NAME

sc_tracediff — display traceroute paths where the path has changed.

SYNOPSIS

sc_tracediff [**-a**] [**-m** *method*] [**-n**] file1.warts file2.warts

DESCRIPTION

The **sc_tracediff** utility displays pairs of traceroutes to a destination where the path has changed. It takes two warts files as input and displays paths where a hop differs by its address. The options are as follows:

-a dump all traceroute pairs regardless of whether they have changed.

-m *method*
specifies the method used to match pairs of traceroutes together. If *dst* is specified, traceroutes are matched if the destination IP address of both traces are the same. If *userid* is specified, traceroutes are matched if the userid field of both traces are the same. If *dstuserid* is specified, traceroutes are matched if the destination IP address and userid fields are the same. By default, the destination IP address is used.

-n names should be reported instead of IP addresses, where possible.

sc_tracediff can be useful in network monitoring to identify when a forward IP path has changed. In this scenario, it is recommended that Paris traceroute is used with the same UDP source and destination ports for each execution of scamper so that only paths that have changed are identified, not merely alternate paths visible due to per-flow load-balancing. By default scamper uses a source port based on the process ID, which will change with each execution of scamper.

EXAMPLES

The command:

scamper -O warts -o file1.warts -c 'trace -P udp-paris -s 31337' -f list.txt

collects the forward IP paths towards a set of IP addresses found in list.txt using 31337 as the UDP source port value. If the above command is adjusted to subsequently collect file2.warts, then we can identify paths that have subsequently changed with the command:

sc_tracediff file1.warts file2.warts

If Paris traceroute with ICMP probes is preferred, then the following invocation of scamper is appropriate:

scamper -O warts -o file1.warts -c 'trace -P icmp-paris -d 31337' -f list.txt

In this case, scamper uses 31337 as the ICMP checksum value in each probe.

SEE ALSO

scamper(1),

B. Augustin, X. Cuvellier, B. Orgogozo, F. Viger, T. Friedman, M. Latapy, C. Magnien, and R. Teixeira, *Avoiding traceroute anomalies with Paris traceroute*, Proc. ACM/SIGCOMM Internet Measurement Conference 2006.

AUTHOR

sc_tracediff was written by Matthew Luckie <mjl@luckie.org.nz>.