

Circumventing Internet censorship with Tor

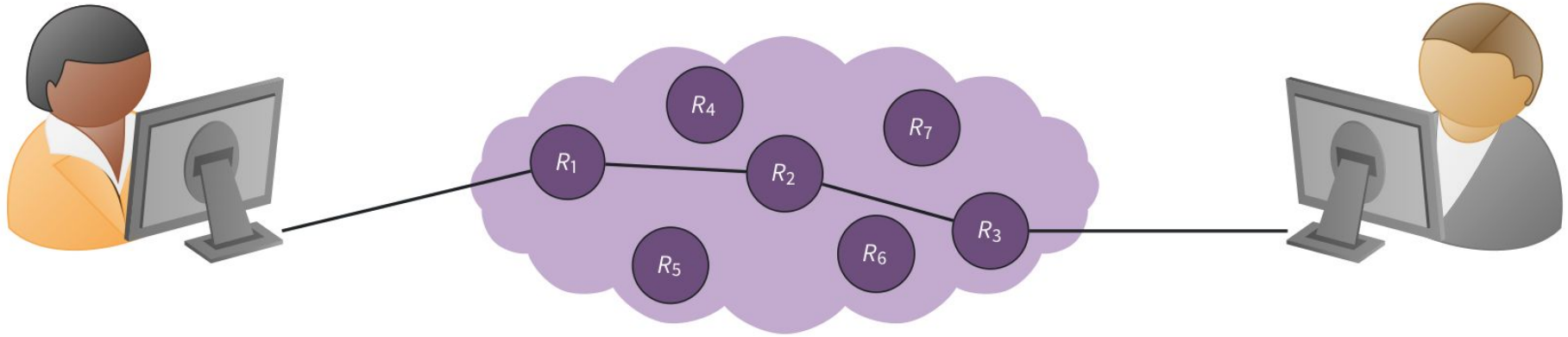
Philipp Winter
The Tor Project

What Tor Browser does

Alice

Anonymity Network

Bob



108 ~~CENSORED~~ 40

Obscures your Real IP Address



Prevents Network Observation



Prevents Location Determination



Blocks Fingerprinting



Prevents Cross-Site Correlation



Isolates Cookies & Scripts



Writes Nothing to Disk



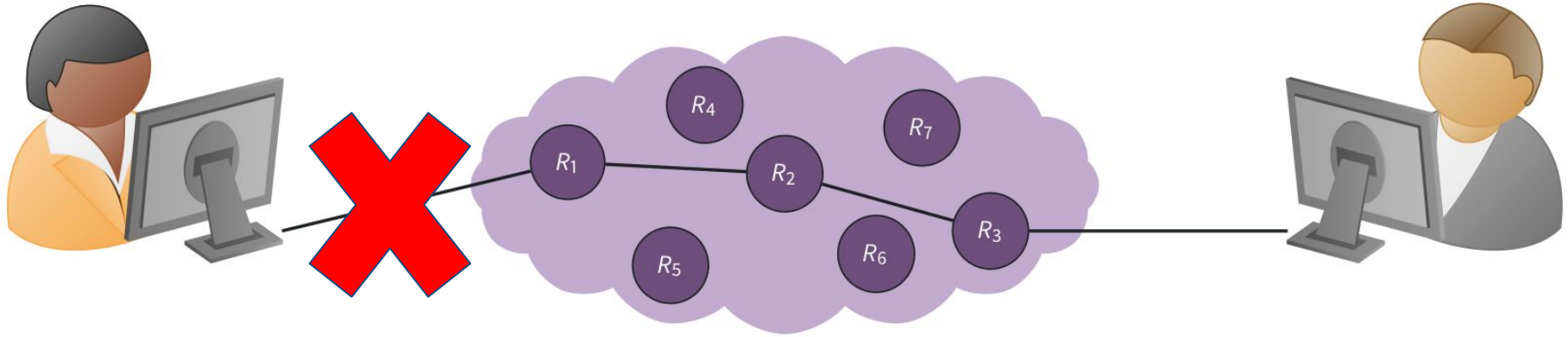
No Browser History

“Standard” Tor is easy to block

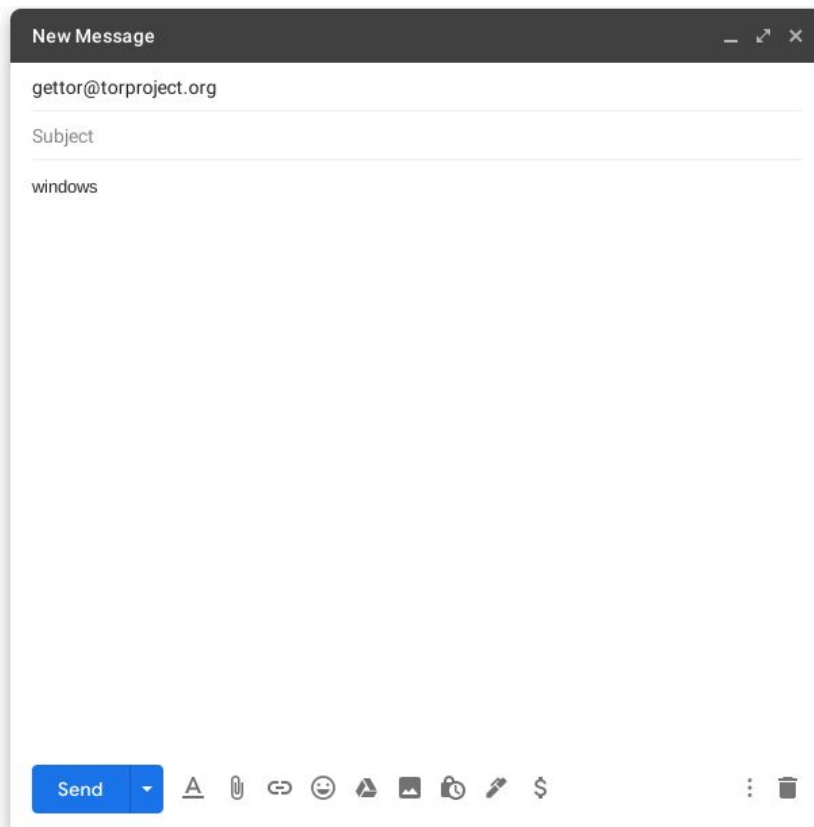
Alice

Bob

Anonymity Network



GetTor helps you get Tor Browser



GetTor helps you get Tor Browser



gettor@torproject.org

to me ▾

This is an automated email response from **GetTor**.

You requested **Tor** Browser for windows.

Step 1: Download **Tor** Browser

First, try downloading **Tor** Browser from either GitLab or GitHub:

gitlab: https://gitlab.com/thetorproject/torbrowser-9-5-windows/raw/master/torbrowser-install-9.5_id.exe

Signature file: https://gitlab.com/thetorproject/torbrowser-9-5-windows/raw/master/torbrowser-install-9.5_id.exe.asc

github: https://github.com/torproject/torbrowser-releases/releases/download/torbrowser-release/torbrowser-install-9.5_id.exe

Signature file: https://github.com/torproject/torbrowser-releases/releases/download/torbrowser-release/torbrowser-install-9.5_id.exe.asc

If you cannot download **Tor** Browser from GitLab or GitHub,
try downloading the file torbrowser-install-9.5_id.exe
from the following archives:

Internet Archive: <https://archive.org/details/@gettor>

Google Drive folder: <https://drive.google.com/open?id=13CADQTsCwrGsIID09YQbNz2DFRMUoxUU>

Tor Browser ships with “default bridges”

- Bridges are effectively public but work for many people
 - Fifteen obfs4 bridges
 - One meek bridge
 - One Snowflake bridge

BridgeDB helps you get bridges

BridgeDB

Language ▾

The Tor Project

Step 1 Download [Tor Browser](#)

Step 2 Get [bridges](#)

Step 3 Now [add the bridges to Tor Browser](#)

What are bridges?

[Bridges](#) are Tor relays that help you circumvent censorship.

I need an alternative way of getting bridges!

Another way to get bridges is to send an email to bridges@torproject.org. Please note that you must send the email using an address from one of the following email providers: [Riseup](#) or [Gmail](#).

BridgeDB helps you get bridges

BridgeDB

Language ▾

The Tor Project



What are bridges?

Bridges are Tor relays that help you circumvent censorship.

I need an alternative way of getting bridges!

Another way to get bridges is to send an email to bridges@torproject.org. Leave the email subject empty and write "get transport obfs4" in the email's message body. Please note that you must send the email using an address from one of the following email providers: [Riseup](#) or [Gmail](#).

BridgeDB helps you get bridges

BridgeDB

Language ▾

The Tor Project

Here are your bridge lines:

```
178.22.75.22:8080 13C92B8B7F2C298712B21A8C48494408901  
178.22.228.22:8080 981C298712B21A8C48494408901
```

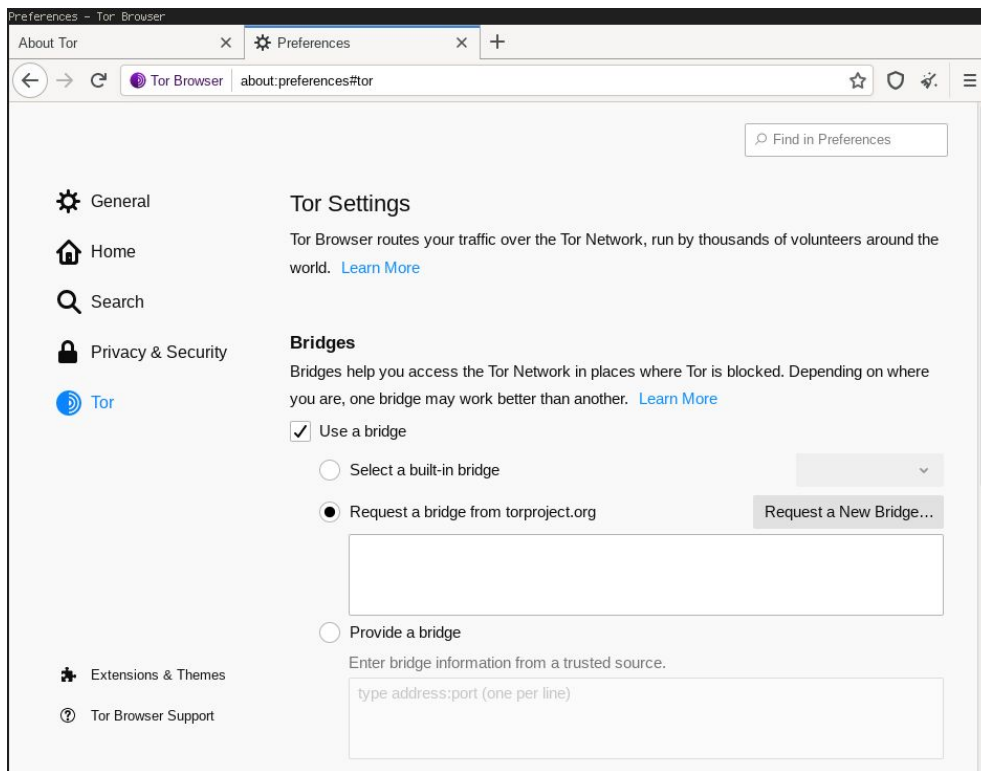


Select All



Show QRCode

BridgeDB helps you get bridges



Different types of “bridges”

- obfs4
 - The protocol itself should work everywhere
 - Private obfs4 bridges work in China!
- meek
 - Works everywhere but is slow :-)
- Snowflake
 - Currently only in Tor Browser alpha

What's new in anti-censorship?

Anti-censorship team

- We move forward all things anti-censorship
 - Improve **circumvention systems** and document **censorship systems**
 - **Coordinate** with other projects, our community, and academia
- Come join our **weekly meetings!**
 - More info: <https://pad.riseup.net/p/tor-anti-censorship-keep>

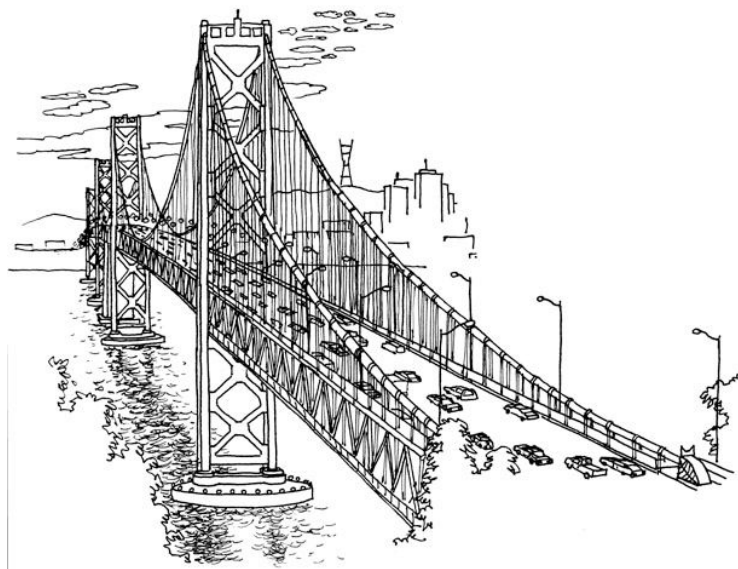
Snowflake

- Incorporated TurboTunnel
- Added Snowflake to Tor Browser alpha
- Numerous [reliability](#) and [usability](#) fixes
- We now have [thousands](#) of volunteer proxies
- We're working on an [Android proxy app](#) for volunteers to run on their phones



BridgeDB

- Fixed many **usability** issues
 - Better email autoresponder
 - Relay Search shows distribution mechanism
 - Better CAPTCHAs
- Added **usage metrics**
- Many changes **under the hood**



Bridges

- Wrote bridge setup guides for eleven operating systems
 - <https://community.torproject.org/relay/setup/bridge/>
- Obfs4 bridge docker image
 - <https://hub.docker.com/u/thetorproject/>
- Test your bridge's pluggable transport port
 - <https://bridges.torproject.org/scan/>

Scaling & monitoring infrastructure

- Outage monitoring
- Default bridge maintenance
- Increased number of bridges



What's next?

What's next

Make Snowflake stable



What's next

- Implement [Salmon](#) bridge distributor
- Build [feedback loop](#) between BridgeDB and OONI
- Test bridges before handing them out



What's next

Make Tor Browser smarter



We need your help!

- Help us set up **relays**, **bridges**, and **snowflakes**
- Help us write **code**
 - Most of our code is in Golang and Python
- Help us document and analyse **copyright**
- Best way to get started: our weekly **IRC meetings!**



Questions?

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