

# Onion Routing via **Tor**

Be truly anonymous on the Internet.



[Watch on YouTube](#) 

**Demonstration:**

**Try out**

**Tor Browser Bundle**

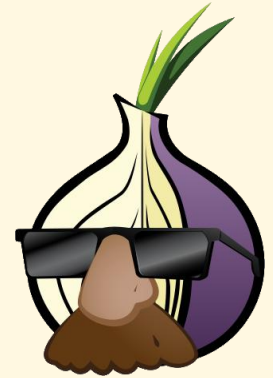
# Anonymous Web Browsing

## [Download Tor Browser Bundle](#)

It's Firefox, but anonymous! Security plugins pre-installed.

### **Tor is the standard for anonymity.**

The Tor network thwarts the NSA's best efforts to break it (we know this [thanks to Snowden](#)).



Let's check the hash!

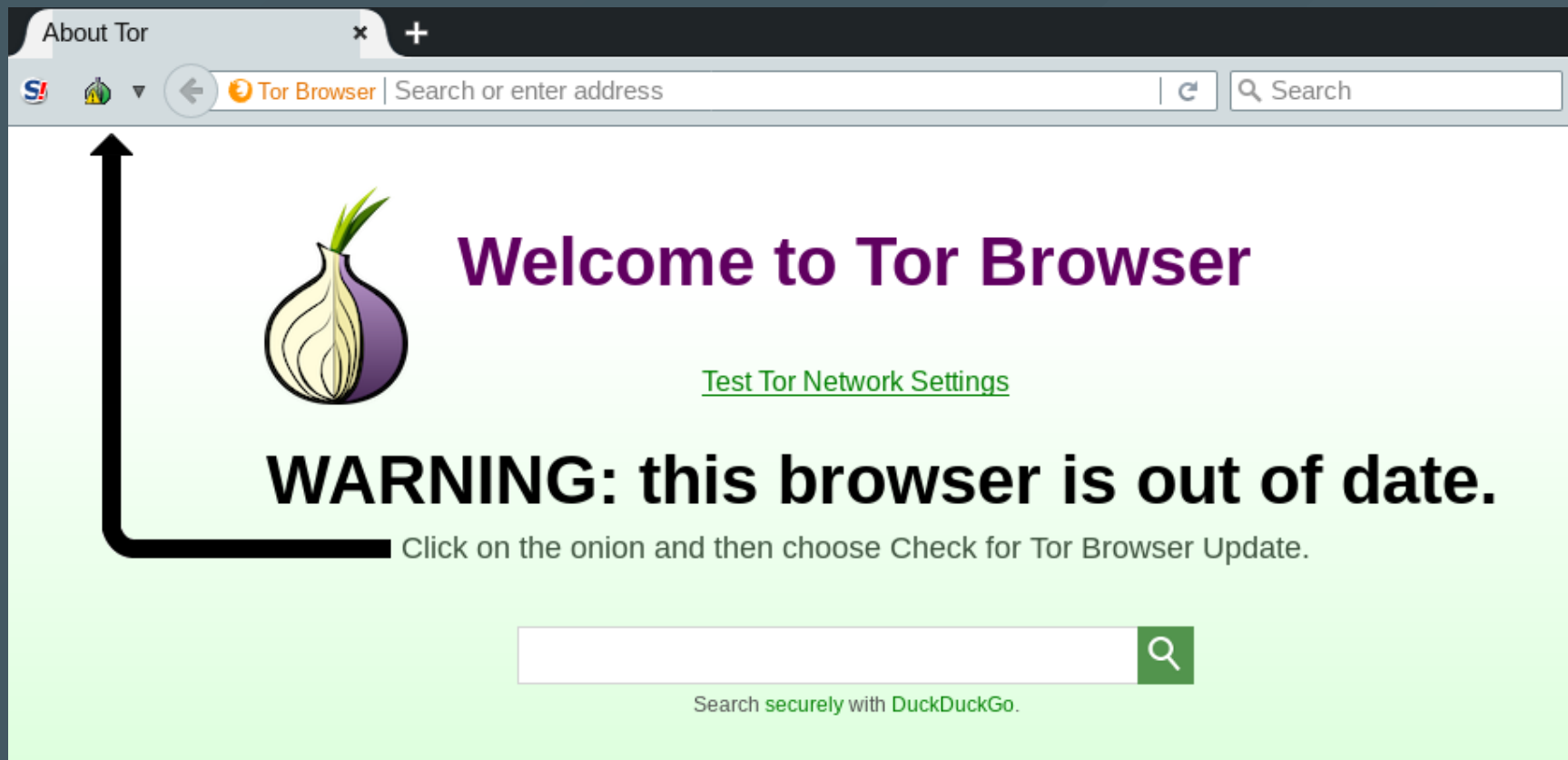
- **On Windows:** [Checksum Utility](#)
- **On macOS:** in CLI `shasum -a 256 filename`
- **On GNU/Linux:** in CLI `sha256sum filename`

# Tor is Not a Magic Bullet

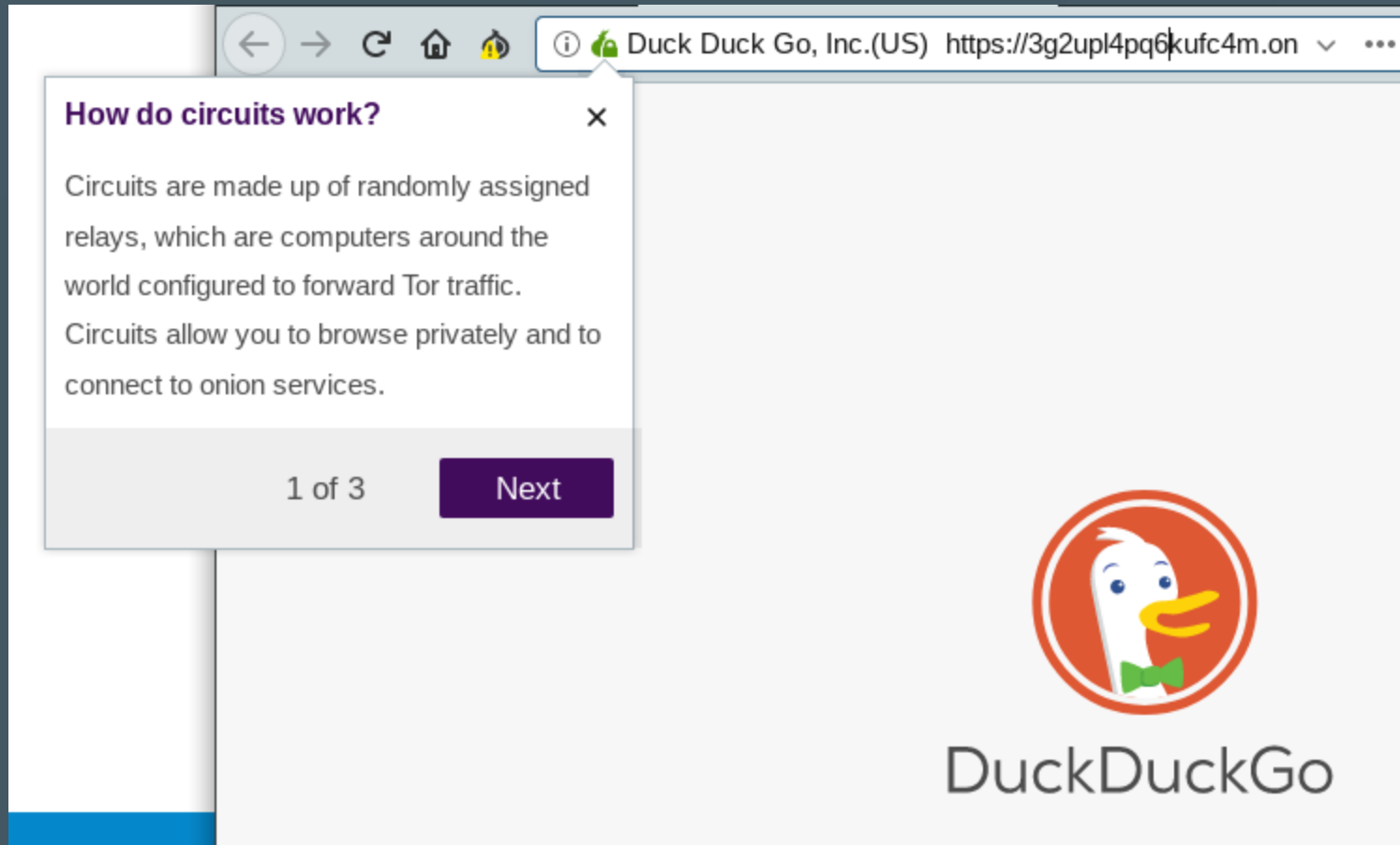
Solid Operations Security (OPSEC) is important, and you may have to configure your

- Vulnerabilities may occur over time, so **update often** (TBB will nag you!)
- **TBB Settings:** Go with the defaults. Customization makes you more susceptible to [browser fingerprinting](#).
- **Bridges:** [Use if Tor is blocked](#) or you need extra protection.

# Stay Updated!!!!!!!!!!!!111



# What's a Tor Circuit?





DuckDuckGo — Privacy

Duck Duck Go, Inc.(US) <https://3g2upl4pq6kufc4m.on> Search

Duck Duck Go, Inc.  
Secure Connection

Tor Circuit

- This browser
- Panama 198.50.211.194 **Guard**
- France 217.182.52.249
- France 51.15.65.25
- Relay
- Relay
- Relay
- 3g2upl4pq6kufc4m.onion

New Circuit for this Site

Your **Guard** node may not change. [Learn more](#)

Permissions  
You have not granted this site any special permissions.

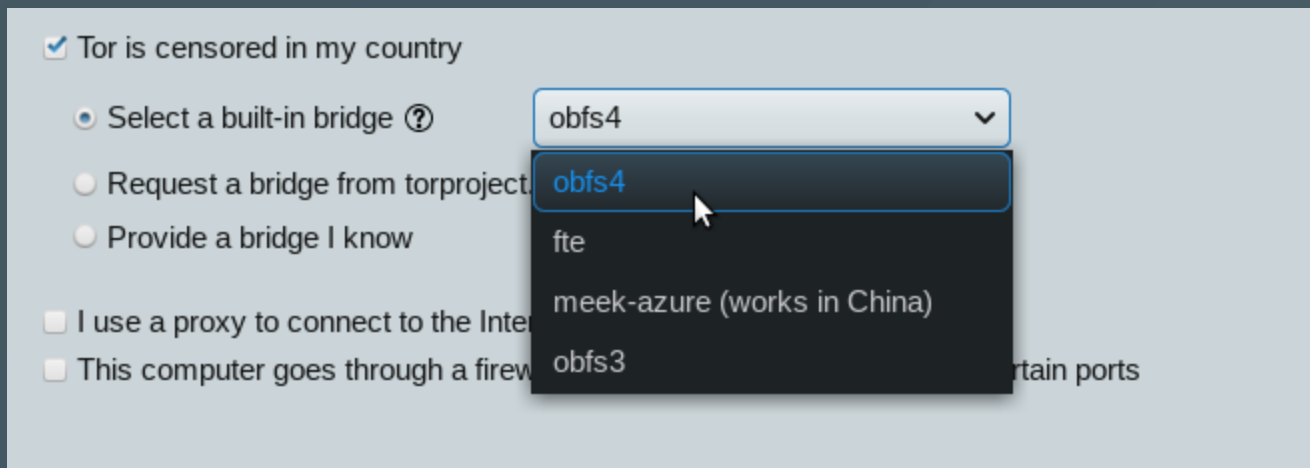
**Do you need a new circuit?**

If you are not able to connect to the website you're trying to visit or it is not loading properly, then you can use this button to reload the site with a new circuit.

3 of 3 Done



# Use a Bridge to beat censorship



A screenshot of the Tor Project's bridge selection interface. The interface is light gray with a list of options. The first option is 'Tor is censored in my country' with a checked checkbox. Below it are three radio button options: 'Select a built-in bridge (?)', 'Request a bridge from torproject', and 'Provide a bridge I know'. The first option is selected. A dropdown menu is open for 'Select a built-in bridge (?)', showing a list of bridge types: 'obfs4', 'obfs4' (highlighted with a mouse cursor), 'fte', 'meek-azure (works in China)', and 'obfs3'. Below the radio buttons are two unchecked checkboxes: 'I use a proxy to connect to the Internet' and 'This computer goes through a firewall on certain ports'.

☒ Tor is censored in my country

☒ Select a built-in bridge (?)

☐ Request a bridge from torproject

☐ Provide a bridge I know

☐ I use a proxy to connect to the Internet

☐ This computer goes through a firewall on certain ports

obfs4

obfs4

fte

meek-azure (works in China)

obfs3

<https://tb-manual.torproject.org/bridges/>

# Rolling in the Deep

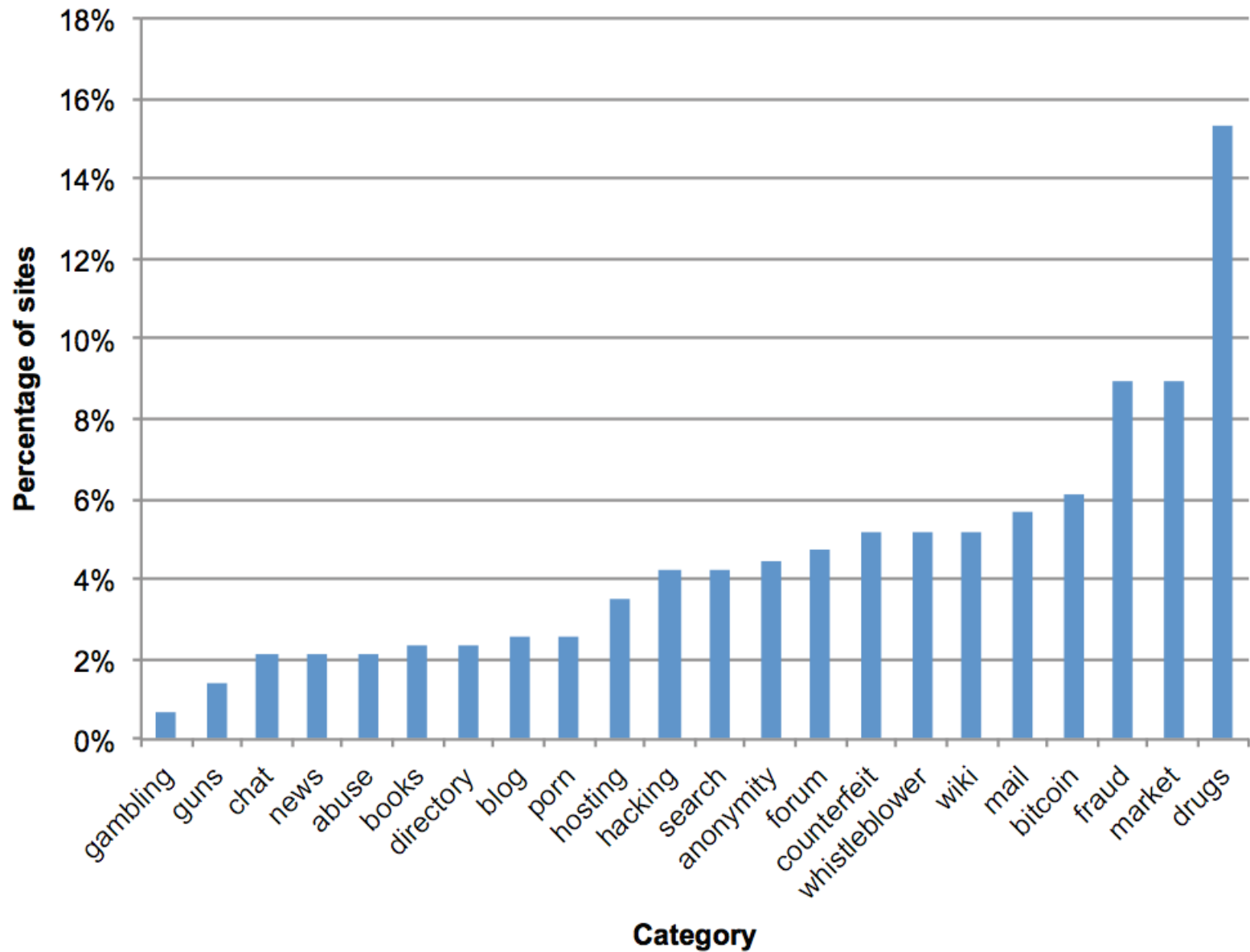


[SecureDrop](#), [Wikileaks](#) submissions and other anonymous [.onion](#) services run on the Tor network.

Use TBB for the "normal" Web **and** the [Deep Web](#).

- [\*\*Onion Sites That Don't Suck\*\*](#)

**Remember:** True security and anonymity requires hard work and careful actions to get right ([OPSEC](#)).

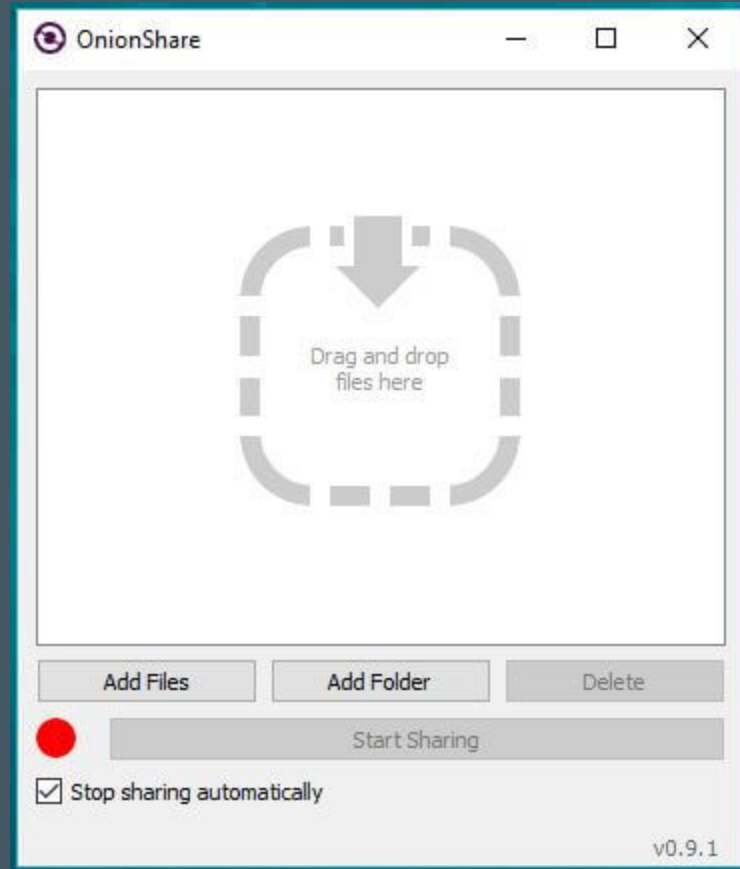


More Info: [2014 study](#) | [2016 article](#)

# **More Fun With Tor!**

**There are many apps that rely upon  
Tor for communication, and even  
entire operating systems.**

**Here are some examples.**



**OnionShare: An easy way to share files via .onion URLs.**

[KEEP ME UPDATED](#)[HOME](#)[DOWNLOAD](#)[HOW IT WORKS](#)[ABOUT US](#)[GET INVOLVED](#)

## How It Works

Briar is a messaging app designed for activists, journalists, and anyone else who needs a safe, easy and robust way to communicate. Unlike traditional messaging apps, Briar doesn't rely on a central server - messages are synchronized directly between the users' devices. If the internet's down, Briar can sync via Bluetooth or Wi-Fi, keeping the information flowing in a crisis. If the internet's up, Briar can sync via the Tor network, protecting users and their relationships from surveillance.

The [manual](#) describes how to use Briar and the features that are available. Technical details are available on the [wiki](#).



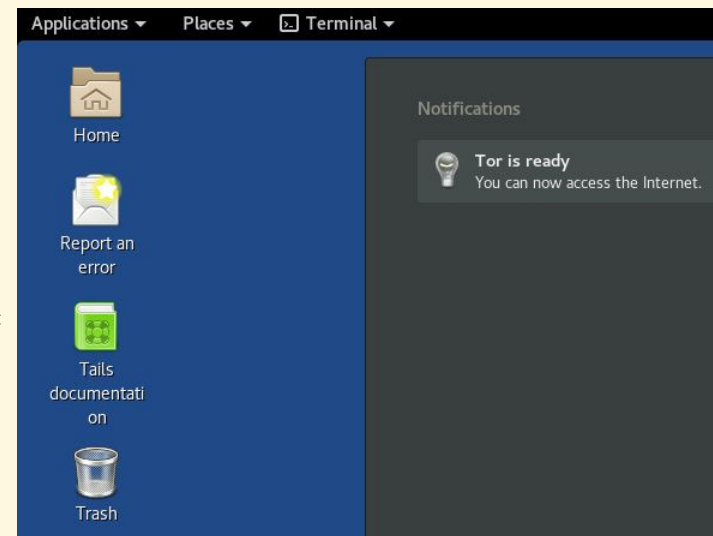
**Briar uses direct, encrypted connections between users to prevent surveillance and censorship.**

**Briar:** [briarproject.org](https://briarproject.org)

# Tails is the Tor operating system

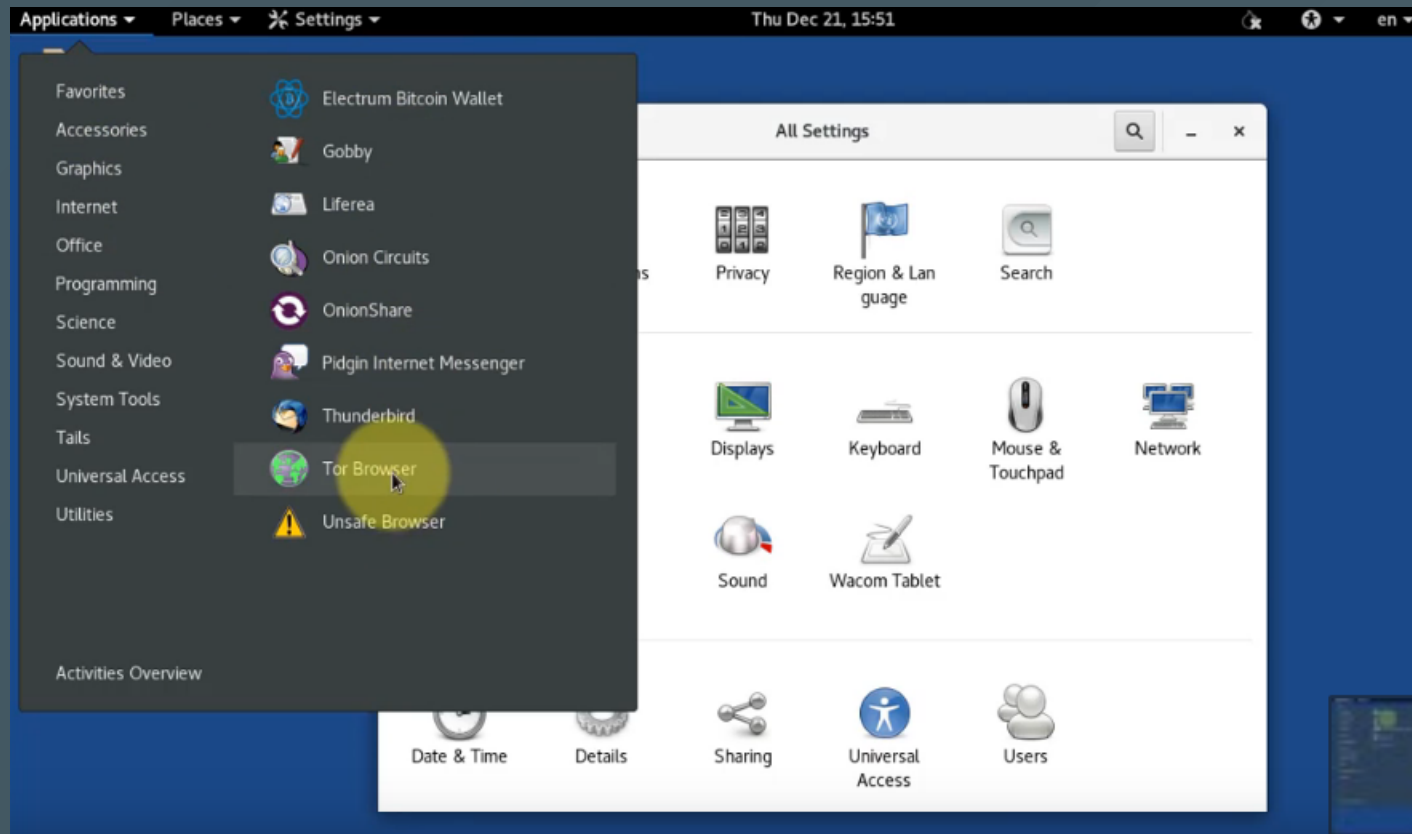
## Follow the [Tails Installation Assistant](#)

- Tails **does not use your hard drive**, or require any hard drive at all.
- Tails boots from USB stick, CD/DVD, or [virtual machine](#).
- You may optionally set up [persistent storage](#) for Tails. Otherwise, all files go **\*poof\*** when you shut down.



Another Option: [Whonix](#)

# Video: Try Tails via USB or VirtualBox



[Watch on YouTube](#) 