

# Wireshark Guide

This guide shows how to troubleshoot the issues when an application or a domain, and Stats are not working properly.

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## Installation

Please download and install Wireshark. Choose x32 version, if you don't know the architecture of your operating system:

<https://www.wireshark.org/download.html>

According to Wireshark requirements, you will need to install either WinPcap or Npcap capture driver. Please select the option most suitable for you.

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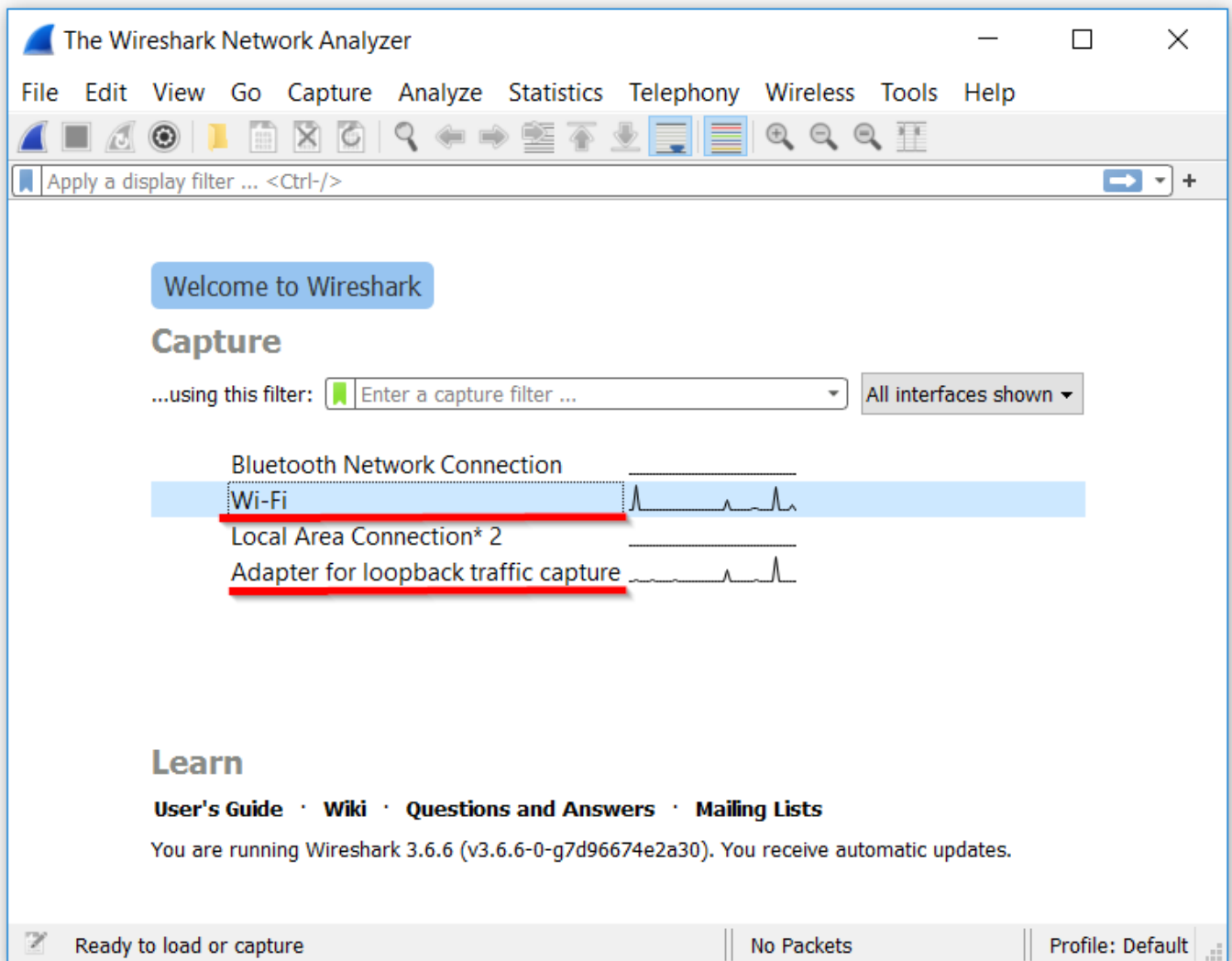
## How to use the app

Once Wireshark is installed, the system should be restarted.

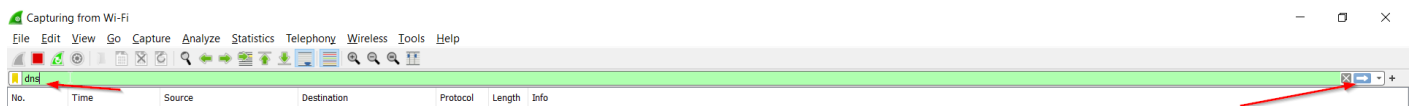
Please run the Wireshark application with the administrator rights. During the first run you will be prompted to select the source interface. Please select one of the network adapters:

**Adapter for loopback traffic capture** – if you are using SafeDNS Agent.

**Wi-Fi or Local Area Connection** – if the settings are configured on the network level.



Configure the capture protocol by typing the **dns** in the Display Filter field and press the Enter button.



This step will filter all network requests to show DNS requests only.

Start the application that requires troubleshooting.

The screen of Wireshark shows the list of the hostname addresses, their corresponding IP addresses, and additional service information.

Capturing from Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

dns

No.	Time	Source	Destination	Protocol	Length	Info
46	1.759972	192.168.88.47	195.46.39.39	DNS	74	Standard query 0xed70 A mw1.google.com
74	2.009827	192.168.88.47	195.46.39.39	DNS	74	Standard query 0xed70 A mw1.google.com
99	2.529265	192.168.88.47	195.46.39.39	DNS	75	Standard query 0x8db1 A csi.gstatic.com
116	2.611613	195.46.39.39	192.168.88.47	DNS	115	Standard query response 0xed70 A mw1.google.com CNAME mw-small.l.google.com A 142.250.74.142
135	2.625264	195.46.39.39	192.168.88.47	DNS	115	Standard query response 0xed70 A mw1.google.com CNAME mw-small.l.google.com A 142.250.74.142
185	2.779366	192.168.88.47	195.46.39.39	DNS	75	Standard query 0x8db1 A csi.gstatic.com
190	2.780418	195.46.39.39	192.168.88.47	DNS	91	Standard query response 0x8db1 A csi.gstatic.com A <u>195.46.39.11</u>
272	2.945843	195.46.39.39	192.168.88.47	DNS	91	Standard query response 0x8db1 A csi.gstatic.com A <u>195.46.39.11</u>

In the example above, the domain csi.gstatic.com was resolved to the IP address 195.46.39.13 - SafeDNS BlockPage address.

This means that the domain csi.gstatic.com is currently blocked either because its category is blocked or because it is on the Denylist.

Please note, that SafeDNS BlockPages can use the following addresses:

195.46.39.1, 195.46.39.2, 195.46.39.3, 195.46.39.11, 195.46.39.12, and 195.46.39.13.

## How to solve the issue?

Please look up for the category of the domain with the SafeDNS online tool:

<https://www.safedns.com/check-website>

After that, check if this category is not blocked in your SafeDNS Dashboard or is not on the Denylist.

Using Wireshark to capture DNS requests is usually enough to solve any issues related to DNS web filtering. However, you can also try advanced Wireshark features - network packet capture, packet analyzer, and USB traffic capture.

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