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# Measuring Shutdowns and More



**Internet Society**  
Pulse

Mat Ford  
Technology Program Manager  
[ford@isoc.org](mailto:ford@isoc.org)

# Internet Society Pulse – Why?

Bridge the gap between Internet measurement research and non-scientific audiences (journalists, public policymakers, other researchers...)

Provide a trusted source of information about the Internet – make good, relevant data and interpretations easier to find, share, and reuse.

Help to inform and support other projects & communities of interest.



Photo by [Markus Winkler](#) on [Unsplash](#)



# Internet Society Pulse – What?

Curating trusted third-party Internet measurement data from various sources on a single platform.

Examine trends, generate reports, and tell data-driven stories.

Available to everyone, everywhere so that policymakers, researchers, journalists, network operators, civil society groups and others can better understand the health, availability, and evolution of the Internet.



Photo by [Markus Spiske](#) on [Unsplash](#)





# Internet Society Pulse – How?

## Focus Areas

- Internet Shutdowns
- Enabling Technologies
- Internet Centralization
- Internet Resilience (Africa)
- ...

## And coming soon (Q4)

- Country & Region Reports



Photo by [Elisa Michelet](#) on [Unsplash](#)





Data partners – thanks!



OONI

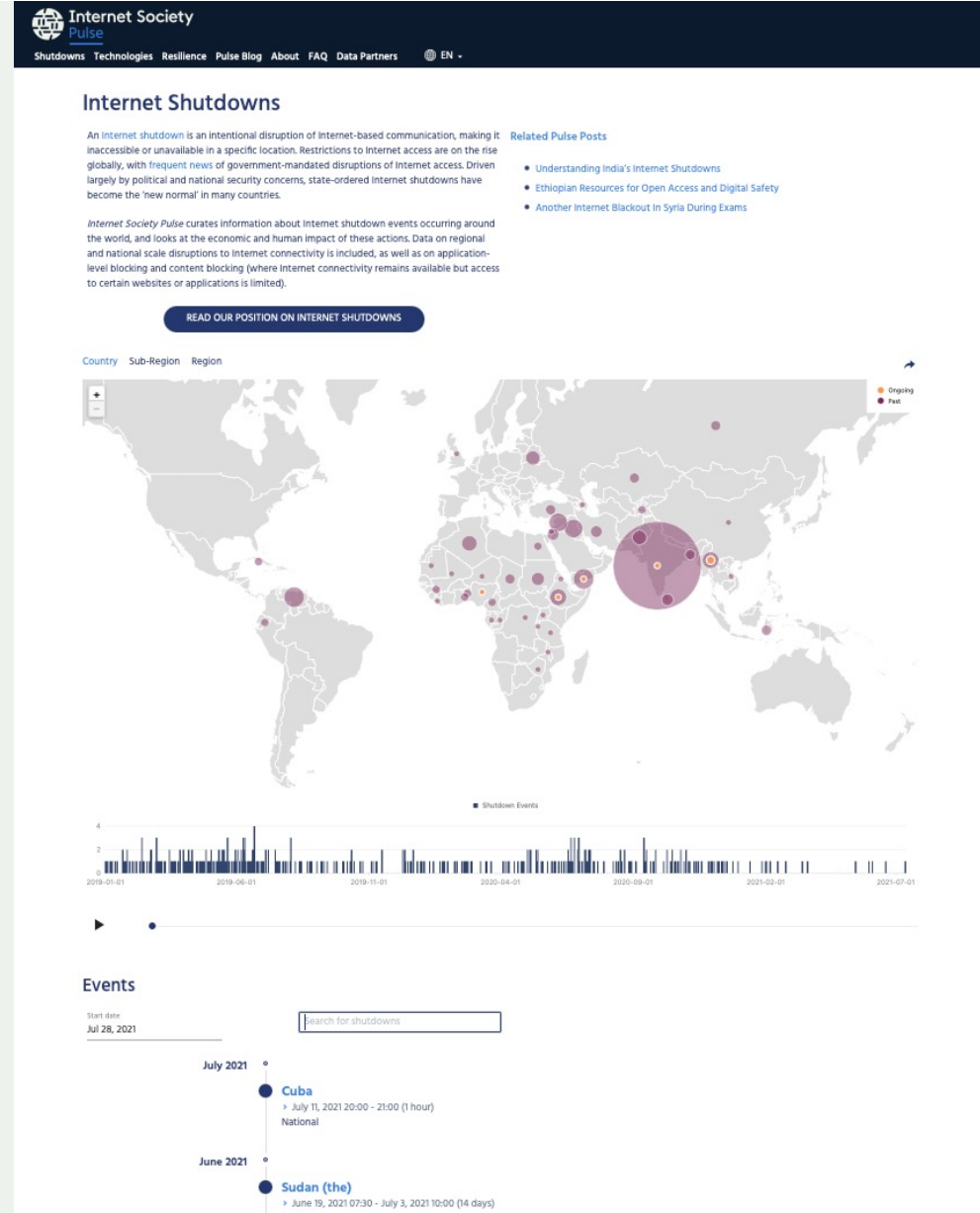
W<sup>3</sup>Techs  
Web Technology Surveys



# Internet Shutdowns

*An Internet shutdown is an intentional disruption of Internet-based communication, making it inaccessible or unavailable in a specific location.*

- Developing curated database of Shutdown events.
- Working with key partners to populate, archive, and verify events as they occur.
- Pulse supports queries by date and location.
- Provide a platform for Internet Society Chapters in impacted countries to share their experiences and first-hand accounts of impacts on social and economic life.
- Partners include OONI, Center for Applied Internet Data Analysis (CAIDA), AccessNow



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## Internet Shutdowns



July 11, 2021 20:00 - 21:00 (1 hour)

[READ OUR POSITION ON INTERNET SHUTDOWNS](#)

### Affected services

WhatsApp, Telegram

### Media coverage

Following major street protests, Cuban authorities have blocked social media sites in an apparent effort to stop the flow of information. Facebook, WhatsApp and Telegram were blocked, an international monitor said. <https://t.co/zW9TForj51>

— The Associated Press (@AP) July 12, 2021

- <https://gauchazh.clicrbs.com.br/mundo/noticia/2021/07/governo-cubano-reage-a-protestos-historicos-ckr0k9bcy001g01ebm56t0qb4.html>
- <https://www.debate.com.mx/mundo/Cuba-corta-conexion-de-datos-moviles-durante-protestas-contra-dictadura-20210711-0201.html>
- <https://www.techmeme.com/210713/p8#a210713p8>
- <https://www.bbc.com/news/world-latin-america-57802170>

### Related blog posts

Disrupting the internet means silencing people who are protesting in Cuba. #KeepItOn #SOSCuba #PatriaYVida <https://t.co/ze9N2zKVJI>

— Access Now (@accessnow) July 12, 2021

You can see the internet outage in Cuba on Google's Transparency Report too: <https://t.co/ABldddBF7S#KeepItOn> [pic.twitter.com/RUwLT3PIeY](https://t.co/ABldddBF7S#KeepItOn)

— Vinicius Fortuna (he/him) (@vinifortuna) July 12, 2021

Today OONI data shows that #Cuba started blocking WhatsApp, Telegram & Signal amid protests.

Blocking appears to be happening by injecting a TCP RST packet during the TLS handshake. [#CubaSOS](https://t.co/mUnZDnk5ZNhttps://t.co/x7WEEdZh65xhttps://t.co/LYs2cUyh2Q#CubaSOS) [#CubaLibre](https://t.co/mUnZDnk5ZNhttps://t.co/x7WEEdZh65xhttps://t.co/LYs2cUyh2Q#CubaSOS) [#CubaLibre](https://t.co/mUnZDnk5ZNhttps://t.co/x7WEEdZh65xhttps://t.co/LYs2cUyh2Q#CubaSOS) [pic.twitter.com/40FDFrveUo](https://t.co/mUnZDnk5ZNhttps://t.co/x7WEEdZh65xhttps://t.co/LYs2cUyh2Q#CubaSOS)

— OONI (@OpenObservatory) July 12, 2021

#Internet disruption in #Cuba yesterday followed widespread anti-government protests. Impact most evident in @fastly traffic from @ETECSA\_Cut



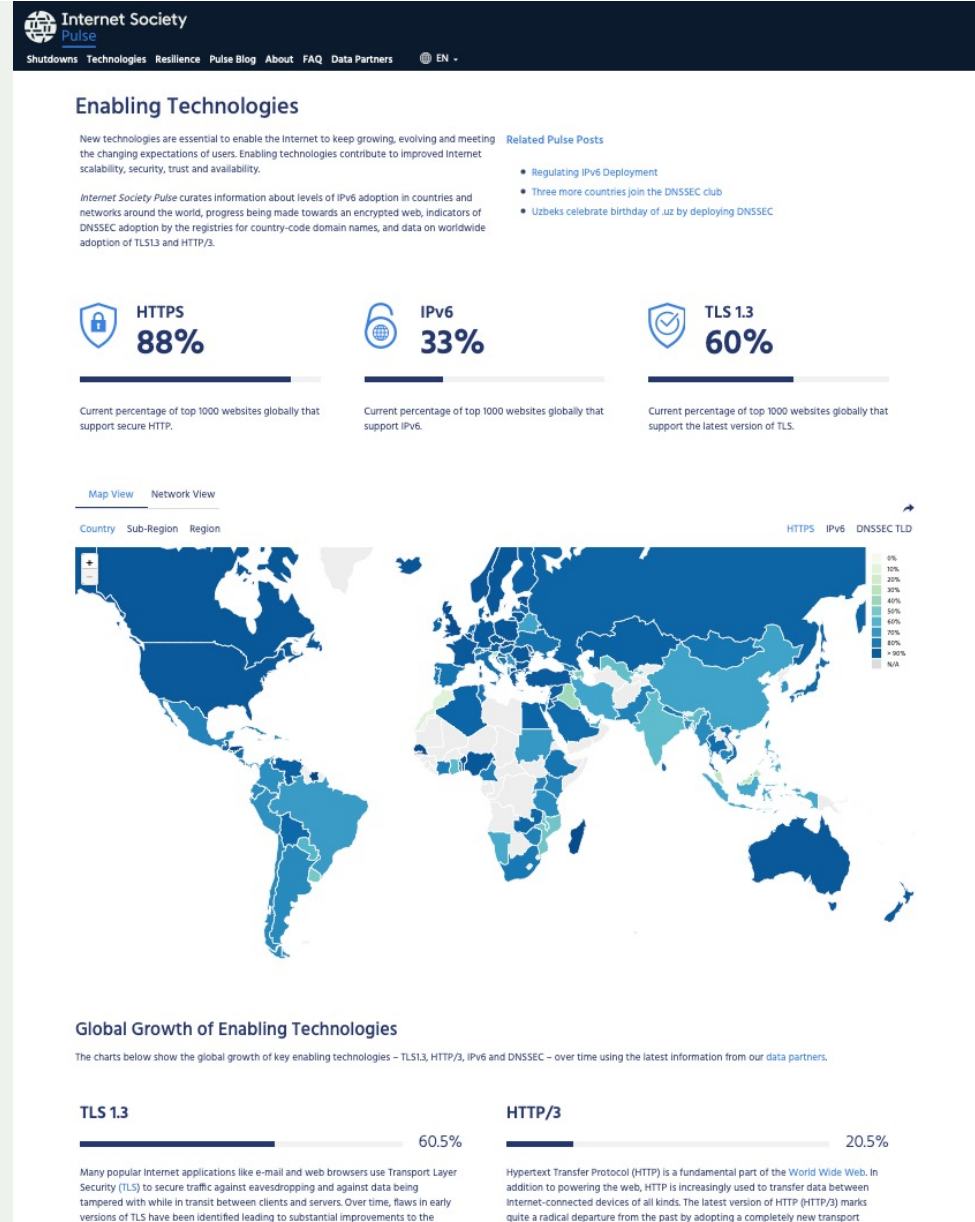
# Enabling Technologies

*Enabling technologies contribute to improving the scalability, security, trust and availability of the open Internet.*

Presenting data on IPv6, TLS1.3, DNSSEC, HTTP/3, and HTTPS

Plan to add additional technologies over time

Will help with local and regional advocacy around technology deployment initiatives



# Internet Centralization

Based on measurements of Top Websites

Includes analysis of 7 technology markets (CDN, SSL Cert, TLD, Hosting, DC, Name Server, Location)

Distilled into two metrics of centralization, tracked over time

- Gini coefficient
- Herfindahl-Hirschman Index (HHI)



# Internet Resilience

*Resilience is the ability to provide and maintain an acceptable level of service in the face of faults and challenges to normal operation.*

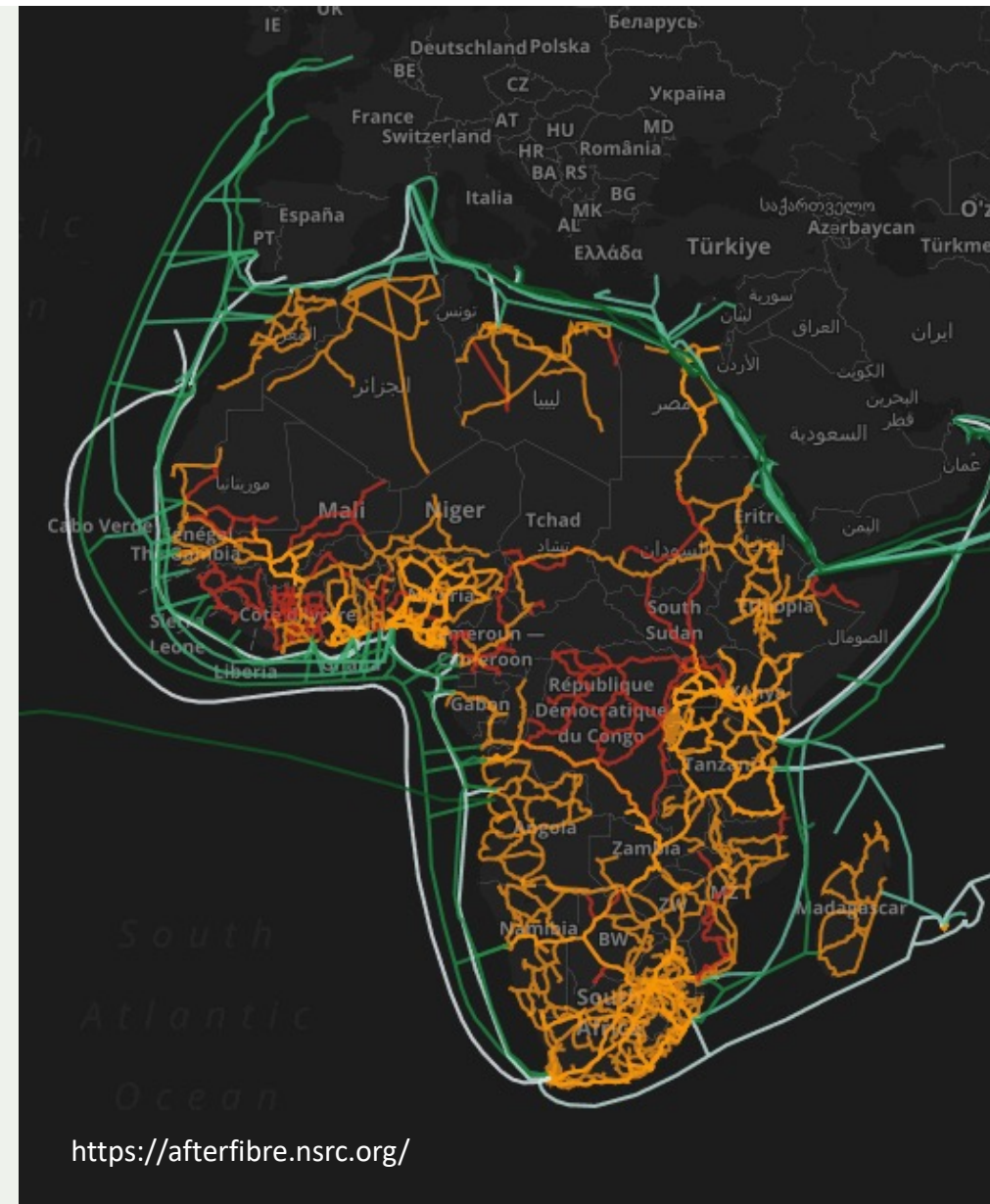
Initial scope is Africa, intention is to scale out to other regions. Joint work with AFRINIC.

Methodology white paper published

Working with initial target countries

Building strategic relationships with key measurement, technical, and regulatory communities across the region.

Check out our recent MIRA webinar





We're very interested in feedback and identifying additional data partners to help grow the platform and make it useful to as broad an audience as we can.



Follow us on Twitter - @isoc\_pulse

Contact us via [pulse@isoc.org](mailto:pulse@isoc.org) with suggestions, feature requests or offers of data

Visit [pulse.internetsociety.org](http://pulse.internetsociety.org) to sign up to our monthly newsletter

Thanks for your attention!



# Thank you.

<https://pulse.internetsociety.org/>

Rue Vallin 2  
CH-1201 Geneva  
Switzerland

11710 Plaza America Drive  
Suite 400  
Reston, VA 20190, USA

Rambla Republica de Mexico 6125  
11000 Montevideo,  
Uruguay

66 Centrepont Drive  
Nepean, Ontario, K2G 6J5  
Canada

Science Park 400  
1098 XH Amsterdam  
Netherlands

3 Temasek Avenue, Level 21  
Centennial Tower  
Singapore 039190

internetsociety.org  
@internetsociety

