

# Traceroute

Track how packets traverse the Internet.

## About the Trace Route tool

Network packets traverse the global Internet by "hopping" from one router to another.

Every router knows where it needs to send a packet next to reach its destination, by using routing tables that are dynamically shared across the Internet.

Examining the hops a packet takes to reach its destination can give an indication of where a fault lies.

## Use Cases

Use the Trace Route tool on Solid Tools for Developers to:

- See the path a packet takes from the Solid Tools for Developers server to an IP address
- Find out where a fault may lie in reaching your IP address from an external network

## Usage

Enter a hostname, IPv4 or IPv6 address in the "Hostname or IP address" field.

To trace the route to a server if you don't know its IP address, enter its hostname (e.g. **www.google.com**) and select whether to use an IPv4 or IPv6 connection. If you select IPv6, the hostname must have an IPv6 (AAAA) DNS record.

To trace the route to a server using its IPv4 address, enter the IP address and ensure the IPv4 option is selected.

To trace the route to a server using its IPv6 address, enter the IP address and ensure the IPv6 option is selected.

## Results

The raw output from the "mtr" command will be displayed. The following example shows a traceroute to **www.google.com**.

Each line represents another "hop" in the packet's journey.

Hop number 1 is the Solid Tools for Developers server's upstream router. The final hop is the last known position of the packet, which will be the final destination if the trace successful reached the target.

The time displayed is a cumulative elapsed time from when the packet was transmitted.

```
Start: 2023-12-12T22:33:16+0000
HOST: clermont.waggybytes.dev
          Loss%  Snt  Last  Avg  Best  Wrst  StDev
1.|-- 10.255.255.2          0.0%   4   1.0   0.9   0.9   1.0   0.0
2.|-- 109.228.63.176       0.0%   4   1.4   5.3   1.3  17.2   7.9
3.|-- ae-4-0.bb-a.ba.slo.gb.net.ionos.com (88.208.255.30) 0.0%   4   4.5   4.5   4.5   4.6   0.1
4.|-- 142.250.173.210      0.0%   4   5.5   5.4   5.4   5.5   0.1
5.|-- 216.239.41.193       0.0%   4   8.0   8.2   7.7   9.5   0.9
6.|-- 142.251.54.49        0.0%   4   5.0   5.0   5.0   5.1   0.0
7.|-- lhr25s34-in-f4.1e100.net (142.250.187.228) 0.0%   4   5.4   5.4   5.3   5.4   0.0
```

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Revision #2

Created 22 July 2024 22:17:57 by Andy Heathershaw

Updated 22 July 2024 22:19:52 by Andy Heathershaw