

Traceroute

www.youtube.com

DAY1

saijoshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com

traceroute: Warning: www.youtube.com has multiple addresses; using 142.250.190.14

traceroute to youtube-ui.l.google.com (142.250.190.14), 64 hops max, 52 byte packets

```
1 10.0.0.1 (10.0.0.1) 7.774 ms 5.087 ms 5.625 ms
2 96.120.42.5 (96.120.42.5) 18.532 ms 18.409 ms 19.575 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 20.317 ms 13.629 ms 17.318 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 14.936 ms 14.468 ms 13.433 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 22.180 ms 26.815 ms 18.166 ms
6 be-32141-cs24.350ecermak.il.ibone.comcast.net (96.110.42.189) 30.490 ms *
  be-32131-cs23.350ecermak.il.ibone.comcast.net (96.110.42.185) 25.714 ms
7 be-2311-pe11.350ecermak.il.ibone.comcast.net (96.110.33.202) 20.874 ms
  be-2204-pe04.350ecermak.il.ibone.comcast.net (96.110.37.38) 22.434 ms
  be-2213-pe13.350ecermak.il.ibone.comcast.net (96.110.32.90) 20.193 ms
8 75.149.231.238 (75.149.231.238) 26.327 ms
  75.149.230.26 (75.149.230.26) 21.954 ms
  75.149.231.2 (75.149.231.2) 27.774 ms
9 * * *
10 142.251.60.202 (142.251.60.202) 25.001 ms
   142.251.60.208 (142.251.60.208) 26.948 ms
   142.251.60.14 (142.251.60.14) 26.264 ms
11 142.251.61.41 (142.251.61.41) 20.031 ms 25.282 ms
   108.170.243.175 (108.170.243.175) 21.994 ms
12 ord37s32-in-f14.1e100.net (142.250.190.14) 23.591 ms
   72.14.233.10 (72.14.233.10) 23.897 ms 23.895 ms
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saijoshithakathari@Sais-MacBook-Air documents % traceroute 142.250.190.14

traceroute to 142.250.190.14 (142.250.190.14), 64 hops max, 52 byte packets

```
1 10.0.0.1 (10.0.0.1) 12.910 ms 7.123 ms 5.292 ms
2 96.120.42.5 (96.120.42.5) 15.452 ms 14.361 ms 12.970 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 21.908 ms 16.237 ms 21.950 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 14.292 ms 16.792 ms 15.000 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 33.758 ms 15.553 ms 15.858 ms
6 * be-32141-cs24.350ecermak.il.ibone.comcast.net (96.110.42.189) 35.996 ms
  be-32131-cs23.350ecermak.il.ibone.comcast.net (96.110.42.185) 22.242 ms
7 be-2103-pe03.350ecermak.il.ibone.comcast.net (96.110.37.18) 21.730 ms
  be-2304-pe04.350ecermak.il.ibone.comcast.net (96.110.37.42) 35.549 ms
  be-2104-pe04.350ecermak.il.ibone.comcast.net (96.110.37.34) 24.350 ms
8 66.208.233.218 (66.208.233.218) 26.206 ms
  50.208.235.178 (50.208.235.178) 21.564 ms
  75.149.229.142 (75.149.229.142) 22.646 ms
9 * * *
10 142.251.60.212 (142.251.60.212) 36.731 ms
   142.251.60.208 (142.251.60.208) 22.580 ms
   74.125.251.46 (74.125.251.46) 28.483 ms
11 142.251.61.41 (142.251.61.41) 22.913 ms
   108.170.243.197 (108.170.243.197) 27.659 ms
   142.251.61.41 (142.251.61.41) 22.969 ms
12 209.85.250.144 (209.85.250.144) 21.331 ms
```

```

ord37s32-in-f14.1e100.net (142.250.190.14) 29.978 ms 20.983 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com
traceroute: Warning: www.youtube.com has multiple addresses; using 142.250.190.14
traceroute to youtube-ui.l.google.com (142.250.190.14), 64 hops max, 52 byte packets
 1 10.0.0.1 (10.0.0.1) 5.893 ms 4.827 ms 5.621 ms
 2 96.120.42.5 (96.120.42.5) 18.691 ms 15.222 ms 17.373 ms
 3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 16.458 ms 18.348 ms 16.497 ms
 4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 16.999 ms 20.113 ms 12.177 ms
 5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 17.089 ms 20.219 ms 16.846 ms
 6 be-32141-cs24.350ecermak.il.ibone.comcast.net (96.110.42.189) 26.353 ms
   be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181) 22.035 ms *
 7 be-2411-pe11.350ecermak.il.ibone.comcast.net (96.110.33.206) 37.276 ms
   be-2203-pe03.350ecermak.il.ibone.comcast.net (96.110.37.22) 25.088 ms
   be-2103-pe03.350ecermak.il.ibone.comcast.net (96.110.37.18) 20.452 ms
 8 66.208.233.218 (66.208.233.218) 28.631 ms
   75.149.230.26 (75.149.230.26) 23.939 ms
   66.208.233.218 (66.208.233.218) 25.466 ms
 9 * * *
10 142.251.60.214 (142.251.60.214) 28.346 ms
   142.251.60.212 (142.251.60.212) 24.524 ms
   142.251.60.10 (142.251.60.10) 21.873 ms
11 108.170.243.219 (108.170.243.219) 24.392 ms
   142.251.61.41 (142.251.61.41) 29.234 ms
   108.170.243.197 (108.170.243.197) 22.560 ms
12 142.251.234.73 (142.251.234.73) 22.937 ms
   142.251.234.163 (142.251.234.163) 21.835 ms 59.755 ms
13 ord37s32-in-f14.1e100.net (142.250.190.14) 19.721 ms
   142.251.234.66 (142.251.234.66) 24.842 ms
   ord37s32-in-f14.1e100.net (142.250.190.14) 22.281 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute 142.250.190.14
traceroute to 142.250.190.14 (142.250.190.14), 64 hops max, 52 byte packets
 1 10.0.0.1 (10.0.0.1) 21.107 ms 14.315 ms 5.235 ms
 2 96.120.42.5 (96.120.42.5) 19.393 ms 17.873 ms 14.432 ms
 3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 17.074 ms 14.241 ms 12.139 ms
 4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 20.687 ms 14.503 ms 22.301 ms
 5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 34.446 ms 19.030 ms 15.060 ms
 6 be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181) 26.059 ms
   be-32141-cs24.350ecermak.il.ibone.comcast.net (96.110.42.189) 22.422 ms *
 7 be-2203-pe03.350ecermak.il.ibone.comcast.net (96.110.37.22) 23.364 ms
   be-2411-pe11.350ecermak.il.ibone.comcast.net (96.110.33.206) 22.502 ms
   be-2213-pe13.350ecermak.il.ibone.comcast.net (96.110.32.90) 24.436 ms
 8 50.208.235.174 (50.208.235.174) 25.429 ms
   96.87.9.226-static.hfc.comcastbusiness.net (96.87.9.226) 30.511 ms
   50.208.235.170 (50.208.235.170) 22.243 ms
 9 * * *
10 142.251.60.206 (142.251.60.206) 32.513 ms
   108.170.243.174 (108.170.243.174) 28.060 ms 24.099 ms
11 209.85.247.117 (209.85.247.117) 20.657 ms
   108.170.243.165 (108.170.243.165) 20.908 ms
   142.251.61.41 (142.251.61.41) 23.893 ms
12 ord37s32-in-f14.1e100.net (142.250.190.14) 21.704 ms

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209.85.241.124 (209.85.241.124) 25.186 ms
142.251.234.159 (142.251.234.159) 27.884 ms

AUTONOMOUS SYSTEM NUMBER OR ISP FOR EACH ROUTER:

Output:

saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 96.110.33.202
NetRange: 96.64.0.0 - 96.124.255.255
CIDR: 96.64.0.0/11, 96.96.0.0/12, 96.120.0.0/14, 96.112.0.0/13, 96.124.0.0/16
NetName: CABLE-1
NetHandle: NET-96-64-0-0-1
Parent: NET96 (NET-96-0-0-0-0)
NetType: Direct Allocation
OriginAS: AS7922
Organization: Comcast Cable Communications, LLC (CCCS)
RegDate: 2008-02-21
Updated: 2021-01-25
Ref: <https://rdap.arin.net/registry/ip/96.64.0.0>
OrgName: Comcast Cable Communications, LLC
OrgId: CCCS
Address: 1800 Bishops Gate Blvd
City: Mt Laurel
StateProv: NJ
PostalCode: 08054
Country: US
RegDate: 2001-09-18
Updated: 2020-11-18
Ref: <https://rdap.arin.net/registry/entity/CCCS>
OrgRoutingHandle: ROUTI25-ARIN
OrgRoutingName: Routing
OrgRoutingPhone: +1-856-792-2300
OrgRoutingEmail: routing@comcast.com
OrgRoutingRef: <https://rdap.arin.net/registry/entity/ROUTI25-ARIN>
OrgAbuseHandle: NAPO-ARIN
OrgAbuseName: Network Abuse and Policy Observance
OrgAbusePhone: +1-888-565-4329
OrgAbuseEmail: abuse@comcast.net
OrgAbuseRef: <https://rdap.arin.net/registry/entity/NAPO-ARIN>
OrgTechHandle: IC161-ARIN
OrgTechName: Comcast Cable Communications Inc
OrgTechPhone: +1-856-792-2300
OrgTechEmail: CNIPEO-lp-registration@cable.comcast.com
OrgTechRef: <https://rdap.arin.net/registry/entity/IC161-ARIN>
saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 142.250.190.14
NetRange: 142.250.0.0 - 142.251.255.255
CIDR: 142.250.0.0/15
NetName: GOOGLE
NetHandle: NET-142-250-0-0-1
Parent: NET142 (NET-142-0-0-0-0)
NetType: Direct Allocation
OriginAS: AS15169
Organization: Google LLC (GOGL)
RegDate: 2012-05-24
Updated: 2012-05-24
Ref: <https://rdap.arin.net/registry/ip/142.250.0.0>

OrgName: Google LLC
OrgId: GOGL
Address: 1600 Amphitheatre Parkway
City: Mountain View
StateProv: CA
PostalCode: 94043
Country: US
RegDate: 2000-03-30
Updated: 2019-10-31
Comment: Please note that the recommended way to file abuse complaints are located in the following links.
Comment:
Comment: To report abuse and illegal activity: <https://www.google.com/contact/>
Comment:
Comment: For legal requests: <http://support.google.com/legal>
Comment:
Comment: Regards,
Comment: The Google Team
Ref: <https://rdap.arin.net/registry/entity/GOGL>
OrgTechHandle: ZG39-ARIN
OrgTechName: Google LLC
OrgTechPhone: +1-650-253-0000
OrgTechEmail: arin-contact@google.com
OrgTechRef: <https://rdap.arin.net/registry/entity/ZG39-ARIN>
OrgAbuseHandle: ABUSE5250-ARIN
OrgAbuseName: Abuse
OrgAbusePhone: +1-650-253-0000
OrgAbuseEmail: network-abuse@google.com
OrgAbuseRef: <https://rdap.arin.net/registry/entity/ABUSE5250-ARIN>

saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 10.0.0.1

NetRange: 10.0.0.0 - 10.255.255.255
CIDR: 10.0.0.0/8
NetName: PRIVATE-ADDRESS-ABLK-RFC1918-IANA-RESERVED
NetHandle: NET-10-0-0-1
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://rdap.arin.net/registry/ip/10.0.0.0>
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://rdap.arin.net/registry/entity/IANA>
OrgTechHandle: IANA-IP-ARIN
OrgTechName: ICANN
OrgTechPhone: +1-310-301-5820
OrgTechEmail: abuse@iana.org
OrgTechRef: <https://rdap.arin.net/registry/entity/IANA-IP-ARIN>
OrgAbuseHandle: IANA-IP-ARIN
OrgAbuseName: ICANN
OrgAbusePhone: +1-310-301-5820
OrgAbuseEmail: abuse@iana.org
OrgAbuseRef: <https://rdap.arin.net/registry/entity/IANA-IP-ARIN>

DAY2

saijoshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com
traceroute: Warning: www.youtube.com has multiple addresses; using 172.217.2.46
traceroute to youtube-ui.l.google.com (172.217.2.46), 64 hops max, 52 byte packets

```
1 10.0.0.1 (10.0.0.1) 22.090 ms 4.403 ms 4.853 ms
2 96.120.42.5 (96.120.42.5) 18.831 ms 15.089 ms 10.111 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 16.859 ms 15.732 ms 16.042 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 22.309 ms 17.476 ms 23.453 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 30.063 ms 15.456 ms 17.887 ms
6 * * be-32111-cs21.350ecermak.il.ibone.comcast.net (96.110.42.177) 31.231 ms
7 be-2113-pe13.350ecermak.il.ibone.comcast.net (96.110.32.86) 20.250 ms
  be-2211-pe11.350ecermak.il.ibone.comcast.net (96.110.33.198) 26.589 ms
  be-2413-pe13.350ecermak.il.ibone.comcast.net (96.110.32.98) 25.064 ms
8 75.149.230.26 (75.149.230.26) 20.083 ms
  66.208.233.218 (66.208.233.218) 21.217 ms
  50.208.235.170 (50.208.235.170) 22.657 ms
9 * * *
10 142.251.60.212 (142.251.60.212) 27.599 ms
    142.251.60.214 (142.251.60.214) 19.907 ms
    atl14s78-in-f14.1e100.net (172.217.2.46) 19.910 ms
```

saijoshithakathari@Sais-MacBook-Air documents % traceroute 172.217.2.46
traceroute to 172.217.2.46 (172.217.2.46), 64 hops max, 52 byte packets

```
1 10.0.0.1 (10.0.0.1) 7.859 ms 6.904 ms 5.394 ms
2 96.120.42.5 (96.120.42.5) 27.280 ms 15.198 ms 19.274 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 16.757 ms 14.251 ms 22.340 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 20.445 ms 17.579 ms 12.401 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 22.715 ms 19.567 ms 21.211 ms
6 be-32111-cs21.350ecermak.il.ibone.comcast.net (96.110.42.177) 23.850 ms
  be-32141-cs24.350ecermak.il.ibone.comcast.net (96.110.42.189) 38.367 ms 22.230 ms
7 be-2203-pe03.350ecermak.il.ibone.comcast.net (96.110.37.22) 20.413 ms
  be-2213-pe13.350ecermak.il.ibone.comcast.net (96.110.32.90) 21.996 ms
  be-2204-pe04.350ecermak.il.ibone.comcast.net (96.110.37.38) 33.048 ms
```

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8 50.208.235.170 (50.208.235.170) 20.625 ms
  96-87-9-226-static.hfc.comcastbusiness.net (96.87.9.226) 24.866 ms
  66.208.233.90 (66.208.233.90) 20.936 ms
9 * * *
10 108.170.243.174 (108.170.243.174) 31.999 ms 23.074 ms
   142.251.60.208 (142.251.60.208) 23.187 ms
11 108.170.243.175 (108.170.243.175) 26.242 ms
   142.251.231.251 (142.251.231.251) 18.995 ms
   142.251.231.249 (142.251.231.249) 19.858 ms
12 atl14s78-in-f14.1e100.net (172.217.2.46) 20.674 ms 22.513 ms 22.144 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com
traceroute: Warning: www.youtube.com has multiple addresses; using 142.250.191.142
traceroute to youtube-ui.l.google.com (142.250.191.142), 64 hops max, 52 byte packets
 1 10.0.0.1 (10.0.0.1) 6.711 ms 7.557 ms 7.224 ms
 2 96.120.42.5 (96.120.42.5) 105.994 ms 11.411 ms 15.759 ms
 3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 13.808 ms 13.619 ms 14.241 ms
 4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 14.823 ms 14.390 ms 12.109 ms
 5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 25.111 ms 17.295 ms 17.475 ms
 6 be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181) 33.798 ms 167.637 ms
   be-32131-cs23.350ecermak.il.ibone.comcast.net (96.110.42.185) 31.785 ms
 7 be-2313-pe13.350ecermak.il.ibone.comcast.net (96.110.32.94) 29.169 ms
   be-2203-pe03.350ecermak.il.ibone.comcast.net (96.110.37.22) 49.173 ms
   be-2103-pe03.350ecermak.il.ibone.comcast.net (96.110.37.18) 20.340 ms
 8 66.208.233.218 (66.208.233.218) 22.060 ms
   75.149.230.26 (75.149.230.26) 22.809 ms
   66.208.233.90 (66.208.233.90) 114.638 ms
9 * * *
10 108.170.243.174 (108.170.243.174) 28.289 ms
   108.170.243.225 (108.170.243.225) 23.108 ms 24.390 ms
11 108.170.243.175 (108.170.243.175) 19.849 ms
   142.251.60.7 (142.251.60.7) 21.369 ms 20.694 ms
12 108.170.243.193 (108.170.243.193) 21.018 ms
   142.251.234.71 (142.251.234.71) 21.359 ms
   142.251.234.31 (142.251.234.31) 25.940 ms
13 142.251.60.7 (142.251.60.7) 24.432 ms
   72.14.232.108 (72.14.232.108) 23.530 ms
   142.251.60.7 (142.251.60.7) 22.261 ms
14 108.170.243.193 (108.170.243.193) 23.636 ms 19.346 ms
   ord38s29-in-f14.1e100.net (142.250.191.142) 19.710 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute 142.250.191.142
traceroute to 142.250.191.142 (142.250.191.142), 64 hops max, 52 byte packets
 1 10.0.0.1 (10.0.0.1) 8.563 ms 10.118 ms 5.292 ms
 2 96.120.42.5 (96.120.42.5) 19.565 ms 17.423 ms 22.865 ms
 3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 14.628 ms 21.729 ms 14.147 ms
 4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 14.876 ms 12.934 ms 16.549 ms
 5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 13.670 ms 31.881 ms 14.141 ms
 6 be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181) 25.001 ms 20.419 ms *
 7 be-2203-pe03.350ecermak.il.ibone.comcast.net (96.110.37.22) 26.295 ms
   be-2411-pe11.350ecermak.il.ibone.comcast.net (96.110.33.206) 26.539 ms
   be-2113-pe13.350ecermak.il.ibone.comcast.net (96.110.32.86) 19.776 ms
 8 50.208.235.178 (50.208.235.178) 23.778 ms

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66.208.233.218 (66.208.233.218) 22.550 ms
75.149.231.238 (75.149.231.238) 19.188 ms
g * * *
10 108.170.243.174 (108.170.243.174) 34.187 ms 24.718 ms
142.251.231.246 (142.251.231.246) 23.207 ms
11 108.170.243.175 (108.170.243.175) 19.422 ms 28.090 ms 19.950 ms
12 ord38s29-in-f14.1e100.net (142.250.191.142) 19.414 ms 22.325 ms
142.251.234.71 (142.251.234.71) 27.147 ms
saijoshithakathari@Sais-MacBook-Air documents %

AUTONOMOUS SYSTEM NUMBER OR ISP FOR EACH ROUTER:

saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 50.208.235.170

NetRange: 50.128.0.0 - 50.255.255.255
CIDR: 50.128.0.0/9
NetName: CCCH3-4
NetHandle: NET-50-128-0-0-1
Parent: NET50 (NET-50-0-0-0-0)
NetType: Direct Allocation
OriginAS: AS7922
Organization: Comcast Cable Communications, LLC (CCCS)
RegDate: 2010-10-21
Updated: 2021-01-25
Ref: <https://rdap.arin.net/registry/ip/50.128.0.0>
OrgName: Comcast Cable Communications, LLC
OrgId: CCCS
Address: 1800 Bishops Gate Blvd
City: Mt Laurel
StateProv: NJ
PostalCode: 08054
Country: US
RegDate: 2001-09-18
Updated: 2020-11-18
Ref: <https://rdap.arin.net/registry/entity/CCCS>
OrgAbuseHandle: NAPO-ARIN
OrgAbuseName: Network Abuse and Policy Observance
OrgAbusePhone: +1-888-565-4329
OrgAbuseEmail: abuse@comcast.net
OrgAbuseRef: <https://rdap.arin.net/registry/entity/NAPO-ARIN>
OrgTechHandle: IC161-ARIN
OrgTechName: Comcast Cable Communications Inc
OrgTechPhone: +1-856-792-2300
OrgTechEmail: CNIPEO-lp-registration@cable.comcast.com
OrgTechRef: <https://rdap.arin.net/registry/entity/IC161-ARIN>
OrgRoutingHandle: ROUTI25-ARIN
OrgRoutingName: Routing
OrgRoutingPhone: +1-856-792-2300
OrgRoutingEmail: routing@comcast.com
OrgRoutingRef: <https://rdap.arin.net/registry/entity/ROUTI25-ARIN>

saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 108.170.243.193

NetRange: 108.170.192.0 - 108.170.255.255
CIDR: 108.170.192.0/18
NetName: GOOGLE

NetHandle: NET-108-170-192-0-1
Parent: NET108 (NET-108-0-0-0-0)
NetType: Direct Allocation
OriginAS: AS15169
Organization: Google LLC (GOGL)
RegDate: 2012-02-07
Updated: 2012-02-07
Ref: <https://rdap.arin.net/registry/ip/108.170.192.0>
OrgName: Google LLC
OrgId: GOGL
Address: 1600 Amphitheatre Parkway
City: Mountain View
StateProv: CA
PostalCode: 94043
Country: US
RegDate: 2000-03-30
Updated: 2019-10-31
Comment: Please note that the recommended way to file abuse complaints are located in the following links.
Comment:
Comment: To report abuse and illegal activity: <https://www.google.com/contact/>
Comment:
Comment: For legal requests: <http://support.google.com/legal>
Comment:
Comment: Regards,
Comment: The Google Team
Ref: <https://rdap.arin.net/registry/entity/GOGL>
OrgTechHandle: ZG39-ARIN
OrgTechName: Google LLC
OrgTechPhone: +1-650-253-0000
OrgTechEmail: arin-contact@google.com
OrgTechRef: <https://rdap.arin.net/registry/entity/ZG39-ARIN>
OrgAbuseHandle: ABUSE5250-ARIN
OrgAbuseName: Abuse
OrgAbusePhone: +1-650-253-0000
OrgAbuseEmail: network-abuse@google.com
OrgAbuseRef: <https://rdap.arin.net/registry/entity/ABUSE5250-ARIN>

DAY3

saijoshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com

traceroute: Warning: www.youtube.com has multiple addresses; using 142.250.191.142

traceroute to youtube-ui.l.google.com (142.250.191.142), 64 hops max, 52 byte packets

```
1 10.0.0.1 (10.0.0.1) 20.022 ms 4.985 ms 4.364 ms
2 96.120.42.5 (96.120.42.5) 17.776 ms 14.456 ms 15.874 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 15.472 ms 14.702 ms 13.380 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 22.679 ms 16.415 ms 13.502 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 20.727 ms 18.438 ms 57.519 ms
6 be-32141-cs24.350ecermak.il.ibone.comcast.net (96.110.42.189) 38.696 ms
  be-32111-cs21.350ecermak.il.ibone.comcast.net (96.110.42.177) 34.838 ms 22.851 ms
7 be-2404-pe04.350ecermak.il.ibone.comcast.net (96.110.37.46) 51.311 ms
  be-2304-pe04.350ecermak.il.ibone.comcast.net (96.110.37.42) 27.082 ms
  be-2411-pe11.350ecermak.il.ibone.comcast.net (96.110.33.206) 21.075 ms
8 75.149.231.2 (75.149.231.2) 25.947 ms
  96-87-9-226-static.hfc.comcastbusiness.net (96.87.9.226) 22.435 ms
```



```

66.208.233.218 (66.208.233.218) 36.517 ms
g * * *
10 108.170.243.174 (108.170.243.174) 23.315 ms
    142.251.60.206 (142.251.60.206) 19.708 ms
    216.239.51.144 (216.239.51.144) 19.432 ms
11 108.170.244.15 (108.170.244.15) 25.338 ms
    108.170.243.254 (108.170.243.254) 23.089 ms
    142.251.60.7 (142.251.60.7) 22.308 ms
12 108.170.243.193 (108.170.243.193) 20.802 ms
    142.251.234.29 (142.251.234.29) 21.251 ms
    216.239.63.175 (216.239.63.175) 25.565 ms
13 142.251.234.68 (142.251.234.68) 54.956 ms
    142.251.60.7 (142.251.60.7) 25.137 ms
    ord38s29-in-f14.1e100.net (142.250.191.142) 21.299 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute 142.250.191.142
traceroute to 142.250.191.142 (142.250.191.142), 64 hops max, 52 byte packets
 1 10.0.0.1 (10.0.0.1) 14.345 ms 5.365 ms 5.759 ms
 2 96.120.42.5 (96.120.42.5) 15.875 ms 15.958 ms 15.746 ms
 3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 17.146 ms 14.769 ms 24.050 ms
 4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 14.314 ms 16.241 ms 13.585 ms
 5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 18.541 ms 19.708 ms 56.623 ms
 6 * be-32131-cs23.350ecermak.il.ibone.comcast.net (96.110.42.185) 22.714 ms *
 7 be-2303-pe03.350ecermak.il.ibone.comcast.net (96.110.37.26) 38.663 ms
    be-2213-pe13.350ecermak.il.ibone.comcast.net (96.110.32.90) 20.956 ms
    be-2111-pe11.350ecermak.il.ibone.comcast.net (96.110.33.194) 31.176 ms
 8 66.208.233.90 (66.208.233.90) 20.484 ms
    75.149.229.142 (75.149.229.142) 22.714 ms
    66.208.233.218 (66.208.233.218) 139.289 ms
g * * *
10 142.251.61.40 (142.251.61.40) 52.484 ms
    108.170.243.174 (108.170.243.174) 29.349 ms
    142.251.231.68 (142.251.231.68) 21.544 ms
11 142.251.60.7 (142.251.60.7) 21.071 ms
    108.170.243.175 (108.170.243.175) 23.450 ms 24.610 ms
12 142.251.234.161 (142.251.234.161) 27.087 ms
    108.170.243.193 (108.170.243.193) 22.042 ms
    ord38s29-in-f14.1e100.net (142.250.191.142) 26.544 ms
joshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com
traceroute: Warning: www.youtube.com has multiple addresses; using 142.250.191.142
traceroute to youtube-ui.l.google.com (142.250.191.142), 64 hops max, 52 byte packets
 1 10.0.0.1 (10.0.0.1) 9.661 ms 5.637 ms 5.213 ms
 2 96.120.42.5 (96.120.42.5) 17.692 ms 18.427 ms 16.619 ms
 3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 19.036 ms 15.260 ms 14.311 ms
 4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 17.261 ms 15.897 ms 16.924 ms
 5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 15.285 ms 13.314 ms 14.334 ms
 6 be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181) 19.976 ms
    be-32131-cs23.350ecermak.il.ibone.comcast.net (96.110.42.185) 26.367 ms 29.613 ms
 7 be-2303-pe03.350ecermak.il.ibone.comcast.net (96.110.37.26) 21.030 ms
    be-2313-pe13.350ecermak.il.ibone.comcast.net (96.110.32.94) 21.058 ms
    be-2403-pe03.350ecermak.il.ibone.comcast.net (96.110.37.30) 21.102 ms
 8 66.208.233.218 (66.208.233.218) 21.884 ms

```

```

50.208.235.174 (50.208.235.174) 26.182 ms
66.208.233.218 (66.208.233.218) 43.435 ms
g * * *
10 142.251.231.68 (142.251.231.68) 21.858 ms
    108.170.243.225 (108.170.243.225) 22.731 ms 20.372 ms
11 108.170.243.165 (108.170.243.165) 21.892 ms
    108.170.244.2 (108.170.244.2) 20.609 ms 21.890 ms
12 216.239.63.175 (216.239.63.175) 19.864 ms
    142.251.234.31 (142.251.234.31) 26.242 ms
    209.85.241.123 (209.85.241.123) 22.253 ms
13 ord38s29-in-f14.1e100.net (142.250.191.142) 19.099 ms
    72.14.233.11 (72.14.233.11) 31.634 ms
    142.251.60.7 (142.251.60.7) 22.081 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute 142.250.191.142
traceroute to 142.250.191.142 (142.250.191.142), 64 hops max, 52 byte packets
 1 10.0.0.1 (10.0.0.1) 11.632 ms 5.358 ms 6.131 ms
 2 96.120.42.5 (96.120.42.5) 18.407 ms 12.791 ms 16.457 ms
 3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 26.745 ms 19.454 ms 11.618 ms
 4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 17.104 ms 12.270 ms 13.985 ms
 5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 14.884 ms 17.377 ms 19.345 ms
 6 be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181) 24.485 ms
    be-32141-cs24.350ecermak.il.ibone.comcast.net (96.110.42.189) 22.786 ms 25.256 ms
 7 be-2213-pe13.350ecermak.il.ibone.comcast.net (96.110.32.90) 23.244 ms
    be-2203-pe03.350ecermak.il.ibone.comcast.net (96.110.37.22) 20.831 ms
    be-2103-pe03.350ecermak.il.ibone.comcast.net (96.110.37.18) 25.363 ms
 8 66.208.233.218 (66.208.233.218) 20.739 ms
    50.208.235.170 (50.208.235.170) 32.982 ms
    75.149.229.142 (75.149.229.142) 25.312 ms
g * * *
10 108.170.230.234 (108.170.230.234) 31.867 ms
    108.170.243.225 (108.170.243.225) 22.636 ms
    108.170.243.174 (108.170.243.174) 20.377 ms
11 108.170.244.15 (108.170.244.15) 55.874 ms
    108.170.243.233 (108.170.243.233) 27.949 ms
    108.170.243.175 (108.170.243.175) 36.263 ms
12 209.85.251.241 (209.85.251.241) 28.069 ms
    142.251.234.161 (142.251.234.161) 20.941 ms
    ord38s29-in-f14.1e100.net (142.250.191.142) 27.972 ms
saijoshithakathari@Sais-MacBook-Air documents %

```

AUTONOMOUS SYSTEM NUMBER OR ISP FOR EACH ROUTER:

```

saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 96.110.42.189
NetRange: 96.64.0.0 - 96.124.255.255
CIDR: 96.124.0.0/16, 96.112.0.0/13, 96.64.0.0/11, 96.120.0.0/14, 96.96.0.0/12
NetName: CABLE-1
NetHandle: NET-96-64-0-0-1
Parent: NET96 (NET-96-0-0-0-0)
NetType: Direct Allocation
OriginAS: AS7922
Organization: Comcast Cable Communications, LLC (CCCS)
RegDate: 2008-02-21

```

Updated: 2021-01-25
Ref: <https://rdap.arin.net/registry/ip/96.64.0.0>
OrgName: Comcast Cable Communications, LLC
OrgId: CCCS
Address: 1800 Bishops Gate Blvd
City: Mt Laurel
StateProv: NJ
PostalCode: 08054
Country: US
RegDate: 2001-09-18
Updated: 2020-11-18
Ref: <https://rdap.arin.net/registry/entity/CCCS>
OrgAbuseHandle: NAPO-ARIN
OrgAbuseName: Network Abuse and Policy Observance
OrgAbusePhone: +1-888-565-4329
OrgAbuseEmail: abuse@comcast.net
OrgAbuseRef: <https://rdap.arin.net/registry/entity/NAPO-ARIN>
OrgTechHandle: IC161-ARIN
OrgTechName: Comcast Cable Communications Inc
OrgTechPhone: +1-856-792-2300
OrgTechEmail: CNIPEO-lp-registration@cable.comcast.com
OrgTechRef: <https://rdap.arin.net/registry/entity/IC161-ARIN>
OrgRoutingHandle: ROUTI25-ARIN
OrgRoutingName: Routing
OrgRoutingPhone: +1-856-792-2300
OrgRoutingEmail: routing@comcast.com
OrgRoutingRef: <https://rdap.arin.net/registry/entity/ROUTI25-ARIN>

saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 142.251.234.68

NetRange: 142.250.0.0 - 142.251.255.255
CIDR: 142.250.0.0/15
NetName: GOOGLE
NetHandle: NET-142-250-0-0-1
Parent: NET142 (NET-142-0-0-0-0)
NetType: Direct Allocation
OriginAS: AS15169
Organization: Google LLC (GOGL)
RegDate: 2012-05-24
Updated: 2012-05-24
Ref: <https://rdap.arin.net/registry/ip/142.250.0.0>
OrgName: Google LLC
OrgId: GOGL
Address: 1600 Amphitheatre Parkway
City: Mountain View
StateProv: CA
PostalCode: 94043
Country: US
RegDate: 2000-03-30
Updated: 2019-10-31
Comment: Please note that the recommended way to file abuse complaints are located in the following links.
Comment:
Comment: To report abuse and illegal activity: <https://www.google.com/contact/>
Comment:
Comment: For legal requests: <http://support.google.com/legal>

Comment:

Comment: Regards,

Comment: The Google Team

Ref: <https://rdap.arin.net/registry/entity/GOGL>

OrgTechHandle: ZG39-ARIN

OrgTechName: Google LLC

OrgTechPhone: +1-650-253-0000

OrgTechEmail: arin-contact@google.com

OrgTechRef: <https://rdap.arin.net/registry/entity/ZG39-ARIN>

OrgAbuseHandle: ABUSE5250-ARIN

OrgAbuseName: Abuse

OrgAbusePhone: +1-650-253-0000

OrgAbuseEmail: network-abuse@google.com

OrgAbuseRef: <https://rdap.arin.net/registry/entity/ABUSE5250-ARIN>

DAY4

saijoshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com

traceroute: Warning: www.youtube.com has multiple addresses; using 142.250.191.238

traceroute to youtube-ui.l.google.com (142.250.191.238), 64 hops max, 52 byte packets

```
1  10.0.0.1 (10.0.0.1)  10.642 ms  6.176 ms  5.075 ms
2  96.120.42.5 (96.120.42.5)  15.155 ms  13.321 ms  11.751 ms
3  po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121)  15.007 ms  17.310 ms  14.807 ms
4  po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14)  14.696 ms  12.852 ms  11.774 ms
5  ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29)  29.111 ms  16.978 ms  21.237 ms
6  be-32131-cs23.350ecermak.il.ibone.comcast.net (96.110.42.185)  28.457 ms
   be-32111-cs21.350ecermak.il.ibone.comcast.net (96.110.42.177)  24.027 ms
   be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181)  23.777 ms
7  be-2104-pe04.350ecermak.il.ibone.comcast.net (96.110.37.34)  42.402 ms
   be-2111-pe11.350ecermak.il.ibone.comcast.net (96.110.33.194)  23.695 ms
   be-2313-pe13.350ecermak.il.ibone.comcast.net (96.110.32.94)  20.556 ms
8  75.149.230.26 (75.149.230.26)  23.919 ms
   66.208.233.218 (66.208.233.218)  33.621 ms
   75.149.229.142 (75.149.229.142)  21.455 ms
9  * * *
10 142.251.60.12 (142.251.60.12)  43.272 ms
    142.251.60.6 (142.251.60.6)  22.240 ms
    142.251.61.40 (142.251.61.40)  33.288 ms
11 108.170.244.15 (108.170.244.15)  24.177 ms
    142.251.60.19 (142.251.60.19)  21.573 ms
    142.251.60.17 (142.251.60.17)  25.158 ms
12 142.251.234.31 (142.251.234.31)  25.582 ms
    209.85.251.241 (209.85.251.241)  20.886 ms
    216.239.57.77 (216.239.57.77)  31.305 ms
13 ord38s32-in-f14.1e100.net (142.250.191.238)  21.330 ms
    72.14.233.11 (72.14.233.11)  23.293 ms
    ord38s32-in-f14.1e100.net (142.250.191.238)  21.039 ms
```

saijoshithakathari@Sais-MacBook-Air documents % traceroute 142.250.191.238

traceroute to 142.250.191.238 (142.250.191.238), 64 hops max, 52 byte packets

```
1  10.0.0.1 (10.0.0.1)  8.345 ms  6.663 ms  7.466 ms
2  96.120.42.5 (96.120.42.5)  19.945 ms  23.770 ms  12.559 ms
3  po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121)  14.261 ms  16.850 ms  13.948 ms
4  po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14)  11.850 ms  13.119 ms  13.435 ms
```

```
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 14.779 ms 31.620 ms 27.863 ms
6 be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181) 23.321 ms 21.313 ms *
7 be-2304-pe04.350ecermak.il.ibone.comcast.net (96.110.37.42) 34.750 ms
  be-2104-pe04.350ecermak.il.ibone.comcast.net (96.110.37.34) 23.272 ms
  be-2113-pe13.350ecermak.il.ibone.comcast.net (96.110.32.86) 21.080 ms
8 50.208.235.174 (50.208.235.174) 23.407 ms
  75.149.231.2 (75.149.231.2) 40.806 ms 22.079 ms
9 * * *
10 142.251.61.40 (142.251.61.40) 33.595 ms
  142.251.60.2 (142.251.60.2) 25.703 ms
  142.251.60.14 (142.251.60.14) 20.096 ms
11 108.170.244.2 (108.170.244.2) 23.057 ms
  108.170.244.15 (108.170.244.15) 68.405 ms
  142.251.60.17 (142.251.60.17) 20.173 ms
12 ord38s32-in-f14.1e100.net (142.250.191.238) 21.903 ms 19.708 ms 19.123 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com
traceroute: Warning: www.youtube.com has multiple addresses; using 142.250.191.238
traceroute to youtube-ui.l.google.com (142.250.191.238), 64 hops max, 52 byte packets
1 10.0.0.1 (10.0.0.1) 98.125 ms 7.433 ms 4.180 ms
2 96.120.42.5 (96.120.42.5) 18.706 ms 18.403 ms 14.394 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 18.779 ms 13.357 ms 12.995 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 13.375 ms 11.953 ms 12.607 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 18.389 ms 13.031 ms 32.517 ms
6 be-32141-cs24.350ecermak.il.ibone.comcast.net (96.110.42.189) 23.010 ms
  be-32111-cs21.350ecermak.il.ibone.comcast.net (96.110.42.177) 26.112 ms 22.973 ms
7 be-2304-pe04.350ecermak.il.ibone.comcast.net (96.110.37.42) 24.353 ms
  be-2311-pe11.350ecermak.il.ibone.comcast.net (96.110.33.202) 21.941 ms
  be-2413-pe13.350ecermak.il.ibone.comcast.net (96.110.32.98) 20.453 ms
8 50.208.235.178 (50.208.235.178) 18.558 ms
  66.208.233.90 (66.208.233.90) 20.947 ms
  75.149.231.238 (75.149.231.238) 25.344 ms
9 * * *
10 142.251.60.10 (142.251.60.10) 34.547 ms
  108.170.243.225 (108.170.243.225) 30.307 ms
  142.251.60.210 (142.251.60.210) 21.778 ms
11 108.170.244.15 (108.170.244.15) 32.260 ms
  142.251.60.17 (142.251.60.17) 28.432 ms
  108.170.243.233 (108.170.243.233) 30.030 ms
12 ord38s32-in-f14.1e100.net (142.250.191.238) 19.703 ms
  142.251.234.31 (142.251.234.31) 21.320 ms
  142.251.234.157 (142.251.234.157) 23.707 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute 142.250.191.238
traceroute to 142.250.191.238 (142.250.191.238), 64 hops max, 52 byte packets
1 10.0.0.1 (10.0.0.1) 9.494 ms 10.399 ms 4.678 ms
2 96.120.42.5 (96.120.42.5) 19.677 ms 15.554 ms 16.795 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 15.999 ms 13.526 ms 29.578 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 57.711 ms 12.713 ms 14.178 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 23.223 ms 30.305 ms 16.027 ms
6 be-32111-cs21.350ecermak.il.ibone.comcast.net (96.110.42.177) 55.913 ms * *
7 be-2113-pe13.350ecermak.il.ibone.comcast.net (96.110.32.86) 36.438 ms
  be-2211-pe11.350ecermak.il.ibone.comcast.net (96.110.33.198) 28.012 ms
```

be-2203-pe03.350ecermak.il.ibone.comcast.net (96.110.37.22) 27.279 ms
 8 50.208.235.170 (50.208.235.170) 27.437 ms
 75.149.231.2 (75.149.231.2) 34.250 ms
 66.208.233.218 (66.208.233.218) 46.555 ms
 9 * * *
 10 142.251.231.246 (142.251.231.246) 27.688 ms
 142.251.60.210 (142.251.60.210) 18.849 ms
 142.251.60.6 (142.251.60.6) 20.177 ms
 11 108.170.243.233 (108.170.243.233) 41.855 ms
 108.170.243.254 (108.170.243.254) 22.484 ms 29.864 ms
 12 216.239.63.175 (216.239.63.175) 19.542 ms
 ord38s32-in-f14.1e100.net (142.250.191.238) 25.948 ms 28.729 ms

AUTONOMOUS SYSTEM NUMBER OR ISP FOR EACH ROUTER:

saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 142.250.191.238

NetRange: 142.250.0.0 - 142.251.255.255

CIDR: 142.250.0.0/15

NetName: GOOGLE

NetHandle: NET-142-250-0-0-1

Parent: NET142 (NET-142-0-0-0-0)

NetType: Direct Allocation

OriginAS: AS15169

Organization: Google LLC (GOGL)

RegDate: 2012-05-24

Updated: 2012-05-24

Ref: <https://rdap.arin.net/registry/ip/142.250.0.0>

OrgName: Google LLC

OrgId: GOGL

Address: 1600 Amphitheatre Parkway

City: Mountain View

StateProv: CA

PostalCode: 94043

Country: US

RegDate: 2000-03-30

Updated: 2019-10-31

Comment: Please note that the recommended way to file abuse complaints are located in the following links.

Comment:

Comment: To report abuse and illegal activity: <https://www.google.com/contact/>

Comment:

Comment: For legal requests: <http://support.google.com/legal>

Comment:

Comment: Regards,

Comment: The Google Team

Ref: <https://rdap.arin.net/registry/entity/GOGL>

OrgAbuseHandle: ABUSE5250-ARIN

OrgAbuseName: Abuse

OrgAbusePhone: +1-650-253-0000

OrgAbuseEmail: network-abuse@google.com

OrgAbuseRef: <https://rdap.arin.net/registry/entity/ABUSE5250-ARIN>

OrgTechHandle: ZG39-ARIN

OrgTechName: Google LLC

OrgTechPhone: +1-650-253-0000

OrgTechEmail: arin-contact@google.com

OrgTechRef: <https://rdap.arin.net/registry/entity/ZG39-ARIN>
saijoshithakathari@Sais-MacBook-Air ~ %

```
saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 96.110.33.194
NetRange: 96.64.0.0 - 96.124.255.255
CIDR: 96.96.0.0/12, 96.112.0.0/13, 96.120.0.0/14, 96.64.0.0/11, 96.124.0.0/16
NetName: CABLE-1
NetHandle: NET-96-64-0-0-1
Parent: NET96 (NET-96-0-0-0-0)
NetType: Direct Allocation
OriginAS: AS7922
Organization: Comcast Cable Communications, LLC (CCCS)
RegDate: 2008-02-21
Updated: 2021-01-25
Ref: https://rdap.arin.net/registry/ip/96.64.0.0
OrgName: Comcast Cable Communications, LLC
OrgId: CCCS
Address: 1800 Bishops Gate Blvd
City: Mt Laurel
StateProv: NJ
PostalCode: 08054
Country: US
RegDate: 2001-09-18
Updated: 2020-11-18
Ref: https://rdap.arin.net/registry/entity/CCCS
OrgTechHandle: IC161-ARIN
OrgTechName: Comcast Cable Communications Inc
OrgTechPhone: +1-856-792-2300
OrgTechEmail: CNIPEO-lp-registration@cable.comcast.com
OrgTechRef: https://rdap.arin.net/registry/entity/IC161-ARIN
OrgAbuseHandle: NAPO-ARIN
OrgAbuseName: Network Abuse and Policy Observance
OrgAbusePhone: +1-888-565-4329
OrgAbuseEmail: abuse@comcast.net
OrgAbuseRef: https://rdap.arin.net/registry/entity/NAPO-ARIN
OrgRoutingHandle: ROUTI25-ARIN
OrgRoutingName: Routing
OrgRoutingPhone: +1-856-792-2300
OrgRoutingEmail: routing@comcast.com
OrgRoutingRef: https://rdap.arin.net/registry/entity/ROUTI25-ARIN
```

DAYS

```
saijoshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com
traceroute: Warning: www.youtube.com has multiple addresses; using 142.250.191.206
traceroute to youtube-ui.l.google.com (142.250.191.206), 64 hops max, 52 byte packets
 1 10.0.0.1 (10.0.0.1) 12.020 ms 5.559 ms 9.513 ms
 2 96.120.42.5 (96.120.42.5) 17.920 ms 12.180 ms 18.082 ms
 3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 21.954 ms 12.041 ms 18.903 ms
 4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 16.754 ms 15.910 ms 11.712 ms
 5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 21.931 ms 13.748 ms 15.677 ms
 6 be-32141-cs24.350ecermak.il.ibone.comcast.net (96.110.42.189) 32.012 ms
   be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181) 25.002 ms
```

```

be-32131-cs23.350ecermak.il.ibone.comcast.net (96.110.42.185) 23.020 ms
7 be-2404-pe04.350ecermak.il.ibone.comcast.net (96.110.37.46) 21.861 ms
be-2403-pe03.350ecermak.il.ibone.comcast.net (96.110.37.30) 22.277 ms
be-2204-pe04.350ecermak.il.ibone.comcast.net (96.110.37.38) 21.450 ms
8 96-87-9-226-static.hfc.comcastbusiness.net (96.87.9.226) 121.824 ms
50.208.235.170 (50.208.235.170) 19.882 ms
75.149.231.2 (75.149.231.2) 22.548 ms
9 * * *
10 142.251.60.214 (142.251.60.214) 34.885 ms
142.251.60.8 (142.251.60.8) 21.933 ms
142.251.60.16 (142.251.60.16) 23.713 ms
11 108.170.244.2 (108.170.244.2) 28.245 ms
108.170.244.15 (108.170.244.15) 23.203 ms
142.251.60.13 (142.251.60.13) 22.040 ms
12 ord38s31-in-f14.1e100.net (142.250.191.206) 20.357 ms
216.239.57.77 (216.239.57.77) 26.487 ms
ord38s31-in-f14.1e100.net (142.250.191.206) 22.442 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute 142.250.191.206
traceroute to 142.250.191.206 (142.250.191.206), 64 hops max, 52 byte packets
1 10.0.0.1 (10.0.0.1) 9.844 ms 5.144 ms 4.590 ms
2 96.120.42.5 (96.120.42.5) 13.876 ms 11.948 ms 18.250 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 15.116 ms 19.945 ms 15.992 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 24.521 ms 18.309 ms 16.160 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 17.323 ms 21.563 ms 17.479 ms
6 * * *
7 be-2413-pe13.350ecermak.il.ibone.comcast.net (96.110.32.98) 45.064 ms
be-2104-pe04.350ecermak.il.ibone.comcast.net (96.110.37.34) 27.300 ms
be-2413-pe13.350ecermak.il.ibone.comcast.net (96.110.32.98) 20.293 ms
8 50.208.235.170 (50.208.235.170) 21.885 ms
96-87-9-230-static.hfc.comcastbusiness.net (96.87.9.230) 26.692 ms
75.149.229.142 (75.149.229.142) 21.321 ms
9 * * *
10 108.170.243.225 (108.170.243.225) 41.332 ms
142.251.60.22 (142.251.60.22) 25.015 ms
142.251.60.18 (142.251.60.18) 24.242 ms
11 108.170.244.2 (108.170.244.2) 33.691 ms
108.170.243.254 (108.170.243.254) 29.676 ms
142.251.60.15 (142.251.60.15) 19.948 ms
12 209.85.251.241 (209.85.251.241) 22.969 ms
ord38s31-in-f14.1e100.net (142.250.191.206) 20.274 ms
216.239.57.77 (216.239.57.77) 20.841 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute www.youtube.com
traceroute: Warning: www.youtube.com has multiple addresses; using 172.217.4.206
traceroute to youtube-ui.l.google.com (172.217.4.206), 64 hops max, 52 byte packets
1 10.0.0.1 (10.0.0.1) 10.168 ms 6.998 ms 5.649 ms
2 96.120.42.5 (96.120.42.5) 15.940 ms 12.284 ms 12.419 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 15.337 ms 12.988 ms 12.959 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 15.678 ms 32.658 ms 15.896 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 22.479 ms 27.221 ms 16.578 ms
6 be-32131-cs23.350ecermak.il.ibone.comcast.net (96.110.42.185) 25.241 ms * *
7 be-2211-pe11.350ecermak.il.ibone.comcast.net (96.110.33.198) 74.456 ms

```



```

be-2113-pe13.350ecermak.il.ibone.comcast.net (96.110.32.86) 22.362 ms
be-2411-pe11.350ecermak.il.ibone.comcast.net (96.110.33.206) 25.771 ms
8 96-87-9-226-static.hfc.comcastbusiness.net (96.87.9.226) 47.229 ms
75.149.231.238 (75.149.231.238) 19.704 ms
96-87-9-226-static.hfc.comcastbusiness.net (96.87.9.226) 364.108 ms
9 * * *
10 142.251.61.40 (142.251.61.40) 32.623 ms
216.239.47.128 (216.239.47.128) 38.072 ms
108.170.243.174 (108.170.243.174) 23.934 ms
11 108.170.243.175 (108.170.243.175) 20.168 ms
108.170.230.235 (108.170.230.235) 23.987 ms
108.170.243.219 (108.170.243.219) 188.654 ms
12 ord37s19-in-f14.1e100.net (172.217.4.206) 30.087 ms
142.251.233.232 (142.251.233.232) 31.765 ms
ord37s19-in-f14.1e100.net (172.217.4.206) 19.613 ms
saijoshithakathari@Sais-MacBook-Air documents % traceroute 172.217.4.206
traceroute to 172.217.4.206 (172.217.4.206), 64 hops max, 52 byte packets
1 10.0.0.1 (10.0.0.1) 15.820 ms 5.804 ms 6.713 ms
2 96.120.42.5 (96.120.42.5) 14.665 ms 12.271 ms 14.491 ms
3 po-301-1209-rur01.dearborn.mi.michigan.comcast.net (96.110.172.121) 13.695 ms 12.449 ms 11.916 ms
4 po-1-rur02.dearborn.mi.michigan.comcast.net (68.85.223.14) 13.279 ms 102.683 ms 15.253 ms
5 ae-60-ar01.pontiac.mi.michigan.comcast.net (68.87.190.29) 19.346 ms 95.978 ms 27.915 ms
6 be-32121-cs22.350ecermak.il.ibone.comcast.net (96.110.42.181) 21.283 ms *
be-32111-cs21.350ecermak.il.ibone.comcast.net (96.110.42.177) 76.623 ms
7 be-2213-pe13.350ecermak.il.ibone.comcast.net (96.110.32.90) 38.587 ms
be-2303-pe03.350ecermak.il.ibone.comcast.net (96.110.37.26) 20.708 ms
be-2103-pe03.350ecermak.il.ibone.comcast.net (96.110.37.18) 25.232 ms
8 66.208.233.218 (66.208.233.218) 43.482 ms 23.495 ms
96-87-9-226-static.hfc.comcastbusiness.net (96.87.9.226) 21.032 ms
9 * * *
10 142.251.60.206 (142.251.60.206) 19.682 ms
142.251.231.244 (142.251.231.244) 59.952 ms
142.251.60.200 (142.251.60.200) 21.890 ms
11 74.125.251.47 (74.125.251.47) 30.390 ms 31.361 ms
108.170.243.165 (108.170.243.165) 26.057 ms
12 ord37s19-in-f14.1e100.net (172.217.4.206) 21.755 ms 19.728 ms
209.85.241.124 (209.85.241.124) 20.264 ms

```

AUTONOMOUS SYSTEM NUMBER OR ISP FOR EACH ROUTER:

```

saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 96.110.37.46
NetRange: 96.64.0.0 - 96.124.255.255
CIDR: 96.64.0.0/11, 96.112.0.0/13, 96.120.0.0/14, 96.96.0.0/12, 96.124.0.0/16
NetName: CABLE-1
NetHandle: NET-96-64-0-0-1
Parent: NET96 (NET-96-0-0-0-0)
NetType: Direct Allocation
OriginAS: AS7922
Organization: Comcast Cable Communications, LLC (CCCS)
RegDate: 2008-02-21
Updated: 2021-01-25
Ref: https://rdap.arin.net/registry/ip/96.64.0.0
OrgName: Comcast Cable Communications, LLC

```

OrgId: CCCS
Address: 1800 Bishops Gate Blvd
City: Mt Laurel
StateProv: NJ
PostalCode: 08054
Country: US
RegDate: 2001-09-18
Updated: 2020-11-18
Ref: <https://rdap.arin.net/registry/entity/CCCS>
OrgAbuseHandle: NAPO-ARIN
OrgAbuseName: Network Abuse and Policy Observance
OrgAbusePhone: +1-888-565-4329
OrgAbuseEmail: abuse@comcast.net
OrgAbuseRef: <https://rdap.arin.net/registry/entity/NAPO-ARIN>
OrgRoutingHandle: ROUTI25-ARIN
OrgRoutingName: Routing
OrgRoutingPhone: +1-856-792-2300
OrgRoutingEmail: routing@comcast.com
OrgRoutingRef: <https://rdap.arin.net/registry/entity/ROUTI25-ARIN>
OrgTechHandle: IC161-ARIN
OrgTechName: Comcast Cable Communications Inc
OrgTechPhone: +1-856-792-2300
OrgTechEmail: CNIPEO-lp-registration@cable.comcast.com
OrgTechRef: <https://rdap.arin.net/registry/entity/IC161-ARIN>

saijoshithakathari@Sais-MacBook-Air ~ % whois -h whois.arin.net 96.110.32.86
NetRange: 96.64.0.0 - 96.124.255.255
CIDR: 96.112.0.0/13, 96.120.0.0/14, 96.124.0.0/16, 96.96.0.0/12, 96.64.0.0/11
NetName: CABLE-1
NetHandle: NET-96-64-0-0-1
Parent: NET96 (NET-96-0-0-0-0)
NetType: Direct Allocation
OriginAS: AS7922
Organization: Comcast Cable Communications, LLC (CCCS)
RegDate: 2008-02-21
Updated: 2021-01-25
Ref: <https://rdap.arin.net/registry/ip/96.64.0.0>
OrgName: Comcast Cable Communications, LLC
OrgId: CCCS
Address: 1800 Bishops Gate Blvd
City: Mt Laurel
StateProv: NJ
PostalCode: 08054
Country: US
RegDate: 2001-09-18
Updated: 2020-11-18
Ref: <https://rdap.arin.net/registry/entity/CCCS>
OrgRoutingHandle: ROUTI25-ARIN
OrgRoutingName: Routing
OrgRoutingPhone: +1-856-792-2300
OrgRoutingEmail: routing@comcast.com
OrgRoutingRef: <https://rdap.arin.net/registry/entity/ROUTI25-ARIN>
OrgAbuseHandle: NAPO-ARIN
OrgAbuseName: Network Abuse and Policy Observance

OrgAbusePhone: +1-888-565-4329
OrgAbuseEmail: abuse@comcast.net
OrgAbuseRef: <https://rdap.arin.net/registry/entity/NAPO-ARIN>
OrgTechHandle: IC161-ARIN
OrgTechName: Comcast Cable Communications Inc
OrgTechPhone: +1-856-792-2300
OrgTechEmail: CNIPEO-lp-registration@cable.comcast.com
OrgTechRef: <https://rdap.arin.net/registry/entity/IC161-ARIN>