

IETF 115 - IAB Open

OOONI Censorship Measurements in Iran

Simone Basso (OOONI)



8th November 2022

OOONI: Open Observatory of Network Interference

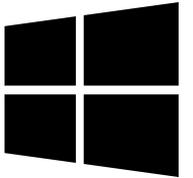
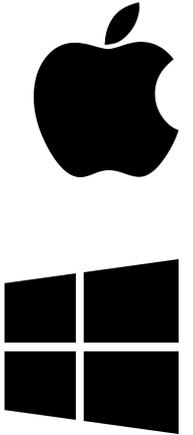
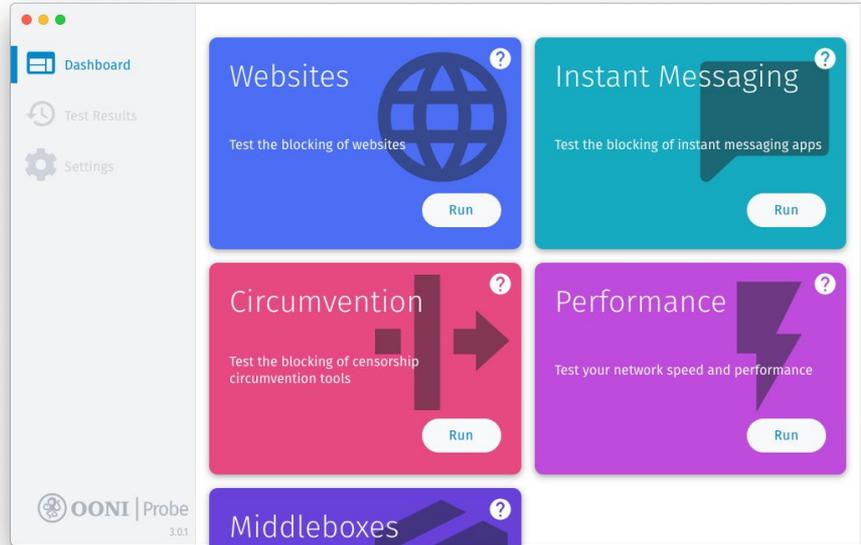
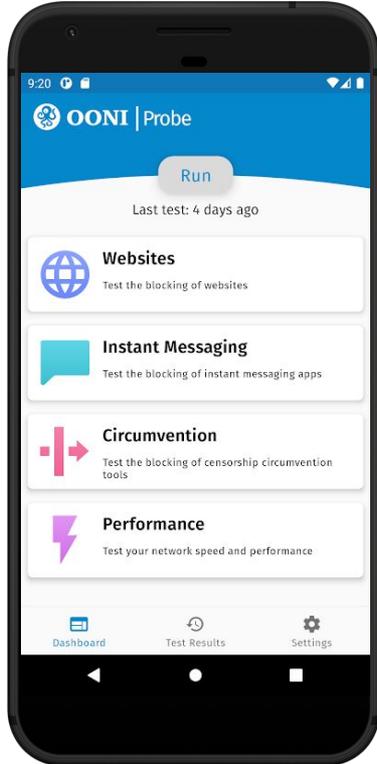
Free software project aimed at empowering decentralized efforts in increasing transparency of **internet censorship** around the world.

Since 2012, the OONI community has collected more than a billion of network measurements from *more than 200 countries*, shedding light on many cases of internet censorship around the world.

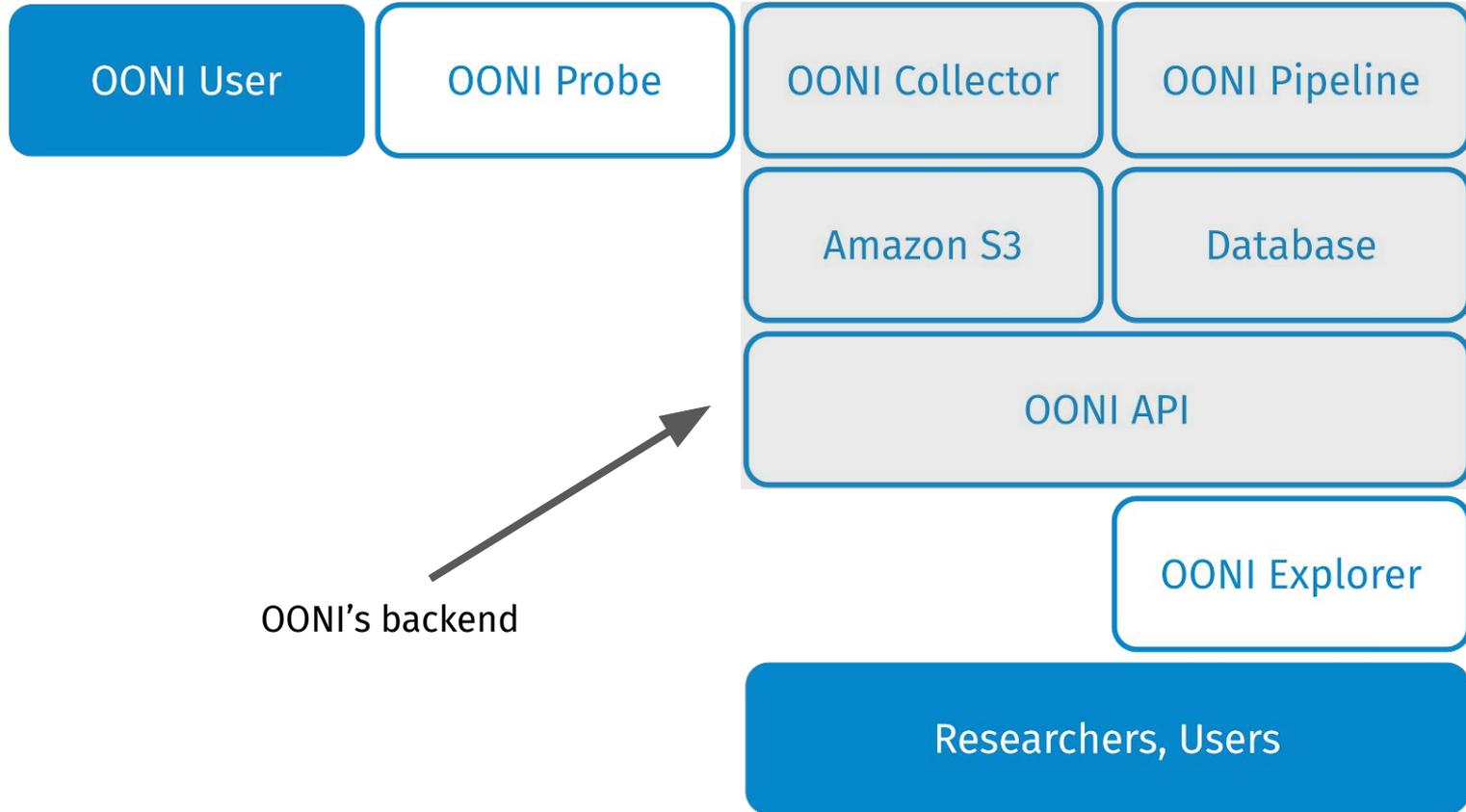


<https://ooni.org/>

OOONI Probe (<https://ooni.org/install>)



Value Chain of a OONI Measurement



<https://explorer.ooni.org/chart/mat>

OONI Measurement Aggregation Toolkit (MAT)

Create charts based on aggregate views of real-time OONI data from around the world

Country	ASN	From	Until	X Axis	Y Axis
All Countries ▼	AS1234	2022-10-08	2022-11-08	Measurement Day ▼	▼
Test Name	Domain	Input	Website Categories		
Web Connectivity ▼	twitter.com	https://fbcdn.net/robots.txt	ALL ▼		

Show Chart

<https://ooni.org/reports>

Iran blocks social media, app stores and encrypted DNS amid Mahsa Amini protests

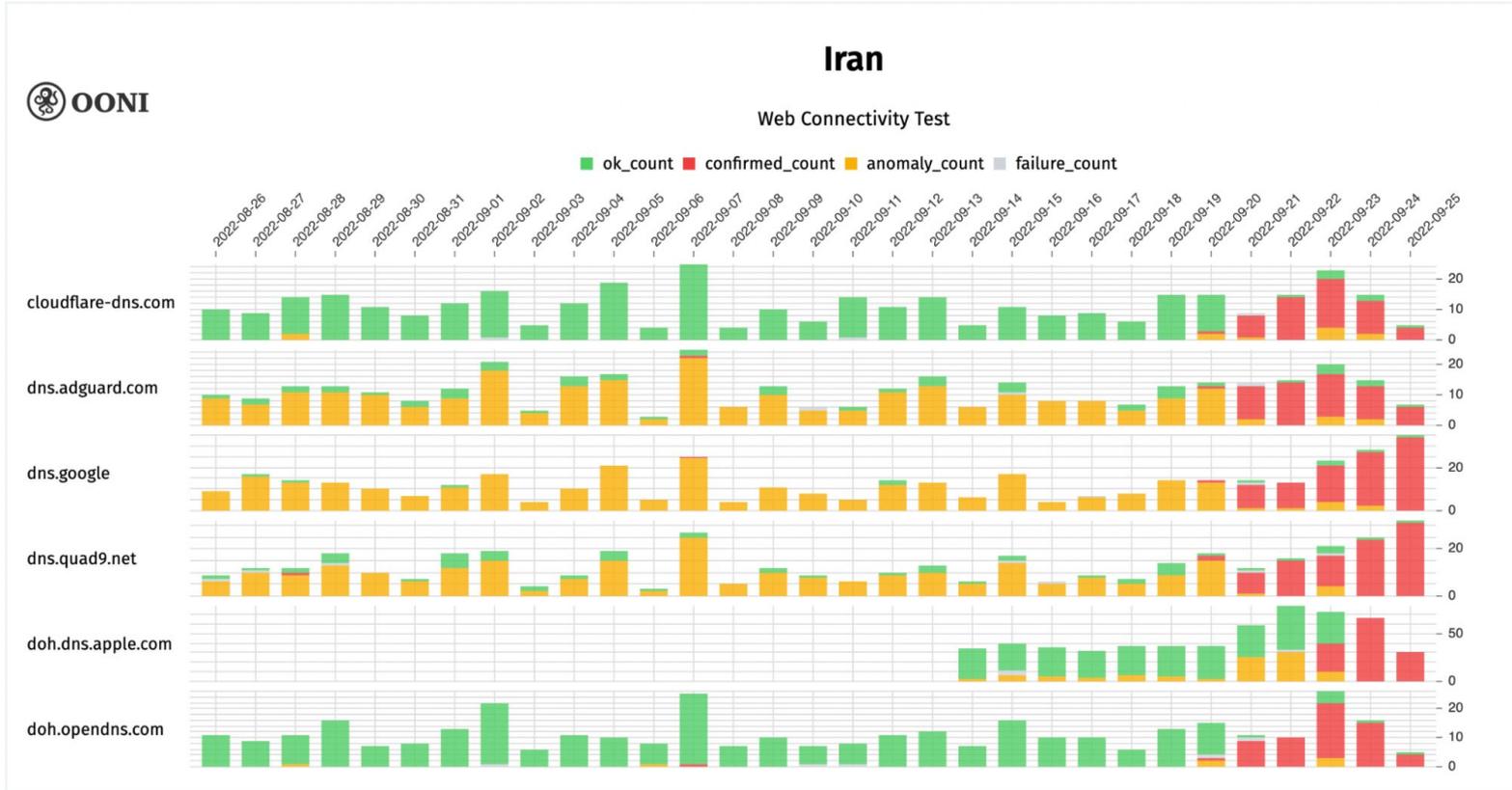
Simone Basso (OONI), Maria Xynou (OONI), Arturo Filastò (OONI), Amanda Meng (IODA - Georgia Tech), 2022-09-25

Protests **erupted** in Iran over the last week following the death of Mahsa Amini, a 22-year-old Kurdish woman who was reportedly beaten to death by Iran's morality police for allegedly violating strict hijab rules. Amid the **ongoing protests**, which have **reportedly** resulted in at least 31 civilian deaths, Iranian authorities **cracked down on the internet** in an attempt to curb dissent.

Over the past week, Iran experienced **severe mobile network outages**, in addition to increased levels of internet censorship. In this report, we share **OONI network measurement findings from Iran** on the blocking of WhatsApp, Instagram, LinkedIn, Skype, Google Play Store, Apple App Store, and encrypted DNS (DNS over HTTPS). We also share **IODA** and **Cloudflare Radar** data on mobile network outages over the last few days.

<https://ooni.org/post/2022-iran-blocks-social-media-mahsa-amini-protests/>

DNS over HTTPS



WhatsApp



Iran

Web Connectivity Test



Instagram

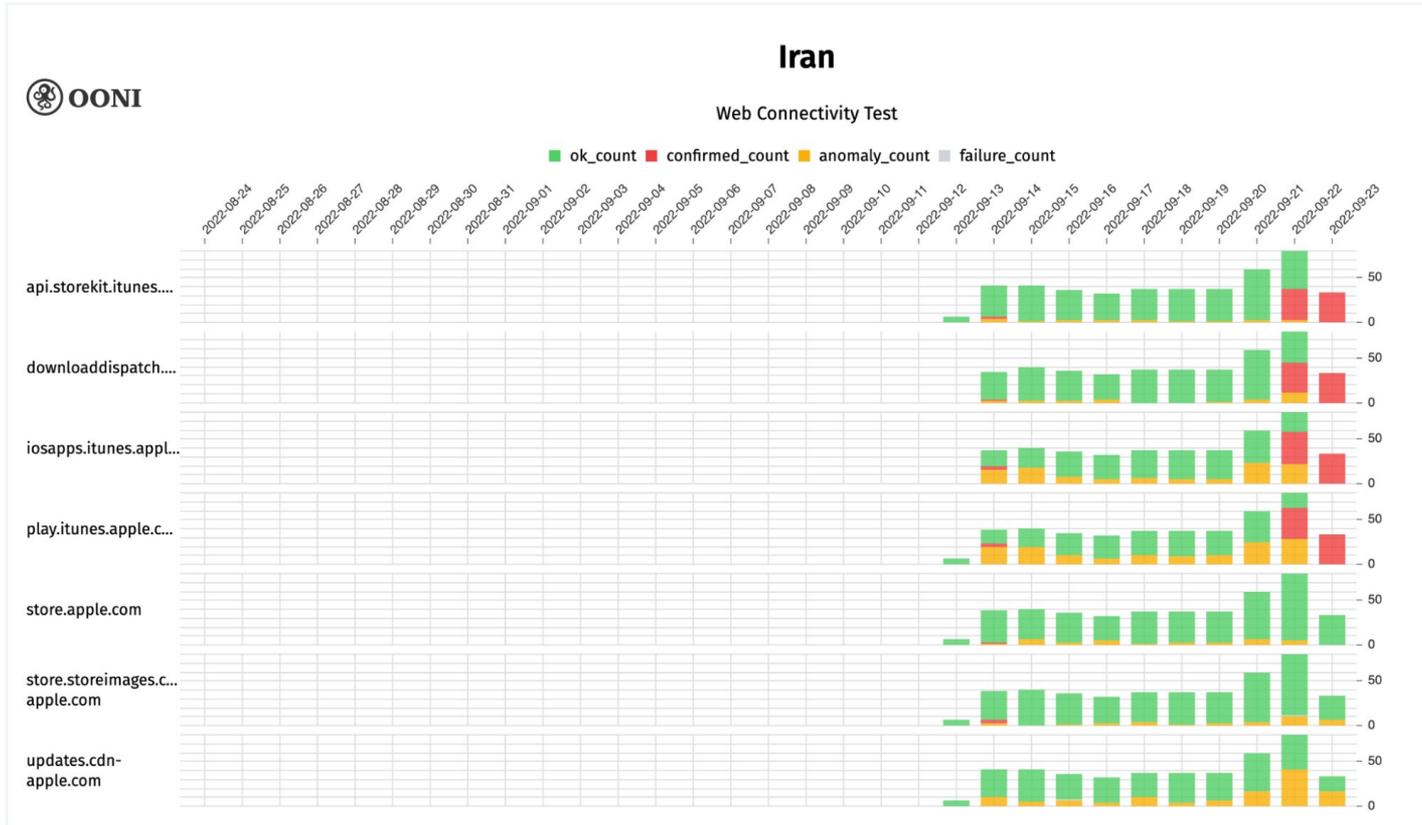


Iran

Web Connectivity Test



Apple's App Store

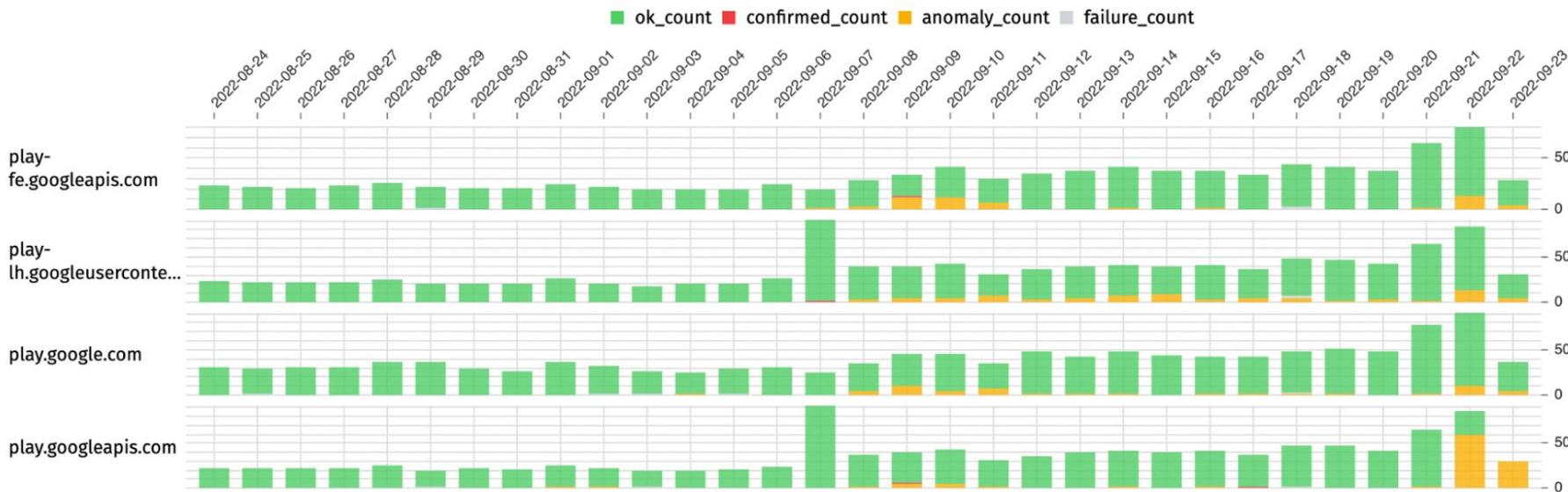


Google's Play Store



Iran

Web Connectivity Test

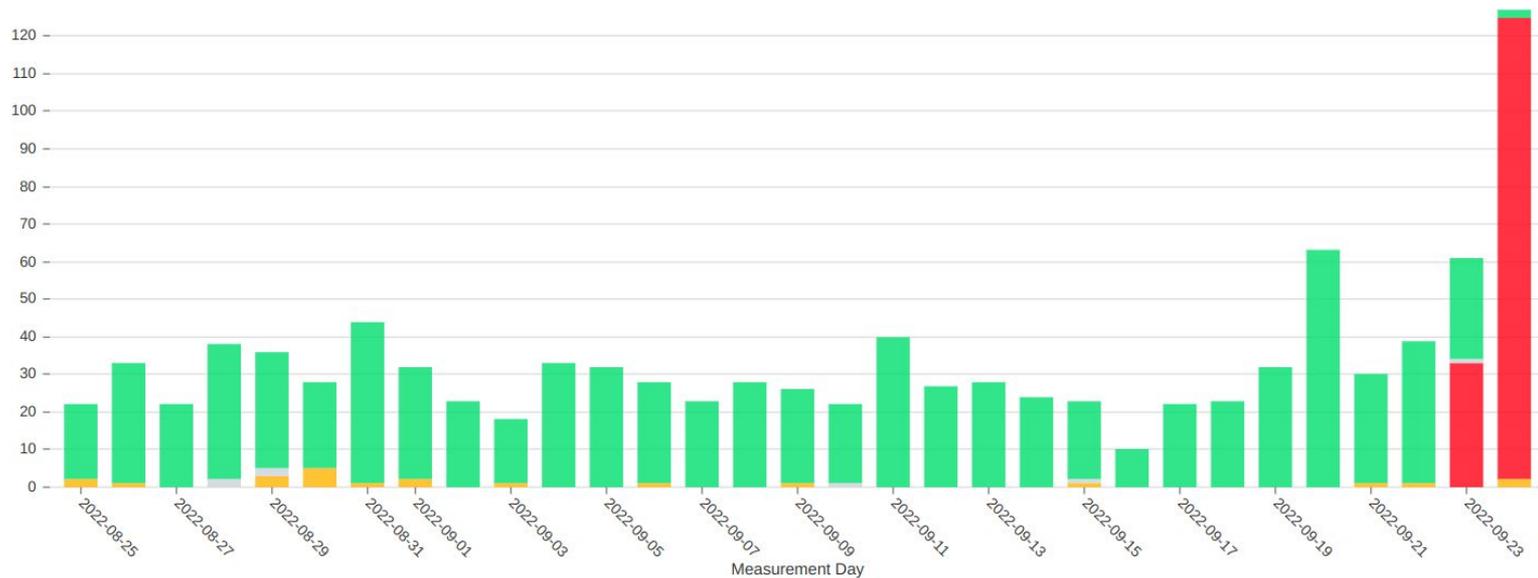




Iran

Web Connectivity Test, www.linkedin.com

■ ok_count ■ confirmed_count ■ anomaly_count ■ failure_count



Thank you!



contact@openobservatory.org



<https://slack.ooni.org/>



[@OpenObservatory](https://twitter.com/OpenObservatory)



<https://github.com/ooni>

[DoH] Explaining color shift w/ doh.dns.apple.com

confirmed (= red) because the DNS lookup returns the 10.10.34.3{4,5,6} bogon

anomaly (= yellow) because we have timeouts connecting or during the TLS handshake

AS	#dns	#tcp	#tls	#success	count
Zi-Tel (206065)	yes		yes		18
TCI (58224)	yes	yes	yes		21
TCI (58224)	yes	yes	yes	yes (!!!)	5

Subset of the data collected on 24 September 2022 for doh.dns.apple.com.

We reduce multiple failures. Confirmed is stronger than anomaly. So we see the plot turning red.