Install & Run an MTR

Summary:

An MTR test is a broad-spectrum diagnostic tool that can help identify where connections are faltering, or failing. It can also help identify what's causing your connection to fail. Please note that MTR tests can only be run on Windows, MacOS, or Linux. However, as the test being done is to assess your network, not the specific device itself. Please note the device used to run the test is not relevant to the result. Also, please ensure you run the test while using the specific ISP network that you're experiencing issues with at the time.

Things to Note:

- To get a good sample size it is advised to run the MTR for at least **5-10 minutes**, which will send out approximately **300-600 packets**.
- Packet loss is frequently a sign of ICMP Deprioritization.
- The MTR needs to run from **BOTH** ends of the connection. Since TCP traffic is two-way, the issue could be on either the **TO** or the **FROM** route.

How to Install an MTR tool:

Linux

Run the following syntax in your terminal in accordance to the appropriate Operating System you're running.

Debian/Ubuntu

```
apt update && apt
upgrade

apt install mtr-tiny
```

CentOS/RHEL/Fedora

```
yum update

yum install mtr
```

Windows

For Windows Operating Systems, you can use WinMTR which is a port of MTR.

MacOS

There are two different ways to download MTR on your Mac whether you are using HomeBrew or MacPorts.

For HomeBrew use the syntax below:

```
brew install mtr
```

For MacPorts use the syntax below:

```
port install mtr
```

Running an MTR:

For Windows based MTR's using WinMTR, you can use the native GUI that is available and start an MTR through there.

For Unix based systems, you can use the syntax

```
mtr -rw [destination_host]
```

Or you also follow the MTR Options List found below for further diagnostic preferences and help:

OPTIONS

Tag	Description
-h --help	Print the summary of command line argument options.
-v --version	Print the installed version of mtr.
-r --report	This option puts **mtr** into **report** mode. When in this mode, **mtr** will run for the number of cycles specified by the **-c** option, and then print statistics and exit.
	This mode is useful for generating statistics about network quality. Note that each running instance of **mtr** generates a significant amount of network traffic. Using **mtr** to measure the quality of your network may result in decreased network performance.
-c COUNT -- report-cycles COUNT	Use this option to set the number of pings sent to determine both the machines on the network and the reliability of those machines. Each cycle lasts one second.
-s BYTES --psize BYTES PACKETSI ZE	These options or a trailing PACKETSIZE on the commandline sets the packet size used for probing. It is in bytes inclusive IP and ICMP headers
-t --curses	Use this option to force **mtr** to use the curses based terminal interface (if available).
-n --no-dns	Use this option to force **mtr** to display numeric IP numbers and not try to resolve the host names.
-g --gtk	Use this option to force **mtr** to use the GTK+ based X11 window interface (if available). GTK+ must have been available on the system when **mtr** was built for this to work. See the GTK+ web page at **http://www.gimp.org/gtk/** for more information about GTK+.
-p --split	Use this option to set **mtr** to spit out a format that is suitable for a split-user interface.
-l --raw	Use this option to tell **mtr** to use the raw output format. This format is better suited for archival of the measurement results. It could be parsed to be presented into any of the other display methods.
-a IP.ADD.RE.SS --address IP.ADD.RE.SS	
	Use this option to bind outgoing packets' socket to specific interface, so that any packet will be sent through this interface. NOTE that this option doesn't apply to DNS requests (which could be and could not be what you want).
-i SECONDS -- interval SECONDS	Use this option to specify the positive number of seconds between ICMP ECHO requests. The default value for this parameter is one second.
-4	Use IPv4 only.
-6	Use IPv6 only.