

Microsoft Windows [Version 10.0.26120.4741]
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C:\Users\Yahya>ping google.com

Pinging google.com [142.250.201.78] with 32 bytes of data:
Reply from 142.250.201.78: bytes=32 time=32ms TTL=117
Reply from 142.250.201.78: bytes=32 time=26ms TTL=117
Reply from 142.250.201.78: bytes=32 time=24ms TTL=117
Reply from 142.250.201.78: bytes=32 time=27ms TTL=117

Ping statistics for 142.250.201.78:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 24ms, Maximum = 32ms, Average = 27ms



No.	Time	Source	Destination	Protocol	Length	Info
585	19.784839	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=3/768, ttl=128 (reply in 586)
586	19.817501	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=3/768, ttl=117 (request in 585)
588	20.800459	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=4/1024, ttl=128 (reply in 589)
589	20.826575	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=4/1024, ttl=117 (request in 588)
591	21.821072	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=5/1280, ttl=128 (reply in 592)
592	21.845085	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=5/1280, ttl=117 (request in 591)
596	22.841382	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=6/1536, ttl=128 (reply in 597)
597	22.868290	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=6/1536, ttl=117 (request in 596)

```
> 000. .... = Flags: 0x0
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 128
Protocol: ICMP (1)
Header Checksum: 0xae4 [validation disabled]
[Header checksum status: Unverified]
Source Address: 192.168.1.7
Destination Address: 142.250.201.78
[Stream index: 14]
> Internet Control Message Protocol
```

0000	62	6c	63	87	7f	b3	28	cd	c4	a4	50	eb	08	00	45	00	blc	...(-	..P	..E
0010	00	3c	73	e4	00	00	80	01	ac	e4	c0	a8	01	07	8e	fa	<s
0020	c9	4e	08	00	4d	58	00	01	00	03	61	62	63	64	65	66	N	-MX-	..	abcdef
0030	67	68	69	6a	6b	6c	6d	6e	6f	70	71	72	73	74	75	76	g	hijklmn	opqrstuvwxyz	wabcdefghijklmno
0040	77	61	62	63	64	65	66	67	68	69							h	i	j	k



icmp

No.	Time	Source	Destination	Protocol	Length	Info
→ 585	19.784839	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=3/768, ttl=128 (reply in 586)
← 586	19.817501	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=3/768, ttl=117 (request in 585)
588	20.800459	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=4/1024, ttl=128 (reply in 589)
589	20.826575	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=4/1024, ttl=117 (request in 588)
591	21.821072	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=5/1280, ttl=128 (reply in 592)
592	21.845085	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=5/1280, ttl=117 (request in 591)
596	22.841382	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=6/1536, ttl=128 (reply in 597)
597	22.868290	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=6/1536, ttl=117 (request in 596)

> Frame 585: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface \Device\NPF_{05950E6A-671C-450C-A8EB-437B96BA5C74},
 > Ethernet II, Src: ChongqingFug_a4:50:eb (28:cd:c4:a4:50:eb), Dst: 62:6c:63:87:7f:b3 (62:6c:63:87:7f:b3)
 > Internet Protocol Version 4, Src: 192.168.1.7, Dst: 142.250.201.78
 < Internet Control Message Protocol
 Type: 8 (Echo (ping) request)
 Code: 0
 Checksum: 0xd58 [correct]
 [Checksum Status: Good]
 Identifier (BE): 1 (0x0001)
 Identifier (LE): 256 (0x0100)
 Sequence Number (BE): 3 (0x0003)
 Sequence Number (LE): 768 (0x0300)
 [Response frame: 586]
 > Data (32 bytes)

0000	62 6c 63 87 7f b3 28 cd c4 a4 50 eb 08 00 45 00	blc...(. .P...E
0010	00 3c 73 e4 00 00 00 01 ac e4 c0 a8 01 07 8e fa	<s.....
0020	c9 4e 08 00 4d 58 00 01 00 03 61 62 63 64 65 66	:N-MX... abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuvwxyz
0040	77 61 62 63 64 65 66 67 68 69	wabcefg hi



No.	Time	Source	Destination	Protocol	Length	Info
→ 585	19.784839	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=3/768, ttl=128 (reply in 586)
← 586	19.817501	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=3/768, ttl=117 (request in 585)
588	20.800459	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=4/1024, ttl=128 (reply in 589)
589	20.826575	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=4/1024, ttl=117 (request in 588)
591	21.821072	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=5/1280, ttl=128 (reply in 592)
592	21.845085	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=5/1280, ttl=117 (request in 591)
596	22.841382	192.168.1.7	142.250.201.78	ICMP	74	Echo (ping) request id=0x0001, seq=6/1536, ttl=128 (reply in 597)
597	22.868290	142.250.201.78	192.168.1.7	ICMP	74	Echo (ping) reply id=0x0001, seq=6/1536, ttl=117 (request in 596)

> Frame 586: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface \Device\NPF_{05950E6A-671C-450C-A8EB-437B968A5C74},
 > Ethernet II, Src: 62:6c:63:87:7f:b3 (62:6c:63:87:7f:b3), Dst: ChongqingFug_a4:50:eb (28:cde:c4:a4:50:eb)
 > Internet Protocol Version 4, Src: 142.250.201.78, Dst: 192.168.1.7
 > Internet Control Message Protocol
 Type: 0 (Echo (ping) reply)
 Code: 0
 Checksum: 0x5558 [correct]
 [Checksum Status: Good]
 Identifier (BE): 1 (0x0001)
Identifier (LE): 256 (0x0100)
 Sequence Number (BE): 3 (0x0003)
 Sequence Number (LE): 768 (0x0300)
 [Request frame: 585]
 [Response time: 32.662 ms]
 > Data (32 bytes)

0000	28 cd c4 a4 50 eb 62 6c 63 87 7f b3 08 00 45 00	(...P`bl c.....E
0010	00 3c 00 00 00 00 75 01 2b c9 8e fa c9 4e c0 a8	<....U. +....N..
0020	01 07 00 00 55 58 00 01 00 03 61 62 63 64 65 66	...UX... abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcefg hi

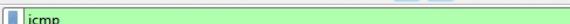
Microsoft Windows [Version 10.0.26120.4741]
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C:\Users\Yahya>tracert google.com

Tracing route to google.com [142.250.184.174]
over a maximum of 30 hops:

1	3 ms	3 ms	3 ms	routertecnico.home [192.168.1.1]
2	*	*	*	Request timed out.
3	14 ms	14 ms	11 ms	10.137.197.97
4	28 ms	16 ms	17 ms	10.255.48.74
5	17 ms	17 ms	15 ms	72.14.209.204
6	26 ms	17 ms	18 ms	192.178.247.157
7	26 ms	19 ms	15 ms	192.178.81.220
8	37 ms	26 ms	25 ms	142.251.55.147
9	25 ms	24 ms	24 ms	108.170.226.235
10	38 ms	27 ms	25 ms	142.250.213.125
11	27 ms	25 ms	222 ms	mad07s23-in-f14.1e100.net [142.250.184.174]

Trace complete.



No.	Time	Source	Destination	Protocol	Length	Info
454	14.024327	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=40/10240, ttl=1 (no response found!)
455	14.027816	192.168.1.1	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
456	14.029569	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=41/10496, ttl=1 (no response found!)
457	14.032526	192.168.1.1	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
458	14.035136	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=42/10752, ttl=1 (no response found!)
459	14.038496	192.168.1.1	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
462	15.057341	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=43/11008, ttl=2 (no response found!)
495	18.907652	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=44/11264, ttl=2 (no response found!)
529	22.911757	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=45/11520, ttl=2 (no response found!)
530	26.922716	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=46/11776, ttl=3 (no response found!)
531	26.936975	10.137.197.97	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
532	26.938970	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=47/12032, ttl=3 (no response found!)
533	26.953042	10.137.197.97	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
534	26.954780	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=48/12288, ttl=3 (no response found!)
535	26.965715	10.137.197.97	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
550	32.494187	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=49/12544, ttl=4 (no response found!)
551	32.522519	10.255.48.74	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
552	32.524893	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=50/12800, ttl=4 (no response found!)
553	32.541389	10.255.48.74	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
554	32.544558	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=51/13056, ttl=4 (no response found!)
555	32.561830	10.255.48.74	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
561	38.063829	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=52/13312, ttl=5 (no response found!)
562	38.081383	72.14.209.204	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
563	38.083044	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=53/13568, ttl=5 (no response found!)
564	38.100796	72.14.209.204	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
565	38.102594	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=54/13824, ttl=5 (no response found!)
566	38.117852	72.14.209.204	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
620	43.652577	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=55/14080, ttl=6 (no response found!)
621	43.679000	192.178.247.157	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
622	43.682163	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=56/14336, ttl=6 (no response found!)
623	43.699895	192.178.247.157	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
624	43.701275	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=57/14592, ttl=6 (no response found!)
625	43.719816	192.178.247.157	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
631	49.277190	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=58/14848, ttl=7 (no response found!)
632	49.303774	192.178.81.220	192.168.1.7	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)
633	49.305664	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=59/15104, ttl=7 (no response found!)

> Frame 454: 106 bytes on wire (848 bits), 106 bytes captured (848 bits) on interface \Device\NPF_{05950E6A-671C-450C-A8EB-437B96BA5C74}

> Ethernet II, Src: ChongqingFug_a4:50:eb (28:cd:c4:a4:50:eb), Dst: 62:6c:63:87:7f:b3 (62:6c:63:87:7f:b3)

> Internet Protocol Version 4, Src: 192.168.1.7, Dst: 142.250.184.174

> Internet Control Message Protocol

```
Type: 8 (Echo (ping) request)
Code: 0
Checksum: 0xf7d6 [correct]
[Checksum Status: Good]
Identifier (BE): 1 (0x0001)
Identifier (LE): 256 (0x0100)
Sequence Number (BE): 40 (0x0028)
Sequence Number (LE): 10240 (0x2800)
> [No response seen]
> Data (64 bytes)
```

0000	62	6c	63	87	7f	b3	28	cd	c4	a4	50	eb	08	00	45	00	blc... (..P-E
0010	00	5c	7f	3b	00	00	01	01	31	0e	c0	a8	01	07	8e	fa	\`.;.... 1.....
0020	b8	ae	08	00	f7	d6	00	01	00	28	00	00	00	00	00	00(.....
0030	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00(.....
0040	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00(.....
0050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00(.....
0060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00(.....



No.	Time	Source	Destination	Protocol	Length	Info
454	14.024327	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=40/10240, ttl=1 (no response found!)
455	14.027816	192.168.1.1	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
456	14.029569	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=41/10496, ttl=1 (no response found!)
457	14.032526	192.168.1.1	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
458	14.035136	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=42/10752, ttl=1 (no response found!)
459	14.038406	192.168.1.1	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
462	15.057341	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=43/11008, ttl=2 (no response found!)
495	18.907652	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=44/11264, ttl=2 (no response found!)
529	22.911757	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=45/11520, ttl=2 (no response found!)
530	26.922716	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=46/11776, ttl=3 (no response found!)
531	26.936975	10.137.197.97	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
532	26.938970	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=47/12032, ttl=3 (no response found!)
533	26.953042	10.137.197.97	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
534	26.954780	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=48/12288, ttl=3 (no response found!)
535	26.965715	10.137.197.97	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
550	32.494187	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=49/12544, ttl=4 (no response found!)
551	32.522519	10.255.48.74	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
552	32.524893	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=50/12800, ttl=4 (no response found!)
553	32.541389	10.255.48.74	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
554	32.544538	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=51/13056, ttl=4 (no response found!)
555	32.561830	10.255.48.74	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
561	38.063829	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=52/13312, ttl=5 (no response found!)
562	38.081383	72.14.209.204	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
563	38.083044	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=53/13568, ttl=5 (no response found!)
564	38.100796	72.14.209.204	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
565	38.102594	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=54/13824, ttl=5 (no response found!)
566	38.117852	72.14.209.204	192.168.1.7	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
620	43.652577	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=55/14080, ttl=6 (no response found!)
621	43.679000	192.178.247.157	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
622	43.682163	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=56/14336, ttl=6 (no response found!)
623	43.699895	192.178.247.157	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
624	43.701275	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=57/14592, ttl=6 (no response found!)
625	43.719816	192.178.247.157	192.168.1.7	ICMP	134	Time-to-live exceeded (Time to live exceeded in transit)
631	49.277190	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=58/14848, ttl=7 (no response found!)
632	49.303774	192.178.81.220	192.168.1.7	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)
633	49.305664	192.168.1.7	142.250.184.174	ICMP	106	Echo (ping) request id=0x0001, seq=59/15104, ttl=7 (no response found!)

> Frame 455: 134 bytes on wire (1072 bits), 134 bytes captured (1072 bits) on interface \Device\NPF_{05950E6A-671C-450C-A8EB-437B96BA

> Ethernet II, Src: ChongqingFug_a4:50:eb (62:6c:63:87:7f:b3), Dst: ChongqingFug_a4:50:eb (28:cd:c4:a4:50:eb)

> Internet Protocol Version 4, Src: 192.168.1.1, Dst: 192.168.1.7

Internet Control Message Protocol

Type: 11 (Time-to-live exceeded)

Code: 0 (Time to live exceeded in transit)

Checksum: 0xf4ff [correct]

[Checksum Status: Good]

Unused: 00000000

> Internet Protocol Version 4, Src: 192.168.1.7, Dst: 142.250.184.174

Internet Control Message Protocol

Type: 8 (Echo (ping) request)

Code: 0

Checksum: 0xf7d6 [unverified] [in ICMP error packet]

[Checksum Status: Unverified]

0000	28 cd c4 a4 50 eb 62 6c	63 87 7f b3 08 00 45 c0	(...P`b1 c.....E-
0010	00 78 5d 60 00 00 40 01	99 0c c0 a8 01 01 c0 a8	x)`@.....
0020	01 07 0b 00 f4 ff 00	00 00 45 00 00 5c 7f 30E`\\;
0030	00 00 01 01 31 0e c0 a8	01 07 8e fa b8 ae 08 001.....
0040	f7 d6 00 01 00 28 00 00	00 00 00 00 00 00 00 00(.....
0050	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00
0060	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00
0070	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00
0080	00 00 00 00 00 00 00 00	

Analysis of ICMP Traffic

1. First ICMP Request Packet Analysis

Looking at the first ICMP request packet:

a. Protocol and Protocol Number:

- Protocol: **ICMP** (Internet Control Message Protocol)
- Protocol Number: **1** (as shown in the IP header)

b. Type and Code Number Values:

- Type: **8** (Echo Request)
- Code: **0** (as shown in the packet details)

c. Checksum Number and Status:

- Checksum: **0x4d58** [correct]
- Checksum Status: **Good** (verified in the packet details)

2. Corresponding ICMP Reply Packet Analysis

Looking at the ICMP reply packet (packet #586 in Image 2):

d. Type and Code Number Values:

- Type: **0** (Echo Reply)
- Code: **0**

e. Checksum and Identifier Field Sizes:

- Checksum field: 6 bytes
- Identifier field: 6 bytes (BE: 1, LE: 256 as shown in the details)
 - *Each character (i.e., 0,x,5,5,5, and 8) in the checksum represents a byte, therefore the checksum is a total of 6 bytes. This also holds true for the identifier, which is 6 bytes respectively*

3. Traceroute ICMP Messages Analysis

From the traceroute command output and Wireshark capture:

f. IP Address of Host PC:

- 192.168.1.7 (source address shown in the Wireshark captures)

g. IP Address of Target Destination Host:

- 142.250.184.174 (google.com - final destination shown in traceroute output)

Additional Observations

Ping Analysis:

- The ping test shows successful communication between 192.168.1.7 and 142.250.201.78 (google.com)
- Round-trip times are consistent (24-27ms average)
- All packets show proper ICMP echo request/reply behavior

Traceroute Analysis:

- Shows the complete path to google.com through 30 hops

- Reveals "Time to live exceeded in transit" messages for intermediate hops
- Final destination reached at 142.250.184.174
- Some intermediate routers show different IP addresses, indicating load balancing or multiple paths

Security Implications:

The captures show normal ICMP behavior for diagnostic purposes. However, for investigation into potential ICMP attacks, we should also look for:

- Unusual ICMP packet sizes
- High frequency ICMP floods
- ICMP packets with suspicious payloads
- ICMP redirect or destination unreachable messages that might indicate reconnaissance

The traffic shown in these captures appears to be legitimate diagnostic traffic rather than malicious ICMP attacks.