34C3.tuwat!

OONI

Lets Fight Internet Censorship Together

WHAT IS
INTERNET
CENSORSHIP?

Internet Censorship |ˈɪntənɛt sɛnsərʃɪp|

1. a distortion of the reality of the Internet created by those in power.

2. another term for FILTERNET.

OONI
The Open Observatory of Network Interference

OONI IS
OPEN METHODOLOGIES
OPEN SOURCE SOFTWARE
OPEN DATA
FOR REPRODUCIBLE
RESEARCH!

WhatsApp Blocked

Deep Packet Inspection (DPI) detected

Media outlets, LGBT sites, human rights websites, political opposition sites
& censorship circumvention tool sites found to be blocked

Ethiopia's wave of political protests

December 2016

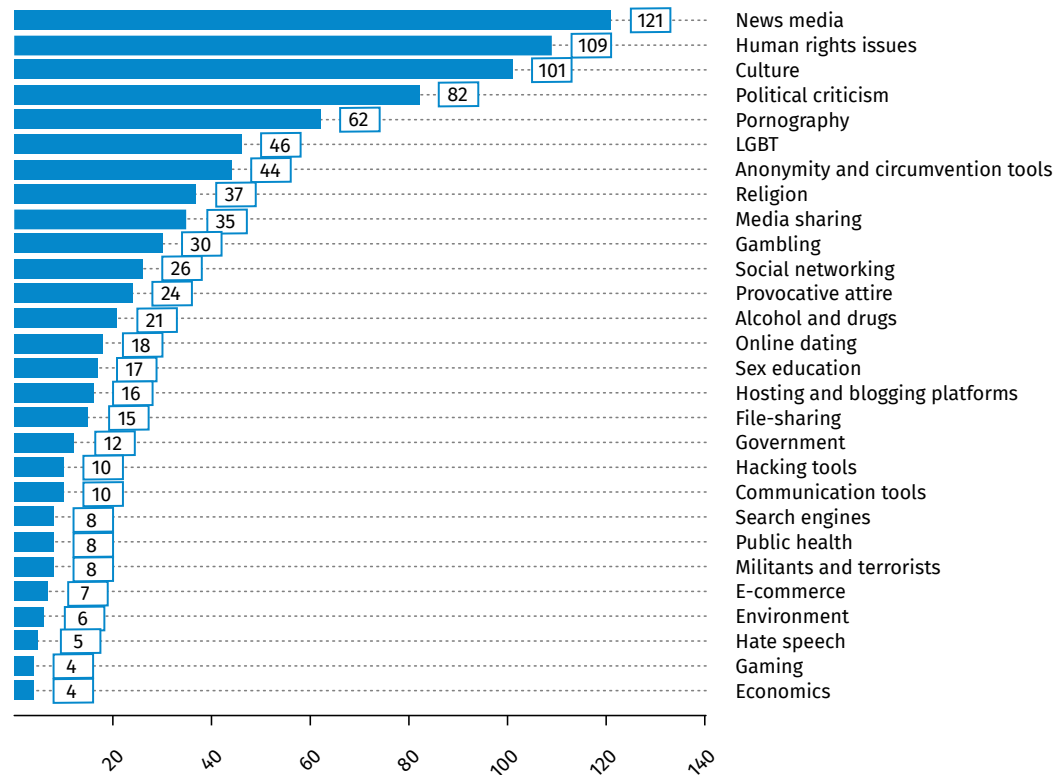https://ooni.torproject.org/post/ethiopia-report/

Vimeo and Reddit blocked even though the ban was lifted more than 2 years ago

Blocked URLs include LGBT sites, an online translator and sites providing information on AIDS/HIV prevention

Indonesia

May 2017

Blocked domains in Iran
From 2014 to 2017

Category	Count
News media	121
Human rights issues	109
Culture	101
Political criticism	82
Pornography	62
LGBT	46
Anonymity and circumvention tools	44
Religion	37
Media sharing	35
Gambling	30
Social networking	26
Provocative attire	24
Alcohol and drugs	21
Online dating	18
Sex education	17
Hosting and blogging platforms	16
File-sharing	15
Government	12
Hacking tools	10
Communication tools	10
Search engines	8
Public health	8
Militants and terrorists	8
E-commerce	7
Environment	6
Hate speech	5
Gaming	4
Economics	4

September 2017

https://ooni.torproject.org/post/iran-internet-censorship/

At least 25 websites related to the Catalonia's Independence Referendum were blocked.

The .cat registry was raided and forced to take down many websites.

Spain

October 2017

https://ooni.torproject.org/post/internet-censorship-catalonia-independence-referendum/

OONI SOFTWARE ECOSYSTEM
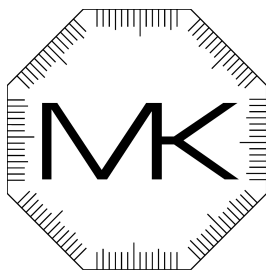
OONI
Probe

OONI
Run

OONI
Explorer

OONI
Proteus

OONI
Sync

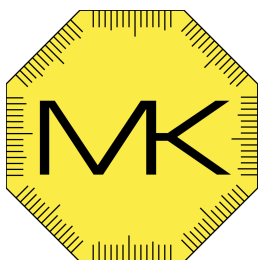**MK**
Measurement Kit
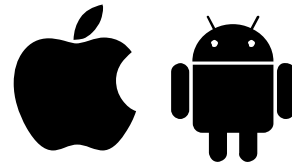
OONI
API

OONI
Pipeline

Measurement Kit

- C++14 library that implements all the network measurement tests we support.
- Available on Unix and soon on Windows
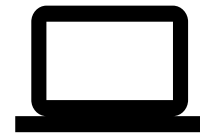- Has JNI and Node.js bindings.

OONI
Probe

MEASUREMENT APP FOR
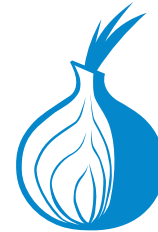
Android
iOS

macOS
Linux

OONI Software tests

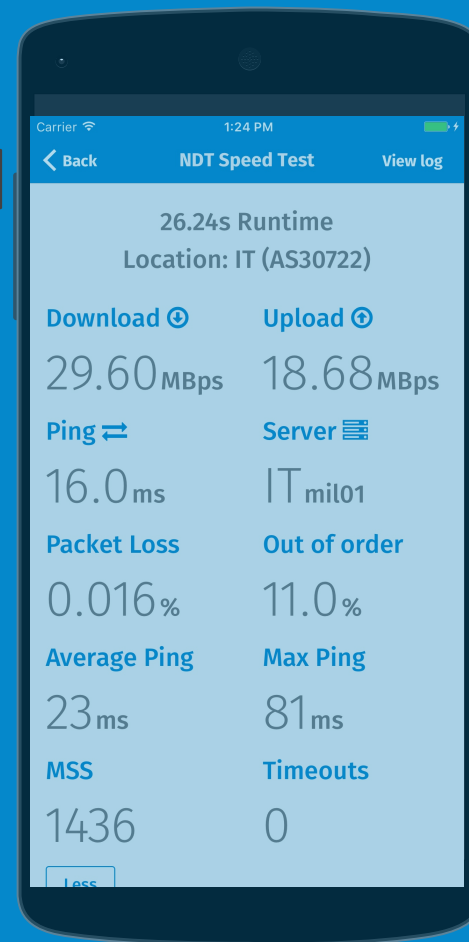Web Censorship

Instant Messaging Apps

Censorship Circumvention
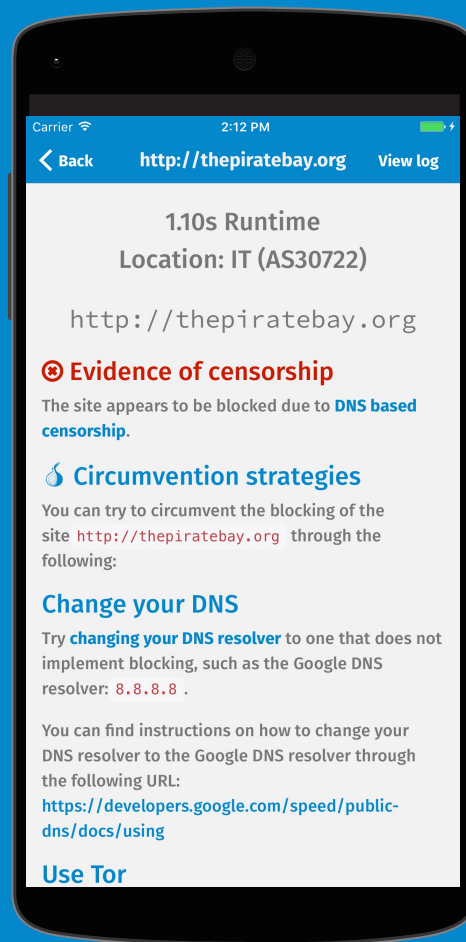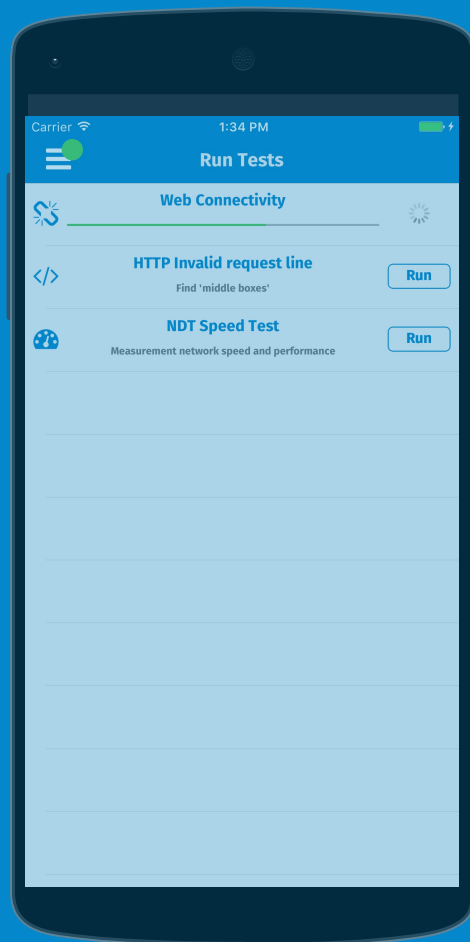
Middle Boxes

Speed & Performance

Screen 1 — Run Tests

Run Tests

Web Connectivity

HTTP Invalid request line
Find 'middle boxes'
Run

NDT Speed Test
Measurement network speed and performance
Run

Screen 2 — http://thepiratebay.org

Back · **http://thepiratebay.org** · View log

1.10s Runtime
Location: IT (AS30722)

`http://thepiratebay.org`

⊗ **Evidence of censorship**

The site appears to be blocked due to **DNS based censorship**.

💧 **Circumvention strategies**

You can try to circumvent the blocking of the site `http://thepiratebay.org` through the following:

Change your DNS

Try **changing your DNS resolver** to one that does not implement blocking, such as the Google DNS resolver: `8.8.8.8` .

You can find instructions on how to change your DNS resolver to the Google DNS resolver through the following URL:
https://developers.google.com/speed/public-dns/docs/using

Use Tor

Screen 3 — NDT Speed Test

Back · **NDT Speed Test** · View log

26.24s Runtime
Location: IT (AS30722)

Download ⊕
29.60 MBps

Upload ⊕
18.68 MBps

Ping ⇄
16.0 ms

Server ☰
IT mil01

Packet Loss
0.016 %

Out of order
11.0 %

Average Ping
23 ms

Max Ping
81 ms

MSS
1436

Timeouts
0

Less

OONI Probe Dashboard

ooniprobe 2.2.1-dev | **running** ⊘ | Location: IS (AS47172)

Test Tor	**Test the Web**	**Test Instant Messaging Apps**	**Test for Middle Boxes**
ⓘ ⏱ ▶	ⓘ ⏱ ▶	ⓘ ↻ ▶	ⓘ ⏱ ▶

Last 4 tests

💬 **telegram**	**Dec 23, 2017 3:14 AM**	**AS47172**	**IS**	⊘
💬 **facebook_messenger**	**Dec 23, 2017 3:14 AM**	**AS47172**	**IS**	⊘
💬 **whatsapp**	**Dec 23, 2017 3:10 AM**	**AS47172**	**IS**	⊘
🔥 **tcp_connect**	**Dec 23, 2017 3:05 AM**	**AS47172**	**IS**	⚠

View your measurements

About OONI   Data policy   Help   Explore data

OONI | Run

Let's fight internet censorship together!

Test Name

Internet Censorship

◉ Web Connectivity
Check if websites are blocked.
Learn how this test works here

Speed & Performance

○ NDT Speed Test
○ DASH Video Streaming

Middleboxes

○ HTTP Invalid Request Line
○ HTTP Header Field Manipulation.

https://run.ooni.io

What you can do

Generate a link and share it with your friends and contacts around the world. Encourage them to run OONI Probe to test the sites of your choice!

URLs

http://

+ Add URL

GENERATE

OPEN DATA

⊛ **OONI** | Pipeline
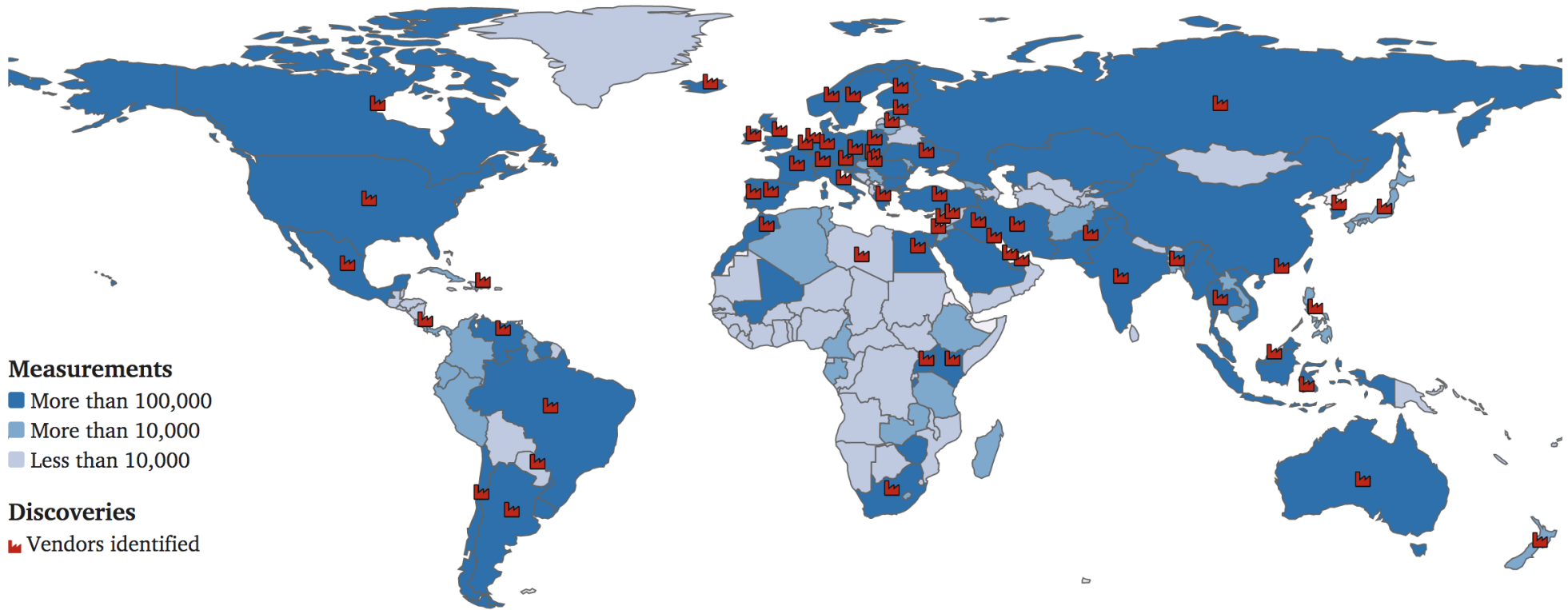
⊛ **OONI** | API

⊛ **OONI** | Explorer

Provides **evidence** of censorship events

Transparency of global internet controls

Allows researchers to conduct **independent studies** & to explore other research questions

Allows the public to **verify** our findings

Measurements
- More than 100,000
- More than 10,000
- Less than 10,000

Discoveries
- Vendors identified

Country List

Browse countries to find the one you want to investigate measurements for

Filter Country N...

https://explorer.ooni.io

Afghanistan	24,756 measurements	**Albania** 8,450 measurements	**Algeria** 36,756 measurements
Andorra	142	**Angola** 1,848	**Antigua And Barbuda** 47

OONI | API

Welcome to the OONI API

Dynamically updated every day, the OONI API enables researchers and data scientists to analyze all data collected from OONI Probes around the world.

Download and search OONI Probe network measurements.

Join the OONI data analyst community and help uncover internet censorship worldwide!

READ THE API DOCS

Latest Measurements

ASN	Country code	Test Start Time	Test Name	
AS9121	TR	2018-01-04 21:32:10	ndt	Download
AS15895		2017-12-30 05:49:02	ndt	Download
AS15895	UA	2017-12-30 01:46:11	ndt	Download
AS5438	TN	2017-12-29 11:14:18	ndt	Download
AS197207	IR	2017-12-28 16:35:15	ndt	Download
AS4818	MY	2017-12-28 01:59:24	ndt	Download

https://api.ooni.io

GET OUT THERE AND USE OONI DATA!