

Project Title: Network Connectivity Testing Using `ping` Utility

Objective

To explore, analyze, and document real-world use cases of the `ping` command for diagnosing and validating network connectivity. This project replicates key troubleshooting scenarios relevant to IT support, network engineering, and SOC analysis roles.





Tools Used

- **Operating System:** Kali Linux (or any Linux distro)
- **Primary Utility:** `ping`
- **Text Editors:** `nano`, `vim` (for logging and note keeping)
- **Optional:** `tee`, `grep`, `awk` for output parsing

Skills Learned

- Network diagnostics and troubleshooting fundamentals
- Understanding ICMP protocol and TTL values
- MTU (Maximum Transmission Unit) and packet fragmentation
- Packet loss analysis and reliability metrics
- Interface-based pinging and DNS-less connectivity checks
- Logging and scripting network checks for automation

Test Scenarios Covered

Level	Description	Command Example
 Basic	Ping a domain and interpret round-trip time, packet loss	<code>ping google.com -c 4</code>
 Intermediate	Continuous ping (until stopped manually) and user interrupt techniques	<code>ping 8.8.8.8</code> → Ctrl + C
 Advanced	Ping with specific count and delay	<code>ping -c 10 -i 0.5 hostname.com</code>
 Advanced	Test MTU limits by sending 1500-byte payloads	<code>ping -s 1500 google.com</code>
Q5	Check machine status without DNS	<code>ping <local-IP></code> or <code>ping -n <IP></code>
Q6	Ping using specific network interface	<code>ping -I eth0 google.com</code>
Q7	Test TTL effect to observe hops or detect loops	<code>ping -t 5 google.com</code>
Q8	Log ping output for review or automation	<code>ping google.com -c 5 > ping_log.txt</code>
Q9	Measure reliability and packet loss over long durations	<code>ping -c 100 google.com</code> → Analyze stats

Level	Description	Command Example
Q10	Detect jitter/intermittent loss over time	Use scripts + ping + grep time= every few seconds
Q11	Detect if a domain is firewall-blocked (e.g., dropped ICMP)	ping blockedsite.com vs traceroute behavior

Real-World Impact & Use Case

Understanding ping at this depth is **vital** for:

- IT Helpdesk agents identifying user connectivity issues
- SOC analysts detecting DDoS anomalies (e.g., ping flood)
- Network engineers validating link stability and latency
- Diagnosing DNS resolution vs. network path issues

```

kali@kali: ~
File Actions Edit View Help

(kali@kali)~$ ping google.com
PING google.com (142.250.80.110) 56(84) bytes of data:
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=1 ttl=115 time=59.6 ms
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=2 ttl=115 time=57.1 ms
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=3 ttl=115 time=61.8 ms
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=4 ttl=115 time=54.5 ms
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=5 ttl=115 time=62.7 ms
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=6 ttl=115 time=58.4 ms
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=7 ttl=115 time=58.3 ms
^C
  google.com ping statistics:
  7 packets transmitted, 7 received, 0% packet loss, time 6016ms
 rtt min/avg/max/mdev = 54.490/58.911/62.696/2.575 ms

(kali@kali)~$ ping -c 4 google.com
PING google.com (142.250.80.110) 56(84) bytes of data:
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=1 ttl=115 time=58.7 ms
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=2 ttl=115 time=58.3 ms
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=3 ttl=115 time=59.7 ms
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=4 ttl=115 time=53.7 ms

  google.com ping statistics:
  4 packets transmitted, 4 received, 0% packet loss, time 3007ms
 rtt min/avg/max/mdev = 53.657/57.573/59.676/2.316 ms

(kali@kali)~$ ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data:
64 bytes from 8.8.8.8: icmp_seq=1 ttl=115 time=72.7 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=115 time=56.3 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=115 time=76.2 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=115 time=55.1 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=115 time=52.8 ms
64 bytes from 8.8.8.8: icmp_seq=6 ttl=115 time=57.8 ms
^C
  8.8.8.8 ping statistics:
  6 packets transmitted, 6 received, 0% packet loss, time 5013ms
 rtt min/avg/max/mdev = 52.754/61.832/76.227/9.120 ms

```

```
kali@kali: ~  
File Actions Edit View Help  
^C  
— 8.8.8.8 ping statistics —  
6 packets transmitted, 6 received, 0% packet loss, time 5013ms  
rtt min/avg/max/mdev = 52.754/61.832/76.227/9.120 ms  
  
(kali@kali)~  
$ ping -c 10 -i 0.5 example.com  
  
PING example.com (23.215.0.136) 56(84) bytes of data.  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=1 ttl=45 time=67.6 ms  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=2 ttl=45 time=59.7 ms  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=3 ttl=45 time=63.2 ms  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=4 ttl=45 time=65.8 ms  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=5 ttl=45 time=65.0 ms  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=6 ttl=45 time=62.8 ms  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=7 ttl=45 time=56.5 ms  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=8 ttl=45 time=63.8 ms  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=9 ttl=45 time=61.0 ms  
64 bytes from a23-215-0-136.deploy.static.akamaitechnologies.com (23.215.0.136): icmp_seq=10 ttl=45 time=67.1 ms  
  
— example.com ping statistics —  
10 packets transmitted, 10 received, 0% packet loss, time 4526ms  
rtt min/avg/max/mdev = 56.541/63.256/67.631/3.271 ms  
  
(kali@kali)~  
$ ping -s 1500 example.com  
  
PING example.com (23.215.0.138) 1500(1528) bytes of data.  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=1 ttl=47 time=66.9 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=2 ttl=47 time=62.9 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=3 ttl=47 time=83.4 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=4 ttl=47 time=60.4 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=5 ttl=47 time=59.4 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=6 ttl=47 time=81.6 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=7 ttl=47 time=61.9 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=8 ttl=47 time=67.2 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=9 ttl=47 time=73.2 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=10 ttl=47 time=65.5 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=11 ttl=47 time=66.2 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=12 ttl=47 time=70.9 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=13 ttl=47 time=70.6 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=14 ttl=47 time=67.1 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=15 ttl=47 time=62.7 ms
```

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kali@kali: ~  
File Actions Edit View Help  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=6 ttl=47 time=81.6 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=7 ttl=47 time=61.9 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=8 ttl=47 time=67.2 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=9 ttl=47 time=73.2 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=10 ttl=47 time=65.5 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=11 ttl=47 time=66.2 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=12 ttl=47 time=70.9 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=13 ttl=47 time=70.6 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=14 ttl=47 time=67.1 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=15 ttl=47 time=62.7 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=16 ttl=47 time=69.3 ms  
1508 bytes from a23-215-0-138.deploy.static.akamaitechnologies.com (23.215.0.138): icmp_seq=17 ttl=47 time=64.5 ms  
^C  
— example.com ping statistics —  
17 packets transmitted, 17 received, 0% packet loss, time 16062ms  
rtt min/avg/max/mdev = 59.360/67.863/83.409/6.473 ms  
  
(kali@kali)~  
$ ping -s 2000 example.com  
  
PING example.com (96.7.128.198) 2000(2028) bytes of data.  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=1 ttl=51 time=192 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=2 ttl=51 time=121 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=3 ttl=51 time=119 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=4 ttl=51 time=133 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=5 ttl=51 time=122 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=6 ttl=51 time=133 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=7 ttl=51 time=124 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=8 ttl=51 time=151 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=9 ttl=51 time=133 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=10 ttl=51 time=116 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=11 ttl=51 time=127 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=12 ttl=51 time=118 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=13 ttl=51 time=118 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=14 ttl=51 time=120 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=15 ttl=51 time=120 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=16 ttl=51 time=119 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=17 ttl=51 time=119 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=18 ttl=51 time=159 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=19 ttl=51 time=115 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=20 ttl=51 time=119 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=21 ttl=51 time=115 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=22 ttl=51 time=126 ms
```

```
kali@kali: ~  
File Actions Edit View Help  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=30 ttl=51 time=120 ms  
^C  
— example.com ping statistics —  
30 packets transmitted, 30 received, 0% packet loss, time 29113ms  
rtt min/avg/max/mdev = 113.642/126.202/191.549/15.656 ms  
  
(kali@kali)~  
$ ping -s 2000 -M do example.com  
  
PING example.com (23.192.228.84) 2000(2028) bytes of data.  
ping: sendmsg: Message too long  
ping: sendmsg: Message too long  
ping: sendmsg: Message too long  
ping: sendmsg: Message too long  
ping: sendmsg: Message too long  
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ping: sendmsg: Message too long  
ping: sendmsg: Message too long  
ping: sendmsg: Message too long  
^C  
— example.com ping statistics —  
9 packets transmitted, 0 received, +9 errors, 100% packet loss, time 8191ms  
  
(kali@kali)~  
$ ping 127.0.0.1  
  
PING 127.0.0.1 (127.0.0.1) 56(84) bytes of data.  
64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=0.080 ms  
64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.138 ms  
64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.137 ms  
64 bytes from 127.0.0.1: icmp_seq=4 ttl=64 time=0.131 ms  
64 bytes from 127.0.0.1: icmp_seq=5 ttl=64 time=0.050 ms  
^C  
— 127.0.0.1 ping statistics —  
5 packets transmitted, 5 received, 0% packet loss, time 4074ms  
rtt min/avg/max/mdev = 0.050/0.109/0.138/0.034 ms  
  
(kali@kali)~  
$ ping -I eth0 google.com  
  
PING google.com (142.250.80.110) from 192.168.64.3 eth0: 56(84) bytes of data.  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=1 ttl=115 time=83.6 ms
```

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)~  
$ ping -s 2000 example.com  
  
PING example.com (96.7.128.198) 2000(2028) bytes of data.  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=1 ttl=51 time=192 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=2 ttl=51 time=121 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=3 ttl=51 time=119 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=4 ttl=51 time=133 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=5 ttl=51 time=122 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=6 ttl=51 time=133 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=7 ttl=51 time=124 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=8 ttl=51 time=151 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=9 ttl=51 time=133 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=10 ttl=51 time=116 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=11 ttl=51 time=127 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=12 ttl=51 time=118 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=13 ttl=51 time=118 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=14 ttl=51 time=120 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=15 ttl=51 time=120 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=16 ttl=51 time=119 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=17 ttl=51 time=119 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=18 ttl=51 time=159 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=19 ttl=51 time=115 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=20 ttl=51 time=119 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=21 ttl=51 time=115 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=22 ttl=51 time=126 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=23 ttl=51 time=114 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=24 ttl=51 time=119 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=25 ttl=51 time=121 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=26 ttl=51 time=123 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=27 ttl=51 time=126 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=28 ttl=51 time=129 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=29 ttl=51 time=116 ms  
2008 bytes from a96-7-128-198.deploy.static.akamaitechnologies.com (96.7.128.198): icmp_seq=30 ttl=51 time=120 ms  
^C  
— example.com ping statistics —  
30 packets transmitted, 30 received, 0% packet loss, time 29113ms  
rtt min/avg/max/mdev = 113.642/126.202/191.549/15.656 ms  
  
(kali@kali)~  
$ ping -s 2000 -M do example.com  
  
PING example.com (23.192.228.84) 2000(2028) bytes of data.
```



```
kali@kali: ~  
File Actions Edit View Help  
  
(kali@kali)~  
$ ping -i eth0 google.com  
PING google.com (142.250.80.110) from 192.168.64.3 eth0: 56(84) bytes of data.  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=1 ttl=115 time=83.6 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=2 ttl=115 time=125 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=3 ttl=115 time=103 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=4 ttl=115 time=130 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=5 ttl=115 time=154 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=6 ttl=115 time=114 ms  
^C  
  google.com ping statistics ---  
6 packets transmitted, 6 received, 0% packet loss, time 5021ms  
rtt min/avg/max/mdev = 83.592/118.373/154.472/22.112 ms  
  
(kali@kali)~  
$ ping -t 3 google.com  
PING google.com (142.250.80.110) 56(84) bytes of data.  
^C  
  google.com ping statistics ---  
84 packets transmitted, 0 received, 100% packet loss, time 84976ms  
  
(kali@kali)~  
$ ping google.com > ping_log.txt  
^C  
  
(kali@kali)~  
$ timeout 30 ping google.com > ping_log.txt  
  
(kali@kali)~  
$ ping -c 50 google.com  
PING google.com (142.250.80.110) 56(84) bytes of data.  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=1 ttl=115 time=58.3 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=2 ttl=115 time=61.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=3 ttl=115 time=52.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=4 ttl=115 time=61.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=5 ttl=115 time=63.3 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=6 ttl=115 time=64.5 ms
```

```
kali@kali: ~  
File Actions Edit View Help  
  
(kali@kali)~  
$ ping -c 50 google.com  
PING google.com (142.250.80.110) 56(84) bytes of data.  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=1 ttl=115 time=58.3 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=2 ttl=115 time=61.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=3 ttl=115 time=52.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=4 ttl=115 time=61.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=5 ttl=115 time=63.3 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=6 ttl=115 time=64.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=7 ttl=115 time=57.8 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=8 ttl=115 time=55.6 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=9 ttl=115 time=62.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=10 ttl=115 time=55.1 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=11 ttl=115 time=52.7 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=12 ttl=115 time=54.8 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=13 ttl=115 time=57.6 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=14 ttl=115 time=51.0 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=15 ttl=115 time=61.6 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=16 ttl=115 time=54.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=17 ttl=115 time=54.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=18 ttl=115 time=52.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=19 ttl=115 time=77.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=20 ttl=115 time=54.9 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=21 ttl=115 time=57.6 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=22 ttl=115 time=54.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=23 ttl=115 time=56.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=24 ttl=115 time=52.1 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=25 ttl=115 time=83.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=26 ttl=115 time=71.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=27 ttl=115 time=82.8 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=28 ttl=115 time=58.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=29 ttl=115 time=59.6 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=30 ttl=115 time=56.7 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=31 ttl=115 time=52.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=32 ttl=115 time=54.0 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=33 ttl=115 time=53.4 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=34 ttl=115 time=52.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=35 ttl=115 time=58.6 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=36 ttl=115 time=59.3 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=37 ttl=115 time=61.1 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=38 ttl=115 time=66.2 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=39 ttl=115 time=56.4 ms
```

```
kali@kali: ~  
File Actions Edit View Help  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=44 ttl=115 time=54.0 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=45 ttl=115 time=63.7 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=46 ttl=115 time=56.7 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=47 ttl=115 time=53.1 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=48 ttl=115 time=54.5 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=49 ttl=115 time=54.7 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=50 ttl=115 time=64.6 ms  
  
— google.com ping statistics —  
50 packets transmitted, 50 received, 0% packet loss, time 49164ms  
rtt min/avg/max/mdev = 50.964/59.693/83.234/7.631 ms  
  
(kali@kali)~  
$ timeout 600 ping -i 5 google.com > long_ping_log.txt  
^C  
  
(kali@kali)~  
$ ping 142.250.190.142  
PING 142.250.190.142 (142.250.190.142) 56(84) bytes of data.  
64 bytes from 142.250.190.142: icmp_seq=1 ttl=112 time=71.0 ms  
64 bytes from 142.250.190.142: icmp_seq=2 ttl=112 time=83.9 ms  
64 bytes from 142.250.190.142: icmp_seq=3 ttl=112 time=69.2 ms  
64 bytes from 142.250.190.142: icmp_seq=4 ttl=112 time=77.9 ms  
^C  
— 142.250.190.142 ping statistics —  
4 packets transmitted, 4 received, 0% packet loss, time 3007ms  
rtt min/avg/max/mdev = 69.219/75.506/83.865/5.815 ms  
  
(kali@kali)~  
$ ping google.com  
PING google.com (142.250.80.110) 56(84) bytes of data.  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=1 ttl=115 time=59.6 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=2 ttl=115 time=61.9 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=3 ttl=115 time=67.6 ms  
64 bytes from lga34s36-in-f14.1e100.net (142.250.80.110): icmp_seq=4 ttl=115 time=86.3 ms  
^C  
— google.com ping statistics —  
4 packets transmitted, 4 received, 0% packet loss, time 3010ms  
rtt min/avg/max/mdev = 59.563/68.827/86.291/10.496 ms  
  
(kali@kali)~  
$
```