

Sida

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Who is this guy?

Tor, a non-profit organization dedicated to the research and development of technologies for online anonymity and privacy.

<https://www.torproject.org>



How many people want anonymity?

No idea. We're an anonymity system.

However, the National Science Foundation has funded us to learn more:

<https://metrics.torproject.org/>

How many people want anonymity?

Some metadata about usage.

How many people want anonymity?

Around 120 million downloads of Tor in the past 12 months.

How many people want anonymity?

Around 2 million daily users from 110 countries.

Tor hides communication patterns by relaying data through volunteer servers

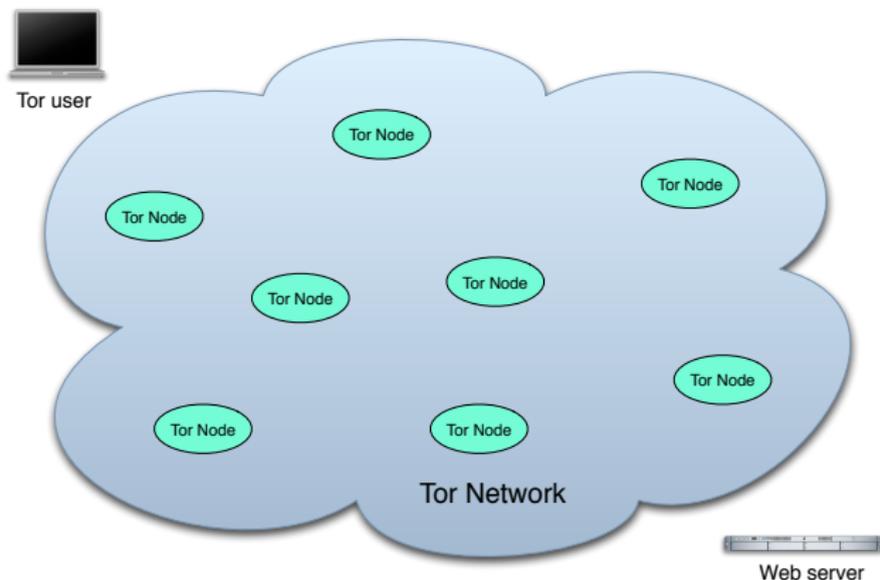


Diagram: Robert Watson

Tor hides communication patterns by relaying data through volunteer servers

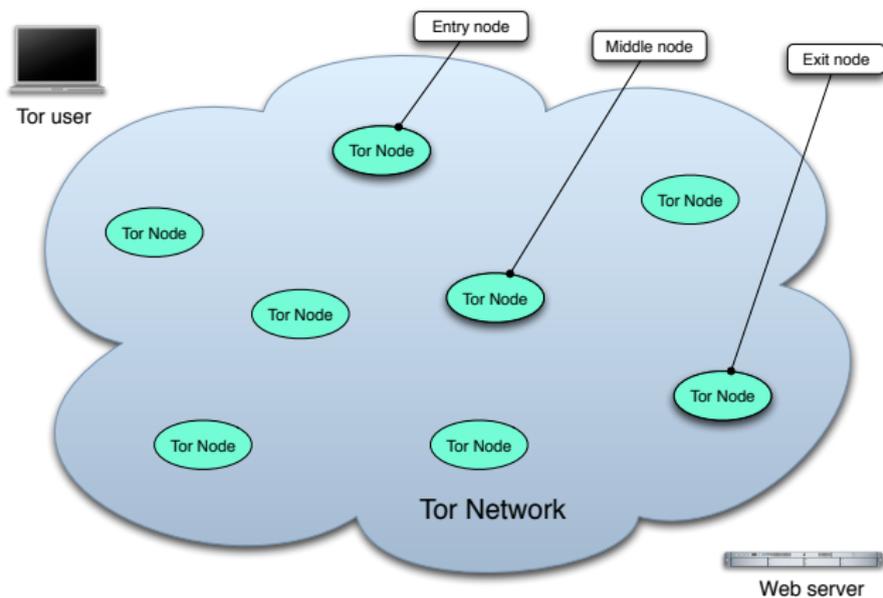


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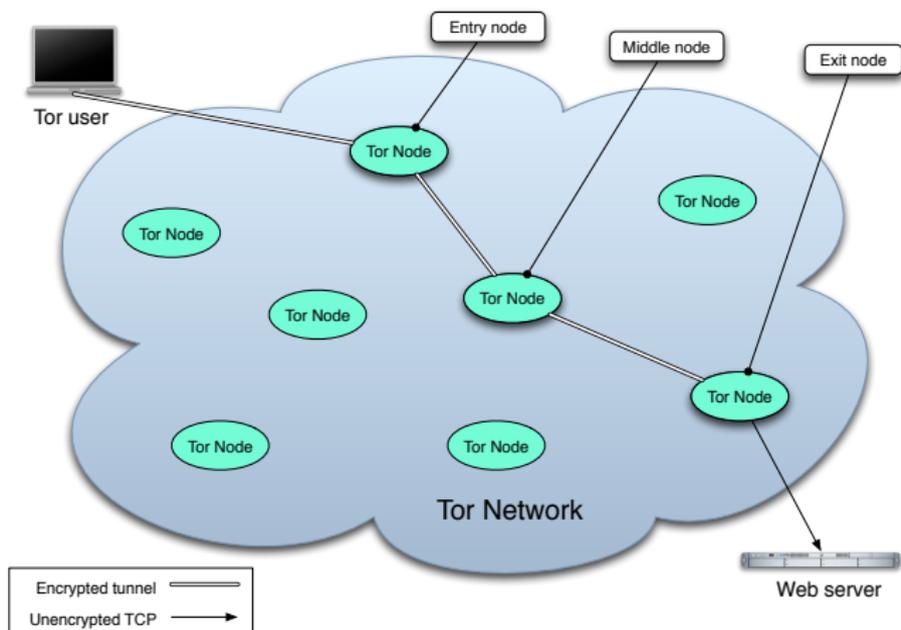
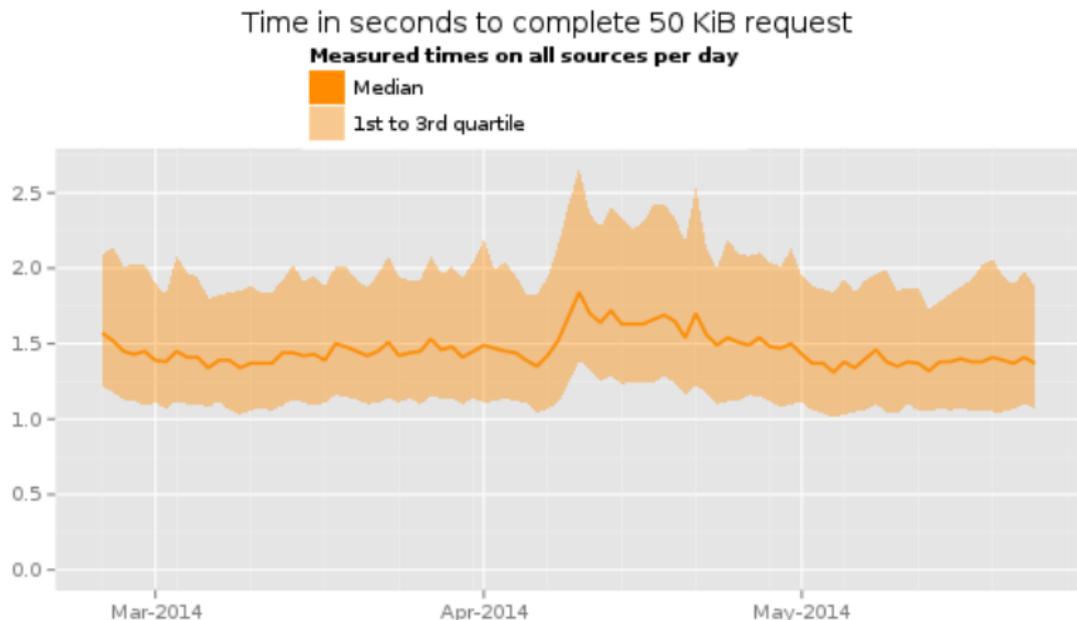


Diagram: Robert Watson

How fast is Tor?

Around 1.2 seconds added to your Internet connection.

Variance of -0.5 seconds to +0.9 seconds.



Internet Freedom

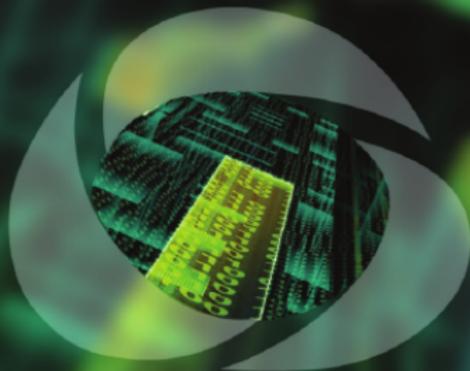
Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.

— John Perry Barlow, “A Declaration of the Independence of Cyberspace”

February 8, 1996

... applied theory...

If You Can See It
You Can **Monetize It**



Evolved DPI – See what's flowing through your network

... applied theory...

Major ISPs agree to "six strikes" copyright enforcement plan

By Nate Anderson | Published 9 months ago



American Internet users, get ready for ~~three strikes~~ "six strikes." Major US Internet providers—including AT&T, Verizon, Comcast, Cablevision, and Time Warner Cable—have just signed on to a voluntary agreement with the movie and music businesses to crack down on online copyright infringers. But they will protect subscriber privacy and they won't filter or monitor their own networks for infringement. And after the sixth "strike," you won't necessarily be "out."

... applied theory...

```
|0.541 | https > 50936 [SYN,  
| (50936) <-----> (443)  
|0.541 | 50936 > https [ACK]  
| (50936) -----> (443)  
|0.542 | Client Hello  
| (50936) -----> (443)  
|1.030 | https > 50936 [ACK]  
| (50936) <-----> (443)  
|1.033 | Server Hello,  
| (50936) <-----> (443)  
|1.124 | 50936 > https [ACK]  
| (50936) -----> (443)  
|2.079 | [TCP Previous segme  
| (50936) <-----> (443)  
|2.079 | [TCP Dup ACK 12#1]  
| (50936) -----> (443)  
|5.563 | [TCP Retransmission  
| (50936) <-----> (443)  
|5.563 | 50936 > https [ACK]  
| (50936) -----> (443)  
|6.008 | [TCP Retransmission  
| (50936) <-----> (443)  
|6.008 | 50936 > https [ACK]  
| (50936) -----> (443)  
|16.025 | Client Key Exchange  
| (50936) -----> (443)  
|17.533 | [TCP Retransmission  
| (50936) -----> (443)  
|20.735 | [TCP Retransmission  
| (50936) -----> (443)  
|21.127 | [TCP Previous segme  
| (50936) <-----> (443)  
|26.447 | 50936 > https [FIN,  
| (50936) -----> (443)  
|26.743 | Encrypted Alert  
| (50936) <-----> (443)  
|26.743 | 50936 > https [RST]  
| (50936) -----> (443)
```

... applied theory...

THE FUTURE OF PRIVACY FORUM
WWW.FUTUREOFPRIVACY.ORG



Helping Survivors of Abuse

- ▶ White House Human Trafficking Task Group 3

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- ▶ Conversations with Riksorganisationen för kvinnojourer och tjejjourer i Sverige and Män för Jämställdhet

... spring is in the air...



The Tor Project is People

33 core people. 6 female and 27 male.

The Tor Project is People

12 countries. Virtual team, virtual office.

The Tor Project is People

we talk via email, IRC, and XMPP.

The Tor Project is People

5,000+ volunteers, 85 countries.

Software - Products

We focus on four main products:

1. Tor Browser, <https://www.torproject.org/projects/torbrowser>

File Edit View History Bookmarks Tools Help

About Tor

about:tor

DuckDuckGo

Tor Browser
3.6.1-Linux



Congratulations!

This browser is configured to use Tor.
You are now free to browse the Internet anonymously.
[Test Tor Network Settings](#)

Search securely with Startpage.

What Next?

Tor is NOT all you need to browse anonymously! You may need to change some of your browsing habits to ensure your identity stays safe.

[Tips On Staying Anonymous >](#)

You Can Help!

There are many ways you can help make the Tor Network faster and stronger:

- [Run a Tor Relay Mode >](#)
- [Volunteer Your Services >](#)
- [Make a Donation >](#)

The Tor Project is a US 501(c)(3) non-profit dedicated to the research, development, and education of online anonymity and privacy. [Learn more about The Tor Project >](#)

Software - Products

We focus on four main products:

2. Pluggable Transports,

<https://www.torproject.org/docs/pluggable-transport>



Software - Products

We focus on four main products:

4. Measuring and reporting and sharing all of our data on the Tor Network via atlas, compass, and metrics,

<https://atlas.torproject.org>

<https://compass.torproject.org>

<https://metrics.torproject.org>

Software - Products

We focus on four main products:

... however we have 14 external products, and another 20 internal products.

Software - Tor Ecosystem

Growing ecosystem of products:

- ▶ Tails, Anonymous Live Operating System,
<https://tails.boum.org>

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- ▶ Torrouter, Tor in a hardware router, <https://trac.torproject.org/projects/tor/wiki/doc/Torrouter>

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- ▶ Onion Browser, Tor Browser remix for iPhones and iPads, <https://mike.tig.as/onionbrowser/>
- ▶ OnionShare, anonymous peer to peer file sharing, <https://github.com/micahflee/onionshare>
- ▶ OnionPi, Torrouter in Raspberry Pi hardware, <https://learn.adafruit.com/onion-pi/overview>

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- ▶ OnionPi, Torrouter in Raspberry Pi hardware, <https://learn.adafruit.com/onion-pi/overview>
- ▶ Courier, Secure News Reader, <https://guardianproject.info/apps/courier/>

Company

The Tor Project, Inc runs on free software.

Company

We believe in transparency and sharing.

Caring is sharing.

Copying is an act of love. <http://copyheart.org/>

Company

Our code, designs, and content are all freely licensed (3-Clause BSD, GPL, or CC-BY-3.0).

We publish our tickets, discussions, and contract details for the world on our wiki, <https://wiki.torproject.org>.

Thanks!



Visit <https://www.torproject.org> for more information, links, and ideas.

Copyrights and Links

- ▶ applied theory, third image: Information Week, 2011-04-09,
<http://www.informationweek.com/news/security/attacks/229400850>
- ▶ spring is in the air, Paco Pomet,
<http://pacopomet.wordpress.com/>
- ▶ Boston Globe article,
<http://betaboston.com/news/2014/05/07/as-domestic-abuse-goes-digital-shelters-turn-to-counter-surveillance-with-tor/>
- ▶ Vice article, <http://motherboard.vice.com/read/tor-is-being-used-as-a-safe-haven-for-victims-of-cyberstalking>
- ▶ Think Progress article,
<http://thinkprogress.org/culture/2014/04/29/3432050/can-you-hide-from-big-data/>