



## 如何得知使用者 目前使用之 Public IP

## What is my ip

Q

工具

Google	What is my ip	× 🔱 🙃
	Q 全部 □ 圖片 ● 影片 ② 地圖 ■ 書籍 :更多	:
	約有 4,390,000,000 項結果 (搜尋時間:0.29 秒)	
	提示: Limit this search to <mark>English</mark> language results. Learn more abo	out filtering by language
	S What Is My IP Address https://whatismyipaddress.com ← 翻譯這個網頁 :	
	What Is My IP Address - See Your Public Address - If	Pv4 & IPv6
	Find out what your public IPv4 and IPv6 address is revealing about you! My	/ IP address
	IP Lookup · Update My IP Location · IP Addresses: Archives · Internet Spee	d Test
	WhatIsMyIP.com https://www.whatismyip.com ← 翻譯這個網頁 :	
	What Is My IP? Best Way To Check Your Public IP Ac	Idress
	Use this IP address lookup tool to find the location of any IP address. Get d originating city, state/region, postal/zip code, country name,	letails such as the
	我的IP位址查詢 https://www.whatismyip.com.tw > · 翻譯這個網頁 :	
	What is my IP?	
	My IP address is. 66.249.72.200 US.	

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## https://ipinfo.io/

#### 網頁版

https://ipinfo.io/



\* curl https://ipinfo.io/

•	140.112.3.82	Q								
"	<b>ip</b> : "140.112.3.82",									
"	hostname: "davisyoupc.cc.ntu.edu.tw",									
"	city: "Taipei",									
"	region: "Taiwan",									
"	country: "TW",									
"	loc: "25.0478,121.5319",									
"	org: "AS17716 National Taiwan University",									
"	timezone: "Asia/Taipei",									
-										
Y	Your IP 8.8.4.4 AS15169 1.1.1.14									

# root@ubuntu2204:~# curl https://ipinfo.io/ { "ip": "140.112.3.82", "hostname": "davisyoupc.cc.ntu.edu.tw", "city": "Taipei", "region": "Taiwan", "country": "TW", "loc": "25.0478,121.5319", "org": "AS17716 National Taiwan University", "timezone": "Asia/Taipei", "readme": "https://ipinfo.io/missingauth"

## TelnetMyIP.com

##"

#### \* telnet TelnetMyIP.com

root@ubuntu2204:~# telnet TelnetMyIP.com Trying 3.19.111.8... Connected to TelnetMyIP.com. Escape character is '^]'.

Your IP Address is 140.112.3.82 (31373) 'comment": "## ##"

"family": "ipv4", "ip": "140.112.3.82", "port": "31373", "protocol": "telnet", "version": "v1.3.0", "website": "https://github.com/packetsar/checkmyip", "sponsor": "Sponsored by ConvergeOne, https://www.convergeone.com/"

#### ssh TelnetMyIP.com

root@ubuntu2204:~# ssh TelnetMyIP.com 'comment": "## Your IP Address is 140.112.3.82 (16872) family": "ipv4", ip": "140.112.3.82", port": "16872" protocol": "ssh" 'version": "v1.3.0", 'website": "https://github.com/packetsar/checkmyip",

#### TraceRoute

## TraceRoute 之限制

- ∗目的 IP 需有回應 ping, TraceRoute 才可到達. (For Windows)
- \* 台大資工首頁

25 https://www.csie.ntu.edu.tw

#### 臺灣大學資訊工程學系暨研究所

Department of Computer Science & Information Engineering

#### \* Ping 有回應

C. (USE)	ts≀user>ping www	sie.niu	.euu.iw		
Ping ww 同覇白	w.csie.ntu.edu. 140 112 30 260	.tw [140.1] 位元组-32	12.30.26] 時期—1mg	(使用 32 TTI-58	位元組的資料)
回覆目	140.112.30.26:	位元組=32	時間=1ms	TTL=58	
回覆目	140.112.30.26:	位元組=32	時間=lms	TTL=58	

C:\Users\user>tracert -d www.csie.ntu.edu.tw

\* TraceRoute 可到達

	垠 30 www.c	1個問 csie	饉黑 <u>占上</u> .ntu.∈	edu.	tw	[14	40.1	112.30.26] 的路由:
1 2 3 4 5	<1 1 1 8 1	ms ms ms ms ms	<1 <1 <1 <1 <1	ms ms ms ms ms		<1 <1 <1 1	ms ms ms ms ms	10.4.1.1 163.28.16.254 140.112.0.69 140.112.0.201 140.112.0.217
6 7	3 1	ms ms	2 1	ms ms		2 <1	ms ms	140.112.149.122 140.112.30.26

## TraceRoute 封包觀察 (Windows)

- ∗ 一次發出三個 Ping Request 封包 with TTL= 1, 2, 3 ...,每 次間隔 1 秒
- ★ 封包經過路由器(Routing) TTL 1, When TTL=0 封包被丟 棄時,路由器需發出 TTL Exceeded To Src IP

∛o.	Time	TTL	Source	Destination	Protocol	Length	Info							
	0.000000	1	10.4.1.2	140.112.30.26	ICMP	106	Echo	(ping)	request	id=0x0001,	seq=53/13568,	ttl=1	(no r	espons
2	2 0.000166	64,1	10.4.1.1	10.4.1.2	ICMP	134	Time-	to-liv	e exceede	d (Time to	live exceeded	in tran	sit)	
-	3 0.001233	1	10.4.1.2	140.112.30.26	ICMP	106	Echo	(ping)	request	id=0x0001,	seq=54/13824,	ttl=1	(no r	espons
4	0.001327	64,1	10.4.1.1	10.4.1.2	ICMP	134	Time-	to-liv	e exceede	d (Time to	live exceeded	in tran	sit)	
C -	0.004422	1	10.4.1.2	140.112.30.26	ICMP	106	Echo	(ping)	request	id=0x0001,	seq=55/14080,	ttl=1	(no r	espons
(	5 0.004632	64,1	10.4.1.1	10.4.1.2	ICMP	134	Time-	to-liv	e exceede	d (Time to	live exceeded	in tran	sit)	
	1.018326	2	10.4.1.2	140.112.30.26	ICMP	106	Echo	(ping)	request	id=0x0001,	seq=56/14336,	ttl=2	(no r	espons
8	3 1.019269	254,1	163.28.16.254	10.4.1.2	ICMP	110	Time-	to-liv	e exceede	d (Time to	live exceeded	in tran	sit)	
9	1.020508	2	10.4.1.2	140.112.30.26	ICMP	106	Echo	(ping)	request	id=0x0001,	seq=57/14592,	ttl=2	(no r	espons
- 10	0 1.021183	254,1	163.28.16.254	10.4.1.2	ICMP	110	Time-	to-liv	e exceede	d (Time to	live exceeded	in tran	sit)	
11	L 1.022073	2	10.4.1.2	140.112.30.26	ICMP	106	Echo	(ping)	request	id=0x0001,	seq=58/14848,	ttl=2	(no r	espons
12	2 1.024214	254,1	163.28.16.254	10.4.1.2	ICMP	110	Time-	to-liv	e exceede	d (Time to	live exceeded	in tran	sit)	
13	32.033901	3	10.4.1.2	140.112.30.26	ICMP	106	Echo	(ping)	request	id=0x0001,	seq=59/15104,	ttl=3	(no r	espons
14	12.034653	253,1	140.112.0.69	10.4.1.2	ICMP	110	Time-	to-liv	e exceede	d (Time to	live exceeded	in tran	sit)	
15	2.035636	3	10.4.1.2	140.112.30.26	ICMP	106	Echo	(ping)	request	id=0x0001,	seq=60/15360,	ttl=3	(no r	espons
- 10	5 2.036620	253,1	140.112.0.69	10.4.1.2	ICMP	110	Time-	to-liv	e exceede	d (Time to	live exceeded	in tran	sit)	
17	2.037504	3	10.4.1.2	140.112.30.26	ICMP	106	Echo	(ping)	request	id=0x0001,	seq=61/15616,	ttl=3	(no r	espons
18	3 2.038245	253,1	140.112.0.69	10.4.1.2	ICMP	110	Time-	to-liv	e exceede	d (Time to	live exceeded	in tran	sit)	

## TraceRoute 封包觀察 (Windows)

# Node7(TTL=7) 已到達 www.csie.ntu.edu.tw 有回應 Ping

No	<u>م</u>	Time	TTL	Source	Destination	Protocol	I Length Info
	31	5.080953	6	10.4.1.2	140.112.30.26	ICMP	106 Echo (ping) request id=0x0001, seq=68/17408, ttl=6 (no
	32	5.088550	248,1	140.112.149.122	10.4.1.2	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit
	33	5.089491	6	10.4.1.2	140.112.30.26	ICMP	106 Echo (ping) request id=0x0001, seq=69/17664, ttl=6 (no
	34	5.094509	248,1	140.112.149.122	10.4.1.2	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit
	35	5.095390	6	10.4.1.2	140.112.30.26	ICMP	106 Echo (ping) request id=0x0001, seq=70/17920, ttl=6 (no
	36	5.099691	248,1	140.112.149.122	10.4.1.2	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit
	37	6.112039	7	10.4.1.2	140.112.30.26	ICMP	106 Echo (ping) request id=0x0001, seq=71/18176, ttl=7 (rep
	38	6.113151	58	140.112.30.26	10.4.1.2	ICMP	106 Echo (ping) reply id=0x0001, seq=71/18176, ttl=58 (re
	39	6.114395	7	10.4.1.2	140.112.30.26	ICMP	106 Echo (ping) request id=0x0001, seq=72/18432, ttl=7 (rep
	40	6.115353	58	140.112.30.26	10.4.1.2	ICMP	106 Echo (ping) reply id=0x0001, seq=72/18432, ttl=58 (re
	41	6.116647	7	10.4.1.2	140.112.30.26	ICMP	106 Echo (ping) request id=0x0001, seq=73/18688, ttl=7 (rep
L	42	6.117645	58	140.112.30.26	10.4.1.2	ICMP	106 Echo (ping) reply id=0x0001, seq=73/18688, ttl=58 (re

## TraceRoute 之限制

- ⋆ 只要目的 IP 不回應 ping, TraceRoute 就永遠無法 到達. (For Windows)
- \* 台大首頁

C 😋 ntu.edu.tw



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\* Ping 無回應 C:\Users\user>ping www.ntu.edu.tw Ping www.ntu.edu.tw [140.112.8.11

Ping www.ntu.edu.tw [140.112.8.116] (使用 32 位元組的資料): 要求等候逾時。 要求等候逾時。

°C:\Users\user>tracert -d www.ntu.edu.tw

\* TraceRoute 永遠無法到達

| 佐上限 30 個躍點上 追蹤 www.ntu.edu.tw [140.112.8.116] 的路由:

1 2 3 4 5	<1 ms <1 ms 1 ms 1 ms 1 ms	<1 ms <1 ms <1 ms <1 ms 1 ms	<1 ms 2 ms <1 ms <1 ms 1 ms 1 ms	10.4.1.1 163.28.16.254 140.112.0.69 140.112.0.201 140.112.0.209
2	1 MS *	1 M.S *	دير I *	- 140.112.0.203
ъ	*	*	ф.	要水寺候邇時
- 7	*	*	*	要求等候逾時

## TraceRoute 封包觀察 (Windows)

## Node6(TTL=6) 已到達 www.ntu.edu.tw 卻不回應 Ping

No.	. Time	TTL	Source	Destination	Protocol	J Length Info
	25 4.053755	5	10.4.1.2	140.112.8.116	ICMP	106 Echo (ping) request id=0x0001, seq=86/22016, ttl=5 (no respon
	26 4.054781	250,1	140.112.0.209	10.4.1.2	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit)
	27 4.055872	5	10.4.1.2	140.112.8.116	ICMP	106 Echo (ping) request id=0x0001, seq=87/22272, ttl=5 (no respon
	28 4.057326	250,1	140.112.0.209	10.4.1.2	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit)
	29 4.058270	5	10.4.1.2	140.112.8.116	ICMP	106 Echo (ping) request id=0x0001, seq=88/22528, ttl=5 (no respon
I	30 4.059310	250.1	140.112.0.209	10.4.1.2	ТСМР	70 Time-to-live exceeded (Time to live exceeded in transit)
	31 5.069270	6	10.4.1.2	140.112.8.116	ICMP	106 Echo (ping) request id=0x0001, seq=89/22784, ttl=6 (no respon
	32 8.757156	6	10.4.1.2	140.112.8.116	ICMP	106 Echo (ping) request id=0x0001, seq=90/23040, ttl=6 (no respon
	33 12.7572	6	10.4.1.2	140.112.8.116	ICMP	106 Echo (ping) request id=0x0001, seq=91/23296, ttl=6 (no respon
	34 16.7607	7	10.4.1.2	140.112.8.116	ICMP	106 Echo (ping) request id=0x0001, seq=92/23552, ttl=7 (no respon
	35 20.7571	7	10.4.1.2	140.112.8.116	ICMP	106 Echo (ping) request id=0x0001, seq=93/23808, ttl=7 (no respon
	36 24.7571	7	10.4.1.2	140.112.8.116	ICMP	106 Echo (ping) request id=0x0001, seq=94/24064, ttl=7 (no respon

#### Linux Ubuntu 22.04

\* 台大資工

## TraceRoute 封包觀察 (Linux)

#### \* 一次發出三個 UDP 封包 with TTL= 1, 2, 3 ..., 每次間隔 0.02 秒

#### \* UDP Src Port 固定, Dst Port 每次加1

No.	Time	TTL	Source	Src Port	Destination	Dest Port	Protocol	Length	Info								
	1 0.000000	1	163.28.16.211	47582	140.112.30.26	33434	UDP	51	47582 →	33434 Lei	n=9						
	2 0.000732	255,1	163.28.16.254	47582	163.28.16.211	33434	ICMP	110	Time-to	-live exc	eeded	(Time	to li	ive e	exceeded	in	transit)
	3 0.000792	1	163.28.16.211	47582	140.112.30.26	33434	UDP	51	47582 →	33434 Lei	n=9						
	4 0.001497	255,1	163.28.16.254	47582	163.28.16.211	33434	ICMP	110	Time-to	-live exc	eeded	(Time	to li	ive e	exceeded	in	transit)
	5 0.001545	1	163.28.16.211	47582	140.112.30.26	33434	UDP	51	47582 →	33434 Lei	n=9						
	6 0.002205	255,1	163.28.16.254	47582	163.28.16.211	33434	ICMP	110	Time-to	-live exc	eeded	(Time	to li	ive e	exceeded	in	transit)
	/ 0.002238	2	163.28.16.211	47582	140.112.30.26	33435	UDP	51	47582 →	33435 Lei	n=9						
	8 0.002746	254,1	140.112.0.69	47582	163.28.16.211	33435	ICMP	110	Time-to	-live exc	eeded	(Time	to li	ive e	exceeded	in	transit)
	9 0.002803	2	163.28.16.211	47582	140.112.30.26	33435	UDP	51	47582 →	33435 Lei	n=9						
1	LO 0.003234	254,1	140.112.0.69	47582	163.28.16.211	33435	ICMP	110	Time-to	-live exc	eeded	(Time	to li	ive e	exceeded	in	transit)
1	1 0.003296	2	163.28.16.211	47582	140.112.30.26	33435	UDP	51	47582 →	33435 Lei	n=9						
1	2 0.003876	254.1	140.112.0.69	47582	163.28.16.211	33435	ICMP	110	Time-to	-live exc	eeded	(Time	to li	ive e	exceeded	in	transit)
1	13 0.003925	3	163.28.16.211	47582	140.112.30.26	33436	UDP	51	47582 →	33436 Lei	n=9						
1	L4 0.005675	253,1	140.112.0.201	47582	163.28.16.211	33436	ICMP	70	Time-to	-live exc	eeded	(Time	to li	ive e	exceeded	in	transit)
1	15 0.005752	3	163.28.16.211	47582	140.112.30.26	33436	UDP	51	47582 →	33436 Lei	n=9						
1	L6 0.006491	253,1	140.112.0.201	47582	163.28.16.211	33436	ICMP	70	Time-to	-live exc	eeded	(Time	to li	ive e	exceeded	in	transit)
1	17 0.006540	3	163.28.16.211	47582	140.112.30.26	33436	UDP	51	47582 →	33436 Lei	n=9						
1	18 0.007914	253,1	140.112.0.201	47582	163.28.16.211	33436	ICMP	70	Time-to	-live exc	eeded	(Time	to li	ive e	exceeded	in	transit)

## TraceRoute 封包觀察 (Linux)

#### \* Node6(TTL=6) 已到達 www.csie.ntu.edu.tw

#### 回應 ICMP Type3 Code10

No.	Time	TTL	Source	Src Port	Destination	Dest Port	Protocol	Length	Info
2	5 0.011132	5	163.28.16.211	47582	140.112.30.26	33438	UDP	51	47582 → 33438 Len=9
2	6 0.305470	249,1	140.112.149.122	47582	163.28.16.211	33438	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)
2	7 0.305588	5	163.28.16.211	47582	140.112.30.26	33438	UDP	51	47582 → 33438 Len=9
2	8 0.546608	249,1	140.112.149.122	47582	163.28.16.211	33438	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)
2	9 0.546711	5	163.28.16.211	47582	140.112.30.26	33438	UDP	51	47582 → 33438 Len=9
Ξ	0 0.773563	249,1	140.112.149.122	47582	163.28.16.211	33438	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)
-	1 0.//3664	6	163.28.16.211	47582	140.112.30.26	33439	UDP	51	4/582 → 33439 Len=9
3	2 0.774619	59,1	140.112.30.26	47582	163.28.16.211	33439	ICMP	79	Destination unreachable (Host administratively prohibited
3	3 0.774677	6	163.28.16.211	47582	140.112.30.26	33439	UDP	51	47582 → 33439 Len=9
З	4 0.775476	59,1	140.112.30.26	47582	163.28.16.211	33439	ICMP	79	Destination unreachable (Host administratively prohibited
3	5 0.775525	6	163.28.16.211	47582	140.112.30.26	33439	UDP	51	47582 → 33439 Len=9
-	6 0.776797	59,1	140.112.30.26	47582	163.28.16.211	33439	ICMP	79	Destination unreachable (Host administratively prohibited

- > Frame 36: 79 bytes on wire (632 bits), 79 bytes captured (632 bits)
- > Ethernet II, Src: Cisco\_30:7d:2e (70:e4:22:30:7d:2e), Dst: VMware\_1f:ff:b5 (00:0c:29:1f:ff:b5)
- > Internet Protocol Version 4, Src: 140.112.30.26, Dst: 163.28.16.211
- Internet Control Message Protocol
  - Type: 3 (Destination unreachable)
  - Code: 10 (Host administratively prohibited)

```
Checksum: 0x5b92 [correct]
```

```
[Checksum Status: Good]
```

```
Unused: 00000000
```

- > Internet Protocol Version 4, Src: 163.28.16.211, Dst: 140.112.30.26
- > User Datagram Protocol, Src Port: 47582, Dst Port: 33439

```
Data (9 bytes)
```

## Linux Ubuntu 22.04

\* 台大首頁

root@ubuntu-9:~# traceroute www.ntu.edu.tw traceroute to www.ntu.edu.tw (140.112.8.116), 64 hops max 1 163.28.16.254 0.671ms 0.659ms 0.587ms 2 140.112.0.69 0.672ms 0.487ms 0.479ms 3 140.112.0.201 0.983ms 0.715ms 0.799ms 4 140.112.0.169 1.254ms 0.799ms 0.960ms 5 \* \* \*

## TraceRoute 封包觀察 (Linux)

#### \* Node5 (TTL=5) 已到達 www.ntu.edu.tw



No.	Time	TTL	Source	Src Port Destination	Dest Port Protocol Le	ength Info
19	0.006266	4	163.28.16.211	52767 140.112.8.116	33437 UDP	51 52767 → 33437 Len=9
20	0.007497	251,1	140.112.0.169	52767 163.28.16.211	33437 ICMP	70 Time-to-live exceeded (Time to live exceeded in transit
21	0.007573	4	163.28.16.211	52767 140.112.8.116	33437 UDP	51 52767 → 33437 Len=9
22	0.008350	251,1	140.112.0.169	52767 163.28.16.211	33437 ICMP	70 Time-to-live exceeded (Time to live exceeded in transit
23	0.008397	4	163.28.16.211	52767 140.112.8.116	33437 UDP	51 52767 → 33437 Len=9
24	0.009320	251.1	140.112.0.169	52767 163.28.16.211	33437 ICMP	70 Time-to-live exceeded (Time to live exceeded in transit
25	0.009369	5	163.28.16.211	52767 140.112.8.116	33438 UDP	51 52767 → 33438 Len=9
26	4.457499	5	163.28.16.211	52767 140.112.8.116	33438 UDP	51 52767 → 33438 Len=9
27	7.460646	5	163.28.16.211	52767 140.112.8.116	33438 UDP	51 52767 → 33438 Len=9
28	10.4625	6	163.28.16.211	52767 140.112.8.116	33439 UDP	51 52767 → 33439 Len=9
29	13.4656	6	163.28.16.211	52767 140.112.8.116	33439 UDP	51 52767 → 33439 Len=9
30	16.4665	6	163.28.16.211	52767 140.112.8.116	33439 UDP	51 52767 → 33439 Len=9

## **Protocol for TraceRoute**

- Windows
   ICMP Ping
- Linux
  - \* UDP
- FreeBSD
  - \* UDP
- Cisco Router
  - \* 待確認
- Juniper
  - \* 待確認
- Mikrotik Router
  - \* 待確認

## **TraceRoute by TCP**

#### TraceTCP.exe

- \* https://github.com/0xcafed00d/tracetcp/releases/tag/ v1.0.3
- \* 只要對方是網站, 就會回應 TCP Port 80/443, 就一 定可以到達.

#### \* 台大首頁: 可順利到達

C:\Users\user\Documents>tracetcp.exe www.ntu.edu.tw

Tracing route to 140.112.8.116 [www.ntu.edu.tw] on port 80 Over a maximum of 30 hops.

```
ms
               l ms
                        2 ms
                                10.4.1.1
                        2 ms
                                163.28.16.254
                                                 [gateway163-16.ntu.edu.tw]
                 ms
         ms
3
                3 ms
                                140
                        1 ms
          ms
                2 ms
          ms
                        3 ms
                                140
                2 ms
                        3 ms
        4
         ms
                                140.112.0.209
        Destination Reached in 3 ms. Connection established to 140.112.8.116
Trace Complete.
```

## http-ping



## http-ping

https://www.coretechnologies.com/products /http-ping/



\* -t

- \* 持續
- \* http-ping.exe -t 140.112.237.5:8081
- \* -q
  - Ping with HEAD instead of GET (to avoid downloading the content):
  - \* 範例: http-ping -q https://www.coretechnologies.com/products/Al waysUp/AlwaysUpUserManual.pdf



#### \* -r

- Follow Redirects
- \* 範例1
  - \* D:\>http-ping http://www.yahoo.com
  - \* 1> Reply: [301/Redirected (permanent)] bytes=8 time=66ms
  - \* 2> Reply: [301/Redirected (permanent)] bytes=8 time=50ms
  - \* 3> Reply: [301/Redirected (permanent)] bytes=8 time=50ms
  - \* D:\>http-ping -r http://www.yahoo.com
  - \* 1> Reply: [200/OK] bytes=706284 time=1701ms
  - \* 2> Reply: [200/0K] bytes=706322 time=1488ms
  - \* 3> Reply: [200/0K] bytes=706383 time=1149ms



- \* 範例2
- \* TrueNAS: http://172.16.0.21/ will redirect to http://172.16.0.21/ui/
  - \* S:\Tools>http-ping.exe 172.16.0.21
  - \* 1> Reply: [302/Redirected] bytes=138 time<10ms</p>
  - \* 2> Reply: [302/Redirected] bytes=138 time<10ms</p>
  - \* 3> Reply: [302/Redirected] bytes=138 time<10ms</p>
  - \* 4> Reply: [302/Redirected] bytes=138 time<10ms</p>
  - \*
  - \* S:\Tools>http-ping.exe -r 172.16.0.21
  - \* 1> Reply: [200/OK] bytes=14334 time<10ms
  - \* 2> Reply: [200/OK] bytes=14334 time<10ms
  - \* 3> Reply: [200/OK] bytes=14334 time<10ms
  - \* 4> Reply: [200/OK] bytes=14334 time<10ms



#### **\*** -p

- \* Through a proxy server:
- \* 範例: http-ping -p http://142.4.15.25:3128 https://www.coretechnologies.com

## Nmap/Nping https://nmap.org



#### nmap

#### \* 同網段: arp

\* nmap -sn 140.112.3.0/29

C:\Users\user\Desktop\nmap-7.92>nmap -sn 140.112.3.0/29 Starting Nmap 7.92 ( https://nmap.org ) at 2021-09-23 17:31 合北標準時間 Nmap scan report for wlradius.cc.ntu.edu.tw (140.112.3.2) Host is up (0.0020s latency). MAC Address: 6C:3B:6B:E6:8D:A4 (Routerboard.com) Nmap scan report for kptest.cc.ntu.edu.tw (140.112.3.4) Host is up (0.0010s latency). MAC Address: 8C:EC:4B:99:A0:AB (Dell). Nmap scan report for telunyangpc.cc.ntu.edu.tw (140.112.3.5) Host is up (0.0010s latency). MAC Address: BC:EE:7B:DD:0B:7D (Asustek Computer) Nmap scan report for chenyucheng.cc.ntu.edu.tw (140.112.3.6) Host is up (0.0010s latency). MAC Address: BC:EE:7B:DD:0B:75 (Asustek Computer) Nmap done: 8 IP addresses (4 hosts up) scanned in 1.39 seconds

- \* 不同網段: ping
  - \* nmap -sn 140.112.3.0/29

D:\Downloads\nmap-7.92>nmap -sn 140.112.3.0/29 Starting Nmap 7.92 ( https://nmap.org ) at 2021-09-23 17:35 台北標準時間 Nmap scan report for wlradius.cc.ntu.edu.tw (140.112.3.2) Host is up (0.0019s latency). Nmap done: 8 IP addresses (1 host up) scanned in 1.98 seconds





#### nping –arp 140.112.3.0/29

C:\Users\user\Desktop\nmap-7.92>nping --arp 140.112.3.0/29 Starting Nping 0.7.92 ( https://nmap.org/nping ) at 2021-09-23 17:36 台北標準時間 SENT (0.0890s) ARP who has 140.112.3.07 Tell 140.112.3.105 (1.0900s) ARP who has 140.112.3.1? Tell 140.112.3.105 (2.0900s) ARP who has 140.112.3.2? Tell 140.112.3.105 (2.0910s) ARP reply 140 112 3 2 is at 60.3B.6B.E6.8D.44 (3.0900s) ARP who has 140.112.3.3? Tell 140.1 SENT (4.0900s) ARP who has 140.112.3.4? Tell 140.112.3.105 .0910s) ARP reply 140.112.3.4 is at 8C:EC:4B:99:A0:AB (5.0900s) ARP who has 140.112.3.5? Tell 140.112.3.105 lOs) ARP reply 140. 112.3.5 is at BC:EE:7B:DD:0B:7D (6.0900s) ARP who has 140.112.3.6? Tell 140.112.3.105 0910s) ARP reply 140.112.3.6 is at BC:EE:7B:DB:5D:75 ARP who has 140.112.3.7? 0900sì 140.112.3.105

#### nping --icmp 140.112.3.0/29

C:\Users\user\Desktop\nmap-7.92>nping --icmp 140.112.3.0/29

Star	ting Nping	0.7.9	2 ( https://nma	ap.org/nping 🗋	) at 20	21-09-23	-17:36 台北標準	調時間				
SENT	(0.0910s)	ICMP	[140.112.3.105	> 140.112.3.0	) Echo	request	(type=8/code=0)	) id=47530	seq=1] IP	[ttl=64 i	.d=16291	iplen=28 ]
SENT	(1.0920s)	ICMP	[140.112.3.105	> 140.112.3.1	l Echo	request	(type=8/code=0)	) id=26614	seq=1] IP	[ttl=64 i	d=16291	iplen=28 ]
SENT	(2.0920s)	ICMP	[140.112.3.105	> 140.112.3.2	2 Echo	request	(type=8/code=0)	) id=60186	seq=1] IP	[ttl=64 i	.d=16291	iplen=28 ]
RCVD	(2.0930s)	ICMP	[140.112.3.2 >	140.112.3.10	5 Echo	reply (t	ype=0/code=0) i	id=60186 s	eq=1] IP [t	:tl=64 id=	:34751 ip	len=28 ]
SENT	(3.0920s)	ICMP	[140.112.3.105	> 140.112.3.3	3 Echo	request	(type=8/code=0)	) id=58497	seq=i] IP	[ttl=64 1	d=16291	iplen=28 ]
SENT	(4.0920s)	ICMP	[140.112.3.105	> 140.112.3.4	1 Echo	request	(type=8/code=0)	) id=4059	seq=1] IP [	ttl=64 id	l=16291 i	plen=28 ]
SENT	(5.0920s)	ICMP	[140.112.3.105	> 140.112.3.5	5 Echo	request	(type=8/code=0)	) id=53610	seq=1] IP	[ttl=64 i	.d=16291	iplen=28]
SENT	(6.0920s)	ICMP	[140.112.3.105	> 140.112.3.6	5 Echo	request	(type=8/code=0)	) id=40484	seq=1] IP	[ttl=64 i	.d=16291	iplen=28 ]
SENT	(7.0920s)	ICMP	[140.112.3.105	> 140.112.3.	7 Echo	request	(type=8/code=0)	) id=59260	seq=1] IP	[ttl=64 i	d=16291	iplen=28 ]