	0.32ms
3	10.206.35.7				0.0%	0.49ms
4	10.206.32.1				0.0%	13.72ms
5	100-0-gw2.cj11.us.linode.com 173.255.239.102	AKAMAI-AP Akamai Technologies, Inc., SG	173.255.239.0/24		0.0%	4.60ms
6	ge31.r01.lga01.iem.netarch.akamai.com 23.203.156.16	AKAMAI-ASN1, NL	23.203.156.0/24		0.0%	2.06ms
7	ae-29.r01.nycmny17.us.bb.gin.ntt.net 140.174.21.217	NTT-LTD-2914, US	140.174.0.0/16		0.0%	3.25ms
8	ae-2.r21.nwrknj03.us.bb.gin.ntt.net 129.250.6.96	NTT-LTD-2914, US	129.250.0.0/16		0.0%	2.90ms
9	ae-3.r25.asbnva02.us.bb.gin.ntt.net 129.250.6.116	NTT-LTD-2914, US	129.250.0.0/16		0.0%	11.22ms
10	ae-1.r24.asbnva02.us.bb.gin.ntt.net 129.250.2.37	NTT-LTD-2914, US	129.250.0.0/16		0.0%	7.83ms
11	ae-1.r23.miamfl02.us.bb.gin.ntt.net 129.250.2.87	NTT-LTD-2914, US	129.250.0.0/16		0.0%	32.81ms
12	ae-1.a02.miamfl02.us.bb.gin.ntt.net 129.250.2.108	NTT-LTD-2914, US	129.250.0.0/16		0.0%	37.37ms
13	ce-2-0-2.a02.miamfl02.us.ce.gin.ntt.net 129.250.200.114	NTT-LTD-2914, US	129.250.0.0/16		0.0%	30.89ms
14	30.8.39.170.ampath.net 170.39.8.30	AMPATH, US	170.39.8.0/23		0.0%	30.92ms
15	187-185-103-190.ampath.net 190.183.185.187	AMPATH, US	190.103.184.0/22		0.0%	193.77ms
16	et-0-0-1-0-cpt7-pe1.net.tenet.ac.za 155.232.64.70	TENET-1, ZA	155.232.0.0/17		0.0%	192.44ms
17	154.114.124.1	TENET-1, ZA	154.114.0.0/17		0.0%	232.45ms
18	???					

This is the university of Cape Town

Hop	IP / Host Name	ISP	Netblock	Country	Loss	Response
1	172.17.0.1				0.0%	0.16ms
2	10.206.5.139				0.0%	0.35ms
3	10.206.35.8				0.0%	0.56ms
4	10.206.32.1				0.0%	8.18ms
5	100-0-gw1.cj11.us.linode.com 173.255.239.101	AKAMAI-AP Akamai Technologies, Inc., SG	173.255.239.0/24		0.0%	0.72ms
6	ae27.r01.ewr01.iem.netarch.akamai.com 23.203.154.22	AKAMAI-ASN1, NL	23.203.154.0/24		0.0%	1.21ms
7	ae0.r02.ewr01.iem.netarch.akamai.com 23.203.154.33	AKAMAI-ASN1, NL	23.203.154.0/24		0.0%	1.27ms
8	teng0-0-0-12.br02.ncy06.pccwbtn.net 63.218.223.29	BTN-ASN, US	63.218.222.0/23		0.0%	1.99ms
9	Bundle-Ether42.clbr02.sin02.pccwbtn.net 63.223.34.58	BTN-ASN, US	63.223.34.0/24		0.0%	263.38ms
10	63-218-107-202.static.pccwglobal.net 63.218.107.202	BTN-ASN, US	63.218.107.0/24		0.0%	248.90ms
11	163.139.136.28	VECTANT ARTERIA Networks Corporation, JP	163.139.0.0/16		0.0%	248.65ms
12	163.139.136.18	VECTANT ARTERIA Networks Corporation, JP	163.139.0.0/16		0.0%	250.51ms
13	163.139.136.69	VECTANT ARTERIA Networks Corporation, JP	163.139.0.0/16		0.0%	263.28ms
14	222.230.187.146	VECTANT ARTERIA Networks Corporation, JP	222.230.0.0/16		0.0%	263.19ms
15	???					

And The University of Tokyo

2) The first row is the number of routers. Between my computer and Cape town university: 17 routers, while with the University of Tokyo: 14

3)

#	IP address	Location
1	172.17.0.1	Astana, Kazakhstan
2	10.206.5.139	Astana, Kazakhstan
3	10.206.35.7	Astana, Kazakhstan
4	10.206.32.1	Astana, Kazakhstan
5	173.255.239.102	New Jersey, USA
6	23.203.156.16	New York, USA
7	140.174.21.217	New York, USA
8	129.250.6.96	New Jersey, USA
9	129.250.6.116	Virginia, USA

10	129.250.2.37	Virginia, USA
11	129.250.2.87	Florida, USA
12	129.250.2.108	Amsterdam, Netherlands
13	129.250.200.114	Florida, USA
14	170.39.8.30	Florida, USA
15	190.103.185.187	Florida, USA
16	155.232.64.70	Cape Town, South Africa
17	154.114.124.1	Mfuleni, Cape Town, South Africa
18	?	Request timed out

Tokyo:

#	IP Address	Location
1	172.17.0.1	Astana, Kazakhstan
2	10.206.5.139	Astana, Kazakhstan
3	10.206.35.8	Astana, Kazakhstan
4	10.206.32.1	Astana, Kazakhstan
5	173.255.239.101	New Jersey, USA
6	23.203.154.22	New Jersey, USA
7	23.203.154.33	New Jersey, USA
8	63.218.223.29	Nancy, France
9	63.223.34.58	Singapore, Singapore
10	63.218.107.202	Virginia, USA
11	163.139.136.28	Tokyo, Japan
12	163.139.136.18	Tokyo, Japan
13	163.139.136.69	Tokyo, Japan
14	222.230.187.146	Tokyo, Japan

15	?	Request timed out
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4. In the screenshots above, we can notice a delay time. This round-trip delay includes transmission delays, propagation delays, router processing delays, and queuing delays. The queuing delay varies with time, therefore round-trip delay of packets sent from one to another router can be longer than others. For example 14th and 15th routers in the example of South Africa, the route had a delay of 31 ms and in the 15th, the delay sharply changed to 194 ms.