

# Network Measurement Tools for Shutdown Advocacy

Access to the Internet can be disrupted in many different ways, which is why various tools (and methods) can be useful for network measurement. In some cases, Internet Service Providers (ISPs) block access to specific websites and apps, while in other cases, they intentionally slow down connections to Internet services (“throttling”), making them inaccessible. And in extreme cases, access to the Internet is shut down completely.

Evaluating which tools can be useful for measuring different forms of Internet disruptions requires an understanding of relevant publicly available tools and datasets. A summary of each is provided below.

	Website and App Censorship	Network Performance (speed)	National Internet Outage	Regional Internet Outage	Specific Network Outage
OONI	Yes	Yes	No	No	No
IODA	No	No	Yes	Yes	Yes
M-Lab	No	Yes	No	No	No
RIPE Atlas	Partial	Yes	No	No	No
Censored Planet	Yes	No	No	No	No
Google Transparency	No	No	Yes	No	No

## OONI

The [Open Observatory of Network Interference \(OONI\)](#) is a free software project that aims to empower decentralized efforts in increasing transparency of Internet censorship around the world.

- [\*\*Run OONI Probe\*\*](#). Test the **blocking of websites and apps**. Measure the **speed and performance** of your network.
- [\*\*Explore OONI data\*\*](#). Open data resource on Internet censorship around the world. Millions of network measurements openly published from 239 countries and territories since 2012. New censorship measurements published in near real-time.

## IODA

The [Internet Outage Detection and Analysis \(IODA\)](#) project, run by UC San Diego's Center for Applied Internet Data Analysis (CAIDA), monitors the Internet in near-real time to identify macroscopic Internet outages affecting the edge of the network, i.e., significantly impacting a network operator (AS) or a large fraction of a country.

- [IODA Dashboard](#). Track **Internet connectivity shutdowns** around the world in near real-time. Inspect data on Internet outages affecting entire countries, specific regions, and AS networks.

## M-Lab

[Measurement Lab \(M-Lab\)](#) aims to advance Internet research by empowering consumers with useful information about their Internet performance.

- [Run NDT speed test](#). Measure the **speed and performance** of your network.
- [Explore M-Lab data](#). Open data resource on network performance around the world.

## RIPE Atlas

[RIPE Atlas](#) is a global network of probes that measure Internet connectivity and reachability around the world.

## Censored Planet

[Censored Planet](#) is a [censorship measurement platform](#) that collects data using multiple *remote measurement techniques* in more than 200 countries.

- [Explore Censored Planet data](#). Open data resource on the blocking of websites around the world.

## Google Transparency Report

The Google Transparency Report includes public [Google Product Traffic data](#) which provides timely information on Google traffic originating from each country around the world. Given that Google services are widely used around the world, a drop in Google traffic data (from a specific country) can indicate a widespread **Internet connectivity shutdown**, or a disruption to a specific Google service.

### *Want to learn more?*

Internews, in close collaboration with OONI, IODA, and M-Lab, developed an introduction to network measurement course. The course is broken down into separate modules, each led by a member of the three tool teams, that explore how and when to use each tool. Click [here](#) to learn more about the course and view the training modules.