Full credit is given to the above companies including the OS that this PDF file was generated!

Linux Ubuntu 22.4.5 Manual Pages on command 'arping.8'

$ man arping.8

arping(8) arping(8)

NAME

arping - sends arp and/or ip pings to a given host

SYNOPSIS

arping [-0aAbBdDeFhpqrRuUv] [-S host/ip] [-T host/ip] [-s MAC] [-t MAC] [-c count] [-i interface] [-w seconds] [-W seconds] [-V vlan] [-Q priority] [-g group] <host | -B>

arping --help

DESCRIPTION

The arping utility sends ARP and/or ICMP requests to the specified host and dis? plays the replies. The host may be specified by its hostname, its IP address, or its MAC address.

One request is sent each second.

When pinging an IP an ARP who-has query is sent. When pinging a MAC address a di? rected broadcast ICMP Echo request is sent. For more technical explanation and an FAQ, see the README file.

Note on timing

ARP packets are usually replied to (on a LAN) so fast that the OS task scheduler can?t keep up to get exact enough timing. On an idle system the roundtrip times will be pretty much accurate, but with more load the timing gets less exact.

To get more exact timing on a non-idle system, re-nice arping to -15 or so.

nice -n -15 arping foobar

This is not just an issue with arping, it is with normal ping also (at least it is on my system). But it doesn?t show up as much with ping since arping packets (when pinging IP) doesn?t traverse the IP stack when received and are therefore replied to faster.

OPTIONS

--help Show extended help. Not quite as extensive as this manpage, but more than -h.

-0 Use this option to ping with source IP address 0.0.0.0. Use this when you haven?t configured your interface yet. Note that this may get the MAC-ping unanswered. This is an alias for -S 0.0.0.0.

-a Audible ping.

-A Only count addresses matching requested address (This *WILL* break most things you do. Only useful if you are arpinging many hosts at once. See arp?ing-scan-net.sh for an example).

-b Like -0 but source broadcast source address (255.255.255.255). Note that this may get the arping unanswered since it?s not normal behavior for a host.

-B Use instead of host if you want to address 255.255.255.255.

-c count

Only send count requests.

-C count

Only wait for count replies, regardless of -c and -w.

-d Find duplicate replies. Exit with 1 if there are answers from two different MAC addresses.

-D Display answers as exclamation points and missing packets as dots. Like flood ping on a Cisco.

-e Like -a but beep when there is no reply.

-F Don?t try to be smart about the interface name. Even if this switch is not given, -i disables this smartness.

-g group

setgid() to this group instead of the nobody group.

-h Displays a help message and exits.

-i interface

Don?t guess, use the specified interface.

-m type

Type of timestamp to use for incoming packets. Use -vv when pinging to list available ones.

-p Turn on promiscious mode on interface, use this if you don?t "own" the MAC address you are using.

-P Send ARP replies instead of requests. Useful with -U.

-q Does not display messages, except error messages.

-Q priority

802.1p priority to set. Should be used with 802.1Q tag (-V). Defaults to 0.

-r Raw output: only the MAC/IP address is displayed for each reply.

-R Raw output: Like -r but shows "the other one", can be combined with -r.

-s MAC Set source MAC address. You may need to use -p with this.

-S IP Like -b and -0 but with set source address. Note that this may get the arp?ing unanswered if the target does not have routing to the IP. If you don?t own the IP you are using, you may need to turn on promiscious mode on the interface (with -p). With this switch you can find out what IP-address a host has without taking an IP-address yourself.

-t MAC Set target MAC address to use when pinging IP address.

-T IP Use -T as target address when pinging MACs that won?t respond to a broadcast ping but perhaps to a directed broadcast.

Example:

To check the address of MAC-A, use knowledge of MAC-B and IP-B.

$ arping -S <IP-B> -s <MAC-B> -p <MAC-A>

-u Show index=received/sent instead of just index=received when pinging MACs.

-U Send unsolicited ARP. This sets the destination MAC address in the ARP frame to the broadcast address. Unsolicited ARP is used to update the neighbours? ARP caches.

Example:

$ arping -i <interface> -U <interface IP>

-v Verbose output. Use twice for more messages.

-V vlan

VLAN tag to set. Defaults to no VLAN tag.

-w sec Specify a timeout before ping exits regardless of how many packets have been sent or received.

-W sec Time to wait between pings.

EXAMPLES

arping -c 3 88.1.180.225

ARPING 88.1.180.225

60 bytes from 00:11:85:4c:01:01 (88.1.180.225): index=0 time=13.910 msec

60 bytes from 00:11:85:4c:01:01 (88.1.180.225): index=1 time=13.935 msec

60 bytes from 00:11:85:4c:01:01 (88.1.180.225): index=2 time=13.944 msec

--- 88.1.180.225 statistics ---

3 packets transmitted, 3 packets received, 0% unanswered

arping -c 3 00:11:85:4c:01:01

ARPING 00:11:85:4c:01:01

60 bytes from 88.1.180.225 (00:11:85:4c:01:01): icmp_seq=0 time=13.367 msec

60 bytes from 88.1.180.225 (00:11:85:4c:01:01): icmp_seq=1 time=13.929 msec

60 bytes from 88.1.180.225 (00:11:85:4c:01:01): icmp_seq=2 time=13.929 msec

--- 00:11:85:4c:01:01 statistics ---

3 packets transmitted, 3 packets received, 0% unanswered

arping -C 2 -c 10 -r 88.1.180.225

00:11:85:4c:01:01

00:11:85:4c:01:01

BUGS

You have to use -B instead of arpinging 255.255.255.255, and -b instead of -S

255.255.255.255. This is libnets fault.

SEE ALSO

ping(8), arp(8), rarp(8)

AUTHOR

Arping was written by Thomas Habets <thomas@habets.se>.

http://www.habets.pp.se/synscan/

git clone http://github.com/ThomasHabets/arping.git

arping 21th June, 2003 arping(8)