

# Short Introduction to Tor

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What is Tor

Tor in a Nutshell

Dos and Don'ts

Hidden Services

Where to go from here

## Trivia

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- ▶ Tor is acronym for The Onion Router
- ▶ Is infamously known in the media as “The Dark Web”
- ▶ mid 1990s Onion Routing was developed
- ▶ In 2002 the first alpha version of Tor was released
- ▶ In 2004 Tor was released as free and open source
- ▶ In 2006 The Tor Project was founded

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<sup>1</sup>[https://en.wikipedia.org/wiki/Tor\\_%28anonymity\\_network%29](https://en.wikipedia.org/wiki/Tor_%28anonymity_network%29)

## Users of Tor

- ▶ Journalists
- ▶ IT Professionals
- ▶ People that
  - ▶ Want to protect their privacy
  - ▶ Hide from targeted marketing
  - ▶ Want to access censored websites
  - ▶ Blog/tweet without being traced
  - ▶ ...
- ▶ Human rights activists (HRW, EFF, ...)
- ▶ Military
- ▶ Intelligence agencies
- ▶ ...

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<sup>1</sup><https://www.torproject.org/about/torusers.html.en>

# Terminology

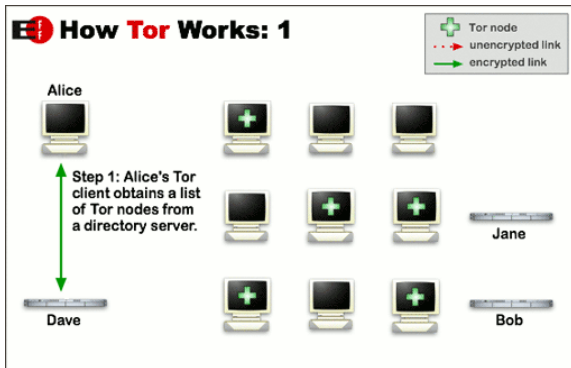
## Tor

- ▶ Bridge Node
- ▶ Relay
- ▶ Exit Node

## Crypto

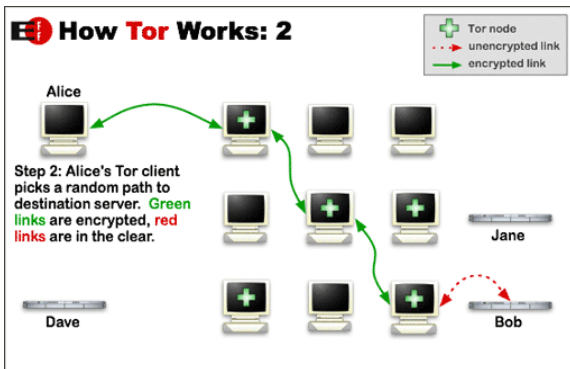
- ▶ Alice
- ▶ Bob

## Directory listing



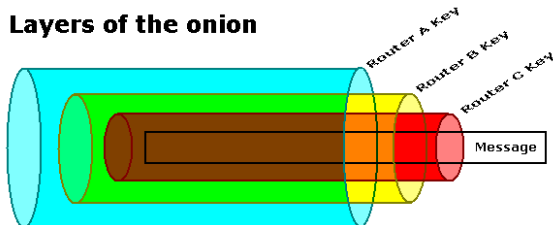
<sup>1</sup>Source: <https://www.torproject.org/about/overview.html.en>

# Onion Routing



## Not Entirely Unlike Ogres

### Layers of the onion



### Routing path

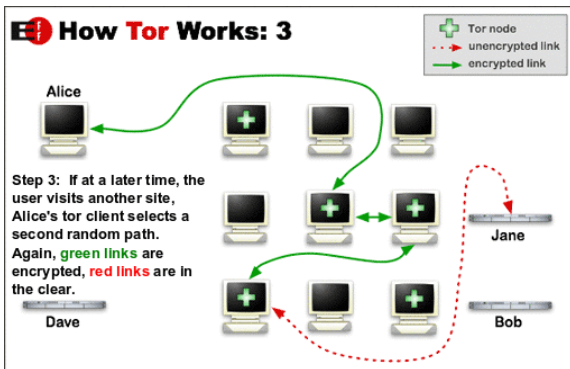


<sup>1</sup>[https:](https://upload.wikimedia.org/wikipedia/commons/7/7d/Onion_diagram.png)

[//upload.wikimedia.org/wikipedia/commons/7/7d/Onion\\_diagram.png](https://upload.wikimedia.org/wikipedia/commons/7/7d/Onion_diagram.png)



# Anonymity



## Do

- ▶ Use it when you need anonymity
- ▶ Use it to help others obtain anonymity by
  - ▶ Setting up a Tor node
  - ▶ Use Tor responsibly
- ▶ Learn more

## Don't

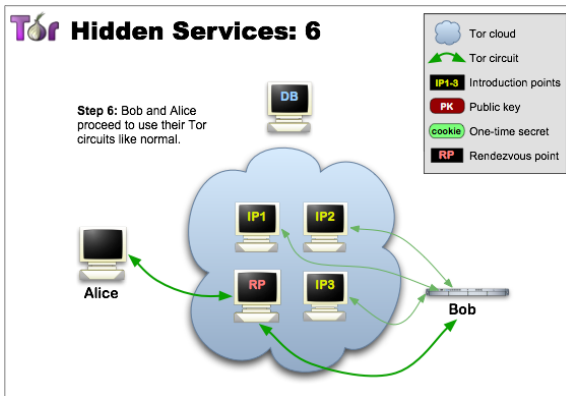
- ▶ Download binaries
- ▶ Use it for illegal purposes
- ▶ Torrent
- ▶ Trust anything blindly

## Important notice!

Being anonymous on the internet  
does not allow you to hurt people or  
to be an asshole!

## Hidden Services

- Anonymous sender *and* receiver



<sup>1</sup><https://www.torproject.org/docs/hidden-services.html.en>

# Resources

**WWW** <https://torproject.org>

**IRC** #tor on irc.oftc.net

**Mail** <https://lists.torproject.org/cgi-bin/mailman/listinfo/tor-talk/>

**Slides** <https://github.com/rlindsgaard/presentations/2015-01-24-short-introduction-to-tor/>

#cryptopartycph on irc.freenode.net