

# JARINGAN KOMPUTER



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SISTEM KOMPUTER

FAKULTAS ILMU KOMPUTER

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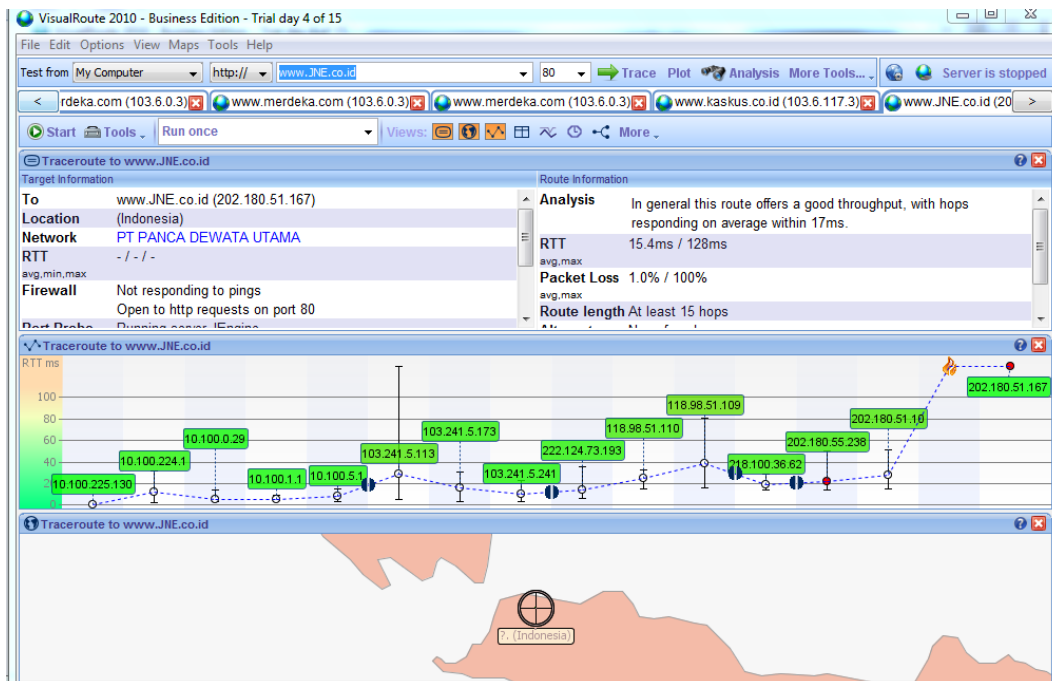
2016

# VISUAL ROUTE DAN VISUAL TRACERT

## Pengertian Traceroute

Traceroute (Tracert) adalah perintah untuk menunjukkan rute yang di lewati paket untuk mencapai tujuan. Ini dilakukan dengan mengirim pesan Internet Control Message Protocol (ICMP) Echo Request Ke tujuan dengan nilai Time to Live yang semakin meningkat. Rute yang ditampilkan adalah daftar interface router (yang paling dekat dengan host) yang terdapat pada jalur antara host dan tujuan.

## VISUAL ROUTE



Pada visual route dengan tujuan website [www.JNE.co.id](http://www.JNE.co.id) terdapat 15 hops untuk sampai ke pada tujuan alamat IP.

Hasil tracert diatas menunjukkan bahwa koneksi yang digunakan tidak stabil, dikarenakan terdapat terlihat 27 Hops (loncatan). Waktu dalam satuan ms (millisecond) sama seperti halnya Hops, semakin kecil waktu perpindahan data, maka akan semakin baik /cepat anda mengakses situs yang anda traceroute tadi. Tetapi jika anda melihat pada hasil tracert ada tanda \* atau pesan “request timed out” pada hasil tracert anda, maka disitulah masalah yang ada pada koneksi internet anda.

**menggunakan network-tools.com**

**10.100.225.130**

**TraceRoute from Network-Tools.com to 10.100.225.130**

```
C:\Windows\system32\cmd.exe
C:\Users\Acer>tracert www.JNE.co.id
Tracing route to jne.co.id [202.180.51.167]
over a maximum of 30 hops:
  0  9 ms    8 ms    6 ms    hotspot-id1.ilkom.unsri.ac.id [10.100.224.1]
  1  7 ms   114 ms   14 ms   29.subnet-10-100-0.ilkom.unsri.ac.id [10.100.0.2
91
  2  10 ms   9 ms    7 ms    10.100.1.1
  3  4 ms    6 ms    8 ms    10.100.5.1
  4  4 ms    5 ms    18 ms   host-103.241.5.113.unsri.ac.id [103.241.5.113]
  5  6 ms    7 ms    7 ms    noc-id1.unsri.ac.id [103.241.5.173]
  6  4 ms    3 ms    12 ms   ip-241-5.unsri.ac.id [103.241.5.241]
  7  11 ms   10 ms   21 ms   193.subnet222-124-73.p2p.telkon.net.id [222.124.
73.193]
  8  62 ms   30 ms   16 ms   110.subnet118-98-51.astinet.telkon.net.id [118.9
8.51.110]
  9  28 ms   17 ms   20 ms   109.subnet118-98-51.astinet.telkon.net.id [118.9
8.51.109]
 10  *        *        *        pancanet.openixp.net [218.180.36.62]
 11  *        *        *        202.180.55.238
 12  *        *        *        202.180.51.10
 13  *        *        *        Request timed out.
 14  *        *        *        Request timed out.
 15  *        *        *        Request timed out.
 16  *        *        *        Request timed out.
 17  *        *        *        Request timed out.
 18  *        *        *        Request timed out.
 19  *        *        *        Request timed out.
 20  *        *        *        Request timed out.
 21  *        *        *        Request timed out.
 22  *        *        *        Request timed out.
 23  *        *        *        Request timed out.
 24  *        *        *        Request timed out.
 25  *        *        *        Request timed out.
 26  *        *        *        Request timed out.
 27  *        *        *        Request timed out.
 28  *        *        *        Request timed out.
 29  *        *        *        Request timed out.
Acer-PC.hotspot-id1.ilkom.unsri.ac.id [10.100.225.130] reports: D
estination host unreachable.
Trace complete.
C:\Users\Acer>
```

**Hop(ms)      (ms)      (ms)      IP Address      Host name**

NetRange: 10.0.0.0 - 10.255.255.255  
CIDR: 10.0.0.0/8  
NetName: PRIVATE-ADDRESS-ABLK-RFC1918-IANA-RESERVED  
NetHandle: NET-10-0-0-0-1  
Parent: ()  
NetType: IANA Special Use  
OriginAS:  
Organization: Internet Assigned Numbers Authority (IANA)  
RegDate:  
Updated: 2013-08-30  
Ref: <https://whois.arin.net/rest/net/NET-10-0-0-0-1>

OrgName: Internet Assigned Numbers Authority  
OrgId: IANA  
Address: 12025 Waterfront Drive  
Address: Suite 300  
City: Los Angeles  
StateProv: CA  
PostalCode: 90292  
Country: US  
RegDate:  
Updated: 2012-08-31  
Ref: <https://whois.arin.net/rest/org/IANA>

OrgTechHandle: IANA-IP-ARIN  
OrgTechName: ICANN  
OrgTechPhone: +1-310-301-5820  
OrgTechEmail: [abuse@iana.org](mailto:abuse@iana.org)  
OrgTechRef: <https://whois.arin.net/rest/poc/IANA-IP-ARIN>

OrgAbuseHandle: IANA-IP-ARIN

OrgAbuseName: ICANN

OrgAbusePhone: +1-310-301-5820

OrgAbuseEmail: abuse@iana.org

OrgAbuseRef: <https://whois.arin.net/rest/poc/IANA-IP-ARIN>

## 10.100.224.1

### TraceRoute from Network-Tools.com to 10.100.224.1

Hop(ms)	(ms)	(ms)	IP Address	Host name
---------	------	------	------------	-----------

NetRange: 10.0.0.0 - 10.255.255.255

CIDR: 10.0.0.0/8

NetName: PRIVATE-ADDRESS-ABLK-RFC1918-IANA-RESERVED

NetHandle: NET-10-0-0-0-1

Parent: ()

NetType: IANA Special Use

OriginAS:

Organization: Internet Assigned Numbers Authority (IANA)

RegDate:

Updated: 2013-08-30

Comment: These addresses are in use by many millions of independently operated networks, which might be as small as a single computer connected to a home gateway, and are automatically configured in hundreds of millions of devices. They are only intended for use within a private context and traffic that needs to cross the Internet will need to use a different, unique address.

Comment:

Comment: These addresses can be used by anyone without any need to coordinate with IANA or an Internet registry. The traffic from these addresses does not come from ICANN or

IANA. We are not the source of activity you may see on logs or in e-mail records. Please refer to <http://www.iana.org/abuse/answers>

Comment:

Comment: These addresses were assigned by the IETF, the organization that develops Internet protocols, in the Best Current Practice document, RFC 1918 which can be found at:

Comment: <http://datatracker.ietf.org/doc/rfc1918>

Ref: <https://whois.arin.net/rest/net/NET-10-0-0-0-1>

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OrgId: IANA

Address: 12025 Waterfront Drive

Address: Suite 300

City: Los Angeles

StateProv: CA

PostalCode: 90292

Country: US

RegDate:

Updated: 2012-08-31

Ref: <https://whois.arin.net/rest/org/IANA>

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OrgTechName: ICANN

OrgTechPhone: +1-310-301-5820

OrgTechEmail: abuse@iana.org

OrgTechRef: <https://whois.arin.net/rest/poc/IANA-IP-ARIN>

## 10.100.0.29

### TraceRoute from Network-Tools.com to 10.100.0.29

Hop(ms)	(ms)	(ms)	IP Address	Host name
---------	------	------	------------	-----------

NetRange: 10.0.0.0 - 10.255.255.255

CIDR: 10.0.0.0/8

NetName: PRIVATE-ADDRESS-ABLK-RFC1918-IANA-RESERVED

NetHandle: NET-10-0-0-0-1

Parent: ()

NetType: IANA Special Use

OriginAS:

Organization: Internet Assigned Numbers Authority (IANA)

RegDate:

Updated: 2013-08-30

Ref: <https://whois.arin.net/rest/net/NET-10-0-0-0-1>

OrgName: Internet Assigned Numbers Authority

OrgId: IANA

Address: 12025 Waterfront Drive

Address: Suite 300

City: Los Angeles

StateProv: CA

PostalCode: 90292

Country: US

RegDate:

Updated: 2012-08-31

Ref: <https://whois.arin.net/rest/org/IANA>

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OrgTechName: ICANN  
OrgTechPhone: +1-310-301-5820  
OrgTechEmail: abuse@iana.org  
OrgTechRef: <https://whois.arin.net/rest/poc/IANA-IP-ARIN>

### **10.100.1.1**

#### **TraceRoute from Network-Tools.com to 10.100.1.1**

<b>Hop(ms)</b>	<b>(ms)</b>	<b>(ms)</b>	<b>IP Address</b>	<b>Host name</b>
----------------	-------------	-------------	-------------------	------------------

NetRange: 10.0.0.0 - 10.255.255.255  
CIDR: 10.0.0.0/8  
NetName: PRIVATE-ADDRESS-ABLK-RFC1918-IANA-RESERVED  
NetHandle: NET-10-0-0-0-1  
Parent: ()  
NetType: IANA Special Use  
OriginAS:  
Organization: Internet Assigned Numbers Authority (IANA)  
RegDate:  
Updated: 2013-08-30  
Ref: <https://whois.arin.net/rest/net/NET-10-0-0-0-1>



OrgName: Internet Assigned Numbers Authority  
OrgId: IANA  
Address: 12025 Waterfront Drive  
Address: Suite 300  
City: Los Angeles  
StateProv: CA  
PostalCode: 90292  
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OrgAbuseEmail: [abuse@iana.org](mailto:abuse@iana.org)  
OrgAbuseRef: <https://whois.arin.net/rest/poc/IANA-IP-ARIN>

### **10.100.5.1**

#### **TraceRoute from Network-Tools.com to 10.100.5.1**

<b>Hop(ms)</b>	<b>(ms)</b>	<b>(ms)</b>	<b>IP Address</b>	<b>Host name</b>
----------------	-------------	-------------	-------------------	------------------

NetRange: 10.0.0.0 - 10.255.255.255  
CIDR: 10.0.0.0/8  
NetName: PRIVATE-ADDRESS-ABLK-RFC1918-IANA-RESERVED  
NetHandle: NET-10-0-0-0-1  
Parent: ()  
NetType: IANA Special Use  
OriginAS:  
Organization: Internet Assigned Numbers Authority (IANA)  
RegDate:  
Updated: 2013-08-30  
Ref: <https://whois.arin.net/rest/net/NET-10-0-0-0-1>

OrgName: Internet Assigned Numbers Authority  
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PostalCode: 90292  
Country: US  
RegDate:  
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OrgTechEmail: [abuse@iana.org](mailto:abuse@iana.org)  
OrgTechRef: <https://whois.arin.net/rest/poc/IANA-IP-ARIN>

OrgAbuseHandle: IANA-IP-ARIN

OrgAbuseName: ICANN

OrgAbusePhone: +1-310-301-5820

OrgAbuseEmail: abuse@iana.org

OrgAbuseRef: <https://whois.arin.net/rest/poc/IANA-IP-ARIN>

### 103.241.5.113

#### TraceRoute from Network-Tools.com to 103.241.5.113 [host-103.241.5.113.unsri.ac.id]

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	1	206.123.64.233 -
2	1	1	1	173.219.246.92 173-219-246-92.suddenlink.net
3	326	311	384	173.219.225.56 173-219-225-56.suddenlink.net
4	1	1	1	38.140.104.225 be4714.ccr41.dfw03.atlas.cogentco.com
5	1	1	1	154.54.28.73 be2763.ccr21.dfw01.atlas.cogentco.com
6	6	6	6	154.54.41.65 be2441.ccr21.iah01.atlas.cogentco.com
7	45	45	45	154.54.29.222 be2927.ccr21.elp01.atlas.cogentco.com
8	45	45	45	154.54.42.65 be2929.ccr21.phx02.atlas.cogentco.com
9	45	45	45	154.54.44.86 be2931.ccr21.lax01.atlas.cogentco.com
10	37	37	37	154.54.44.78 be2964.ccr41.lax04.atlas.cogentco.com
11	208	225	207	38.104.83.210 -
12	218	218	220	180.240.192.73 -
13	227	209	225	180.240.193.234 -
14	215	211	210	222.124.73.197 197.subnet222-124-73.p2p.telkom.net.id
15	244	226	228	222.124.73.198 198.subnet222-124-73.p2p.telkom.net.id
16	227	227	227	103.241.5.244 r2-idl.unsri.ac.id
17	229	229	229	103.241.5.113 host-103.241.5.113.unsri.ac.id

Trace complete

### 103.241.5.173

**TraceRoute from Network-Tools.com to 103.241.5.173 [noc-idl.unsri.ac.id]**

<b>Hop(ms)</b>	<b>(ms)</b>	<b>(ms)</b>	<b>IP Address</b>	<b>Host name</b>
1	1	0	0	206.123.64.233 -
2	1	1	1	173.219.246.92 173-219-246-92.suddenlink.net
3	410	348	312	173.219.230.155 173-219-230-155.suddenlink.net
4	22	23	23	213.248.90.101 dls-bb1-link.telia.net
5	54	54	54	80.91.254.169 las-b21-link.telia.net
6	238	238	238	62.115.121.193 hnk-b2-link.telia.net
7	239	239	Timed out	62.115.56.150 telin-ic-313116-hnk-b2.c.telia.net
8	223	231	231	180.240.190.101 -
9	217	215	218	180.240.193.234 -
10	216	219	217	180.240.193.234 -
11	236	218	218	222.124.73.197 197.subnet222-124-73.p2p.telkom.net.id
12	234	235	235	103.241.5.173 noc-idl.unsri.ac.id

Trace complete

103.241.5.241

**TraceRoute from Network-Tools.com to 103.241.5.241 [ip-241-5.unsri.ac.id]**

<b>Hop(ms)</b>	<b>(ms)</b>	<b>(ms)</b>	<b>IP Address</b>	<b>Host name</b>
1	1	0	0	206.123.64.233 -
2	1	1	1	173.219.246.92 173-219-246-92.suddenlink.net
3	313	274	313	173.219.225.56 173-219-225-56.suddenlink.net
4	1	1	1	38.140.104.225 be4714.ccr41.dfw03.atlas.cogentco.com
5	1	1	1	154.54.47.213 be2764.ccr22.dfw01.atlas.cogentco.com
6	7	6	6	154.54.44.229 be2443.ccr22.iah01.atlas.cogentco.com
7	46	46	46	154.54.30.162 be2928.ccr21.elp01.atlas.cogentco.com
8	48	47	48	154.54.42.77 be2930.ccr22.phx02.atlas.cogentco.com
9	47	48	48	154.54.45.162 be2932.ccr22.lax01.atlas.cogentco.com
10	38	37	37	154.54.45.2 be2965.ccr41.lax04.atlas.cogentco.com

11	207	208	208	38.104.83.210	-
12	218	220	218	180.240.192.73	-
13	211	208	208	180.240.193.234	-
14	214	228	211	222.124.73.197	197.subnet222-124-73.p2p.telkom.net.id
15	229	246	228	103.241.5.241	ip-241-5.unsri.ac.id

Trace complete

222.124.73.193

**TraceRoute from Network-Tools.com to 222.124.73.193 [193.subnet222-124-73.p2p.telkom.net.id]**

Hop(ms)	(ms)	(ms)	IP Address	Host name	
1	1	0	0	206.123.64.221	-
2	Timed out	Timed out	Timed out		-
3	32	32	32	4.69.144.138	ae-3-80.edge1.losangeles9.level3.net
4	33	32	32	4.69.144.138	ae-3-80.edge1.losangeles9.level3.net
5	33	32	31	4.53.228.154	pt.telekomu.edge1.losangeles9.level3.net
6	210	210	210	180.240.192.37	-
7	217	219	218	61.94.117.129	-
8	Timed out	Timed out	Timed out		-
9	Timed out	Timed out	Timed out		-
10	Timed out	Timed out	Timed out		-
11	Timed out	Timed out	Timed out		-
12	Timed out	Timed out	Timed out		-
13	Timed	Timed	Timed		-

```

    out    out    out
  14  Timed  Timed  Timed    -
    out    out    out
  15  Timed  Timed  Timed    -
    out    out    out
  16  Timed  Timed  Timed    -
    out    out    out
  17  Timed  Timed  Timed    -
    out    out    out
  18  Timed  Timed  Timed    -
    out    out    out
  19  Timed  Timed  Timed    -
    out    out    out
  20  Timed  Timed  Timed    -
    out    out    out
  21  Timed  Timed  Timed    -
    out    out    out

```

Trace aborted.

118.98.51.110

**TraceRoute from Network-Tools.com to 118.98.51.110 [110.subnet118-98-51.astinet.telkom.net.id]**

Hop	(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	0	206.123.64.233	-
2	Timed out	Timed out	Timed out		-
3	32	32	32	4.69.144.138	ae-3-80.edge1.losangeles9.level3.net
4	32	32	32	4.69.144.138	ae-3-80.edge1.losangeles9.level3.net
5	117	63	32	4.53.228.154	pt.telekomu.edge1.losangeles9.level3.net
6	210	210	210	180.240.192.37	-

7	220	219	219	61.94.117.125	-
8	228	227	228	118.98.2.90	-
9	Timed out	Timed out	Timed out		-
10	Timed out	Timed out	Timed out		-
11	Timed out	Timed out	Timed out		-
12	Timed out	Timed out	Timed out		-
13	Timed out	Timed out	Timed out		-
14	Timed out	Timed out	Timed out		-
15	Timed out	Timed out	Timed out		-
16	Timed out	Timed out	Timed out		-
17	Timed out	Timed out	Timed out		-
18	Timed out	Timed out	Timed out		-
19	Timed out	Timed out	Timed out		-
20	Timed out	Timed out	Timed out		-
21	Timed out	Timed out	Timed out		-
22	Timed out	Timed out	Timed out		-

Trace aborted.

**118.98.51.109**

**TraceRoute from Network-Tools.com to 118.98.51.109 [109.subnet118-98-51.astinet.telkom.net.id]**

<b>Hop(ms)</b>	<b>(ms)</b>	<b>(ms)</b>	<b>IP Address</b>	<b>Host name</b>
1	0	0	0	206.123.64.233 -
2	Timed out	Timed out	Timed out	-
3	32	32	32	4.69.144.138 ae-3-80.edge1.losangeles9.level3.net
4	32	32	32	4.69.144.138 ae-3-80.edge1.losangeles9.level3.net
5	32	86	32	4.53.228.154 pt.telekomu.edge1.losangeles9.level3.net
6	210	210	210	180.240.192.37 -
7	218	219	219	61.94.117.125 -
8	228	228	228	118.98.2.90 -
9	Timed out	Timed out	Timed out	-
10	Timed out	Timed out	Timed out	-
11	Timed out	Timed out	Timed out	-
12	Timed out	Timed out	Timed out	-
13	Timed out	Timed out	Timed out	-
14	Timed out	Timed out	Timed out	-
15	Timed out	Timed out	Timed out	-
16	Timed out	Timed out	Timed out	-



17	Timed out	Timed out	Timed out	-
18	Timed out	Timed out	Timed out	-
19	Timed out	Timed out	Timed out	-
20	Timed out	Timed out	Timed out	-
21	Timed out	Timed out	Timed out	-
22	Timed out	Timed out	Timed out	-

Trace aborted.

## 218.100.36.62

TraceRoute from Network-Tools.com to 218.100.36.62 [pancanet.openixp.net]

Hop(ms)	(ms)	(ms)	IP Address	Host name
	Destination	Destination	Destination	
1	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
2	network unreachable	network unreachable	network unreachable	-
	Destination	Destination		
3	network unreachable	network unreachable	Timed out	-
	Timed	Timed	Timed	
4	out	out	out	-
	Timed	Timed	Timed	
5	out	out	out	-

```

        Destination Destination Destination
6 network    network    network          -
  unreachable unreachable unreachable
        Destination Destination Destination
7 network    network    network          -
  unreachable unreachable unreachable
        Destination Destination Destination
8 network    network    network          -
  unreachable unreachable unreachable
        Destination Destination Destination
9 network    network    network          -
  unreachable unreachable unreachable
10  Timed     Timed     Timed
   out       out       out                -
11  Timed     Timed     Timed
   out       out       out                -
12  Timed
   out       Destination Destination
          network    network          -
          unreachable unreachable
        Destination Destination Destination
13 network    network    network          -
  unreachable unreachable unreachable
        Destination Destination Destination
14 network    network    network          -
  unreachable unreachable unreachable

```

Trace aborted.

**202.180.55.238**

**TraceRoute from Network-Tools.com to 202.180.55.238**

<b>Hop(ms)</b>	<b>(ms)</b>	<b>(ms)</b>	<b>IP Address</b>	<b>Host name</b>
----------------	-------------	-------------	-------------------	------------------

1	1	0	0	206.123.64.233	-
2	1	1	1	129.250.202.253	xe-0-4-0-12.r01.dllstx04.us.bb.gin.ntt.net
3	1	1	1	129.250.6.128	ae-2.r23.dllstx09.us.bb.gin.ntt.net
4	39	39	39	129.250.4.154	ae-8.r23.snjsca04.us.bb.gin.ntt.net
5	37	39	39	129.250.2.182	ae-0.r22.snjsca04.us.bb.gin.ntt.net
6	216	298	213	129.250.3.49	ae-2.r20.sngpsi05.sg.bb.gin.ntt.net
7	220	220	221	129.250.3.147	ae-2.r00.sngpsi02.sg.bb.gin.ntt.net
8	225	225	225	116.51.27.70	-
9	240	240	239	103.23.182.150	-
10	224	224	224	202.180.55.226	-
11	225	225	225	202.180.55.238	-

Trace complete

## 202.180.51.10

### TraceRoute from Network-Tools.com to 202.180.51.10

Hop(ms)	(ms)	(ms)	IP Address	Host name	
1	1	0	0	206.123.64.221	-
2	3	2	1	129.250.202.253	xe-0-4-0-12.r01.dllstx04.us.bb.gin.ntt.net
3	1	1	1	129.250.6.128	ae-2.r23.dllstx09.us.bb.gin.ntt.net
4	39	39	39	129.250.4.154	ae-8.r23.snjsca04.us.bb.gin.ntt.net
5	38	38	43	129.250.2.182	ae-0.r22.snjsca04.us.bb.gin.ntt.net
6	209	209	209	129.250.3.49	ae-2.r20.sngpsi05.sg.bb.gin.ntt.net
7	216	216	216	129.250.3.147	ae-2.r00.sngpsi02.sg.bb.gin.ntt.net
8	221	221	221	116.51.27.70	-
9	235	299	235	103.23.182.150	-
10	220	220	220	202.180.55.226	-
11	221	221	221	202.180.55.238	-
12	223	222	224	202.180.51.10	-

Trace complete

## 202.180.51.167

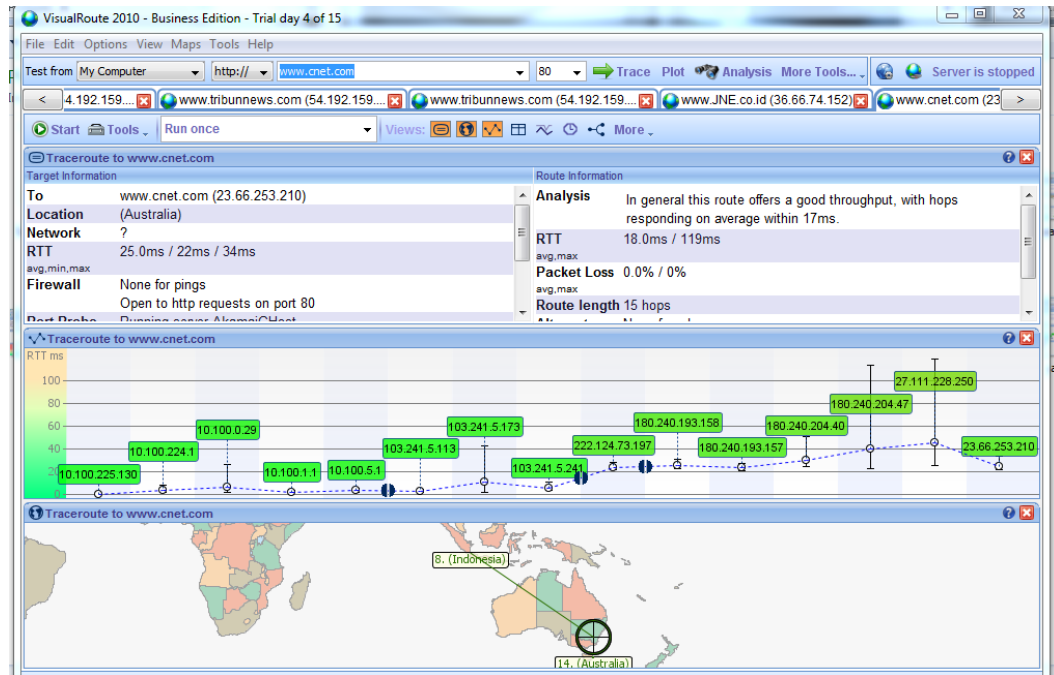
### TraceRoute from Network-Tools.com to 202.180.51.167 [ip-51-167.panca.net.id]

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	0	206.123.64.233 -
2	1	1	1	129.250.202.253 xe-0-4-0-12.r01.dllstx04.us.bb.gin.ntt.net
3	1	1	1	129.250.6.128 ae-2.r23.dllstx09.us.bb.gin.ntt.net
4	40	40	40	129.250.4.154 ae-8.r23.snjsca04.us.bb.gin.ntt.net
5	47	39	39	129.250.2.182 ae-0.r22.snjsca04.us.bb.gin.ntt.net
6	211	211	211	129.250.3.49 ae-2.r20.sngpsi05.sg.bb.gin.ntt.net
7	218	218	218	129.250.3.147 ae-2.r00.sngpsi02.sg.bb.gin.ntt.net
8	223	223	223	116.51.27.70 -
9	238	238	238	103.23.182.150 -
10	222	222	222	202.180.55.226 -
11	223	223	223	202.180.55.238 -
12	224	222	223	202.180.51.10 -
13	Timed out	Timed out	Timed out	-
14	Timed out	Timed out	Timed out	-
15	Timed out	Timed out	Timed out	-
16	Timed out	Timed out	Timed out	-
17	Timed out	Timed out	Timed out	-
18	Timed out	Timed out	Timed out	-
19	Timed out	Timed out	Timed out	-
20	Timed	Timed	Timed	-

	out	out	out	
21	Timed	Timed	Timed	-
	out	out	out	
22	Timed	Timed	Timed	-
	out	out	out	
23	Timed	Timed	Timed	-
	out	out	out	
24	Timed	Timed	Timed	-
	out	out	out	
25	Timed	Timed	Timed	-
	out	out	out	
26	Timed	Timed	Timed	-
	out	out	out	

Trace aborted.

## VISUAL ROUTE



Pada visual route dengan tujuan website [www.cnet.com](http://www.cnet.com) terdapat 15 hope untuk sampai ke pada tujuan alamat IP.

## VISUAL TRACERT

```
C:\Windows\system32\cmd.exe

C:\Users\Acer>tracert www.cnet.com

Tracing route to e5803.b.akamaiedge.net [23.66.253.210]
over a maximum of 30 hops:
  0  45 ms    9 ms    6 ms    hotspot-id1.ilkom.unsri.ac.id [10.100.224.1]
  1  4 ms     8 ms    5 ms    29.subnet-10-100-0.ilkom.unsri.ac.id [10.100.0.29]
  2  5 ms    10 ms   5 ms    10.100.1.1
  3  2 ms     6 ms    2 ms    10.100.5.1
  4  20 ms   27 ms   9 ms    host-103.241.5.113.unsri.ac.id [103.241.5.113]
  5  *        9 ms    3 ms    noc-id1.unsri.ac.id [103.241.5.173]
  6  5 ms    10 ms   7 ms    ip-241-5.unsri.ac.id [103.241.5.241]
  7  28 ms   22 ms   21 ms   197.subnet222-124-73.p2p.telkom.net.id [222.124.73.197]
  8  39 ms   *       180 ms  180.240.193.158
  9  28 ms   *       96 ms  180.240.193.157
 10  49 ms   54 ms   38 ms  180.240.204.40
 11  48 ms   49 ms   40 ms  180.240.204.47
 12  28 ms   38 ms   25 ms  20940.sgw.equinix.com [27.111.228.250]
 13  32 ms   47 ms   27 ms  a23-66-253-210.deploy.static.akamaitechnologies.com [23.66.253.210]

Trace complete.
```

```

C:\Windows\system32\cmd.exe
C:\Users\Acer>tracert -d www.cnet.com
Tracing route to e5803.b.akamaiedge.net [23.66.253.210]
over a maximum of 30 hops:
  0  8 ms    32 ms   12 ms   10.100.224.1
  1  27 ms   23 ms   32 ms   10.100.0.29
  2  14 ms    3 ms   44 ms   10.100.1.1
  3  18 ms   27 ms   21 ms   10.100.5.1
  4  29 ms    5 ms   23 ms   103.241.5.113
  5  68 ms   16 ms   13 ms   103.241.5.173
  6  6 ms     6 ms    7 ms   103.241.5.241
  7  94 ms   121 ms  124 ms  222.124.73.197
  8  105 ms  64 ms   41 ms   180.240.193.158
  9  65 ms  120 ms  69 ms   180.240.193.157
 10 137 ms  53 ms  101 ms  180.240.204.40
 11 72 ms   75 ms  102 ms  180.240.204.47
 12 65 ms   26 ms  81 ms   27.111.228.250
 13 236 ms  109 ms  76 ms   23.66.253.210
 14
Trace complete.
C:\Users\Acer>

```

Hasil tracert diatas menunjukkan bahwa koneksi yang digunakan cukup stabil, terlihat 14 Hops (loncatan). Waktu dalam satuan ms (millisecond) sama seperti halnya Hops, semakin kecil waktu perpindahan data, maka akan semakin baik /cepat anda mengakses situs yang anda traceroute tadi. Tetapi jika anda melihat pada hasil tracert ada tanda \* atau pesan “request timed out” pada hasil tracert anda, maka disitulah masalah yang ada pada koneksi internet anda.

**Pada network-tools.com**

Disini terdapat banyak terdapat “Request time out”, ini dikarekan ada paket data yang drop, dengan kata lain echo request atau reply hilang di tengah jalan. Jika jumlah paket yang hilang banyak sekali berarti ada masalah pada koneksi jaringan kita atau jaringan yang tidak stabil.

**10.100.225.130**

**TraceRoute from Network-Tools.com to 10.100.225.130**

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	Timed out	Timed out	Timed out	-
2	Timed out	Timed out	Timed out	-

3	Timed out	Timed out	Timed out	-
4	Timed out	Timed out	Timed out	-
5	Timed out	Timed out	Timed out	-
6	Timed out	Timed out	Timed out	-
7	Timed out	Timed out	Timed out	-
8	Timed out	Destination network unreachable	Destination network unreachable	-
9	Destination network unreachable	Destination network unreachable	Timed out	-
10	Timed out	Timed out	Timed out	-
11	Timed out	Timed out	Timed out	-
12	Timed out	Timed out	Timed out	-
13	Timed out	Timed out	Timed out	-
14	Timed out	Timed out	Timed out	-

Trace aborted.

**10.100.224.1**

**TraceRoute from Network-Tools.com to 10.100.224.1**



<b>Hop(ms)</b>	<b>(ms)</b>	<b>(ms)</b>	<b>IP Address</b>	<b>Host name</b>
1	Timed out	Timed out	Timed out	-
2	Timed out	Timed out	Timed out	-
3	Timed out	Timed out	Timed out	-
4	Timed out	Destination network unreachable	Destination network unreachable	-
5	Timed out	Timed out	Timed out	-
6	Timed out	Timed out	Timed out	-
7	Timed out	Timed out	Timed out	-
8	Timed out	Timed out	Timed out	-
9	Timed out	Timed out	Timed out	-
10	Timed out	Timed out	Timed out	-
11	Timed out	Timed out	Timed out	-
12	Destination network unreachable	Destination network unreachable	Destination network unreachable	-
13	Destination network unreachable	Destination network unreachable	Destination network unreachable	-
14	Destination	Timed	Timed	-

network out out  
unreachable

Trace aborted.

### 10.100.0.29

#### TraceRoute from Network-Tools.com to 10.100.0.29

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	Timed out	Timed out	Timed out	-
	Destination	Destination	Destination	
2	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
3	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
4	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
5	network unreachable	network unreachable	network unreachable	-
	Timed out	Timed out	Timed out	-
6	network unreachable	network unreachable	network unreachable	-
	Timed out	Timed out	Timed out	-
7	network unreachable	network unreachable	network unreachable	-
	Timed out	Destination	Destination	
8	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
9	network	network	network	-

```

unreachable unreachable unreachable
  Destination Destination Destination
10 network    network    network          -
   unreachable unreachable unreachable
     Destination Destination Destination
11 network    network    network          -
   unreachable unreachable unreachable
     Timed    Timed    Timed
12 out        out        out              -
     Timed    Timed    Timed
13 out        out        out              -
     Timed
14 out        network    network          -
           unreachable unreachable
Trace aborted.

```

### 10.100.1.1

#### TraceRoute from Network-Tools.com to 10.100.1.1

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	Timed out	Timed out	Timed out	-
	Destination	Destination	Destination	
2	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
3	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
4	network unreachable	network unreachable	network unreachable	-

	Destination	Destination	Destination	
5	network	network	network	-
	unreachable	unreachable	unreachable	
	Timed	Timed	Timed	
6	out	out	out	-
	Timed	Timed	Timed	
7	out	out	out	-
		Destination	Destination	
	Timed	network	network	
8	out	unreachable	unreachable	-
	Destination	Destination	Destination	
9	network	network	network	-
	unreachable	unreachable	unreachable	
	Destination	Destination	Destination	
10	network	network	network	-
	unreachable	unreachable	unreachable	
	Destination	Destination	Destination	
11	network	network	network	-
	unreachable	unreachable	unreachable	
	Destination	Timed	Timed	
12	network	out	out	-
	unreachable			
	Timed	Timed	Timed	
13	out	out	out	-
			Destination	
	Timed	Timed	network	
14	out	out	unreachable	-

Trace aborted.

### 10.100.5.1

**TraceRoute from Network-Tools.com to 10.100.5.1**

Hop(ms)	(ms)	(ms)	IP Address	Host name
	Destination	Destination	Destination	
1	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
2	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
3	network unreachable	network unreachable	network unreachable	-
	Destination	Timed out	Timed out	
4	network unreachable			-
	Timed out	Timed out	Timed out	
5				-
	Timed out	Timed out	Destination network unreachable	
6				-
	Destination	Destination	Destination	
7	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
8	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Destination	
9	network unreachable	network unreachable	network unreachable	-
	Destination	Destination	Timed out	
10	network unreachable	network unreachable		-

```

11   Timed   Timed   Timed
    out     out     out     -
12   Timed   Timed   Timed
    out     out     out     -
      Destination Destination Destination
13 network   network   network   -
      unreachable unreachable unreachable
      Destination Destination Destination
14 network   network   network   -
      unreachable unreachable unreachable

```

Trace aborted.

### 103.241.5.113

#### TraceRoute from Network-Tools.com to 103.241.5.113 [host-103.241.5.113.unsri.ac.id]

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	0	206.123.64.233 -
2	1	1	1	173.219.246.92 173-219-246-92.suddenlink.net
3	305	331	349	173.219.225.56 173-219-225-56.suddenlink.net
4	1	1	1	38.140.104.225 be4714.ccr41.dfw03.atlas.cogentco.com
5	1	1	1	154.54.28.73 be2763.ccr21.dfw01.atlas.cogentco.com
6	6	6	6	154.54.41.65 be2441.ccr21.iah01.atlas.cogentco.com
7	35	35	35	154.54.29.222 be2927.ccr21.elp01.atlas.cogentco.com
8	34	35	34	154.54.42.65 be2929.ccr21.phx02.atlas.cogentco.com
9	35	35	35	154.54.44.86 be2931.ccr21.lax01.atlas.cogentco.com
10	38	37	37	154.54.44.78 be2964.ccr41.lax04.atlas.cogentco.com
11	207	208	208	38.104.83.210 -
12	220	219	218	180.240.192.73 -
13	211	209	225	180.240.193.234 -
14	229	228	211	222.124.73.197 197.subnet222-124-73.p2p.telkom.net.id
15	226	226	226	222.124.73.198 198.subnet222-124-73.p2p.telkom.net.id

16	245	227	230	103.241.5.244	r2-idl.unsri.ac.id
17	229	229	229	103.241.5.113	host-103.241.5.113.unsri.ac.id

Trace complete

### 103.241.5.173

#### TraceRoute from Network-Tools.com to 103.241.5.173 [noc-idl.unsri.ac.id]

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	0	206.123.64.233 -
2	1	1	1	173.219.246.92 173-219-246-92.suddenlink.net
3	321	308	249	173.219.230.155 173-219-230-155.suddenlink.net
4	22	27	27	213.248.90.101 dls-bb1-link.telia.net
5	54	54	54	80.91.254.169 las-b21-link.telia.net
6	238	244	238	62.115.121.193 hnk-b2-link.telia.net
7	Timed out	Timed out	238	62.115.56.150 telin-ic-313116-hnk-b2.c.telia.net
8	230	218	217	180.240.190.81 -
9	220	218	220	180.240.190.117 -
10	220	218	221	222.124.73.197 197.subnet222-124-73.p2p.telkom.net.id
11	236	218	237	222.124.73.198 198.subnet222-124-73.p2p.telkom.net.id
12	237	237	234	222.124.73.198 198.subnet222-124-73.p2p.telkom.net.id
13	238	235	235	103.241.5.173 noc-idl.unsri.ac.id

Trace complete

### 103.241.5.241

#### TraceRoute from Network-Tools.com to 103.241.5.241 [ip-241-5.unsri.ac.id]

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	0	206.123.64.233 -
2	1	1	1	173.219.246.92 173-219-246-92.suddenlink.net
3	323	324	334	173.219.225.56 173-219-225-56.suddenlink.net

4	1	1	1	38.140.104.225	be4714.ccr41.dfw03.atlas.cogentco.com
5	1	1	1	154.54.47.213	be2764.ccr22.dfw01.atlas.cogentco.com
6	6	6	6	154.54.44.229	be2443.ccr22.iah01.atlas.cogentco.com
7	34	35	35	154.54.30.162	be2928.ccr21.elp01.atlas.cogentco.com
8	35	34	34	154.54.42.77	be2930.ccr22.phx02.atlas.cogentco.com
9	35	35	34	154.54.45.162	be2932.ccr22.lax01.atlas.cogentco.com
10	37	37	38	154.54.45.2	be2965.ccr41.lax04.atlas.cogentco.com
11	208	208	208	38.104.83.210	-
12	224	218	218	180.240.192.73	-
13	209	207	208	180.240.193.234	-
14	212	210	212	222.124.73.197	197.subnet222-124-73.p2p.telkom.net.id
15	228	246	229	103.241.5.241	ip-241-5.unsri.ac.id

Trace complete

### 222.124.73.197

**TraceRoute from Network-Tools.com to 222.124.73.197 [197.subnet222-124-73.p2p.telkom.net.id]**

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	206.123.64.221	-
2	315	106	4.15.32.133	lag-127.ear1.dallas1.level3.net
3	32	32	4.69.144.202	ae-4-90.edge1.losangeles9.level3.net
4	32	32	4.69.144.202	ae-4-90.edge1.losangeles9.level3.net
5	32	31	4.53.228.154	pt.telekomu.edge1.losangeles9.level3.net
6	210	229	180.240.192.37	-
7	219	219	61.94.117.129	-
8	227	227	118.98.2.90	-
9	Timed out	Timed out	Timed out	-
10	Timed out	Timed out	Timed out	-



11	232	232	232	222.124.73.198	198.subnet222-124-73.p2p.telkom.net.id
12	231	232	232	222.124.73.197	197.subnet222-124-73.p2p.telkom.net.id

Trace complete

### 180.240.193.158

Lookup failed: 180.240.193.158 No data  
180.240.193.158 is from Singapore (SG) in region Southern and Eastern Asia

### TraceRoute from Network-Tools.com to 180.240.193.158

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	0	206.123.64.221 -
2	1	1	1	129.250.202.253 xe-0-4-0-12.r01.dllstx04.us.bb.gin.ntt.net
3	1	1	1	129.250.6.128 ae-2.r23.dllstx09.us.bb.gin.ntt.net
4	39	39	39	129.250.4.154 ae-8.r23.snjsca04.us.bb.gin.ntt.net
5	37	37	37	129.250.2.182 ae-0.r22.snjsca04.us.bb.gin.ntt.net
6	212	212	219	129.250.3.49 ae-2.r20.sngpsi05.sg.bb.gin.ntt.net
7	219	219	219	129.250.3.147 ae-2.r00.sngpsi02.sg.bb.gin.ntt.net
8	224	248	223	116.51.17.226 xe-0-1-0-4.r00.sngpsi02.sg.ce.gin.ntt.net
9	213	221	213	180.240.204.54 -
10	221	212	212	180.240.204.54 -
11	209	209	209	180.240.193.158 -

Trace complete

### 180.240.193.157

### TraceRoute from Network-Tools.com to 180.240.193.157

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	0	206.123.64.221 -
2	1	1	1	129.250.202.253 xe-0-4-0-12.r01.dllstx04.us.bb.gin.ntt.net
3	1	1	1	129.250.6.128 ae-2.r23.dllstx09.us.bb.gin.ntt.net

4	39	39	39	129.250.4.154	ae-8.r23.snjsca04.us.bb.gin.ntt.net
5	39	37	38	129.250.2.182	ae-0.r22.snjsca04.us.bb.gin.ntt.net
6	213	213	213	129.250.3.49	ae-2.r20.sngpsi05.sg.bb.gin.ntt.net
7	220	220	221	129.250.3.147	ae-2.r00.sngpsi02.sg.bb.gin.ntt.net
8	225	225	224	116.51.26.34	-
9	227	221	223	180.240.193.157	-

Trace complete

### 180.240.204.40

#### TraceRoute from Network-Tools.com to 180.240.204.40

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	24	0	0	206.123.64.233 -
2	1	1	1	129.250.202.253 xe-0-4-0-12.r01.dllstx04.us.bb.gin.ntt.net
3	2	2	1	129.250.6.128 ae-2.r23.dllstx09.us.bb.gin.ntt.net
4	39	39	39	129.250.4.154 ae-8.r23.snjsca04.us.bb.gin.ntt.net
5	37	39	37	129.250.2.182 ae-0.r22.snjsca04.us.bb.gin.ntt.net
6	224	224	224	129.250.3.49 ae-2.r20.sngpsi05.sg.bb.gin.ntt.net
7	231	231	231	129.250.3.147 ae-2.r00.sngpsi02.sg.bb.gin.ntt.net
8	236	236	236	116.51.26.34 -
9	219	220	219	180.240.204.40 -

Trace complete

### 180.240.204.47

#### TraceRoute from Network-Tools.com to 180.240.204.47

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	0	206.123.64.233 -
2	1	1	1	129.250.202.253 xe-0-4-0-12.r01.dllstx04.us.bb.gin.ntt.net
3	1	1	1	129.250.6.128 ae-2.r23.dllstx09.us.bb.gin.ntt.net
4	40	40	40	129.250.4.154 ae-8.r23.snjsca04.us.bb.gin.ntt.net

5	39	39	39	129.250.2.182	ae-0.r22.snjsca04.us.bb.gin.ntt.net
6	213	213	213	129.250.3.49	ae-2.r20.sngpsi05.sg.bb.gin.ntt.net
7	221	221	220	129.250.3.147	ae-2.r00.sngpsi02.sg.bb.gin.ntt.net
8	225	225	241	180.240.204.47	-

Trace complete

## 27.111.228.250

### TraceRoute from Network-Tools.com to 27.111.228.250 [20940.sgw.equinix.com]

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	Timed out	Destination network unreachable	Destination network unreachable	-
2	network unreachable	Destination network unreachable	Destination network unreachable	-
3	network unreachable	Destination network unreachable	Destination network unreachable	-
4	network unreachable	Destination network unreachable	Destination network unreachable	-
5	network unreachable	Timed out	Timed out	-
6	Timed out	Timed out	Timed out	-
7	Timed out	Timed out	Destination network unreachable	-
8	Destination	Destination	Destination	-

```

network    network    network
unreachable unreachable unreachable
  Destination Destination Destination
9 network    network    network    -
unreachable unreachable unreachable
  Destination Destination Destination
10 network    network    network    -
unreachable unreachable unreachable
  Destination Destination
   Timed
11 network    network    out    -
unreachable unreachable
  Timed Timed Timed
12 out    out    out    -
  Timed Timed Timed
13 out    out    out    -
  Destination Destination Destination
14 network    network    network    -
unreachable unreachable unreachable
Trace aborted.

```

### 23.66.253.210

**TraceRoute from Network-Tools.com to 23.66.253.210 [a23-66-253-210.deploy.static.akamaitechnologies.com]**

Hop(ms)	(ms)	(ms)	IP Address	Host name
1	1	0	0	206.123.64.233 -
2	0	0	0	206.123.64.45 -
3	0	1	0	64.124.196.225 xe-4-2-0.er2.dfw2.us.above.net
4	1	1	1	64.125.20.233 ae7.cr2.dfw2.us.zip.zayo.com
5	27	27	27	64.125.30.182 ae27.cs2.dfw2.us.eth.zayo.com
6	31	27	94	64.125.29.21 ae3.cs2.lax112.us.eth.zayo.com

7	39	38	38	64.125.30.187	ae27.cr2.lax112.us.zip.zayo.com
8	Timed out	Timed out	Timed out		-
9	28	27	27	203.208.151.100	-
10	28	27	28	203.208.171.117	-
11	199	211	199	203.208.173.161	-
12	208	190	200	203.208.171.198	-
13	210	214	197	203.208.171.201	-
					a23-66-253-
14	194	189	199	23.66.253.210	210.deploy.static.akamaitechnologies.com

Trace complete