

Tor Project.org

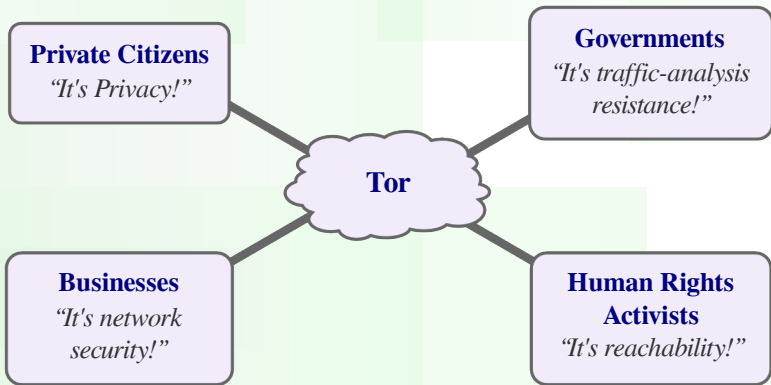
Andrew Lewman
andrew@torproject.org

The Tor Project, Inc.

501(c)(3) non-profit organization
dedicated to the research and
development of technologies for
online anonymity and privacy



Tor serves different interests for different user groups:



What is Tor?

- Online anonymity software and network
- Open source, freely available
- 3-clause BSD licensed
- CC-BY-3.0 Documentation and media

What is Tor?

Active research environment:

*National Science Foundation,
University of Waterloo, UMN,
Georgia Tech, Princeton, UIUC,
Drexel, Boston Univ, Naval Research
Lab, UC-London, Indiana Univ.,
Univ. of Cambridge*

What is Tor?

Increasingly diverse toolset:

Tor, Tor Browser Bundle, Tails LiveCD, Tor Weather, Tor auto-responder, Secure Updater, Orbot, Torora, Tor Check, Arm, Nymble, Tor Control, and so on.

Current Projects

- Knight Foundation
- Internews Network
- SRI International
- Broadcasting Board of Governors
- National Science Foundation
- Radio Free Asia
- Swedish International Development and Cooperation Agency

Who Uses Tor?

- Law Enforcement
- Abuse Victims
- Human Rights Activists
- Military
- Business Executives
- Normal People



**Estimated 500k to 1 million
daily users worldwide**



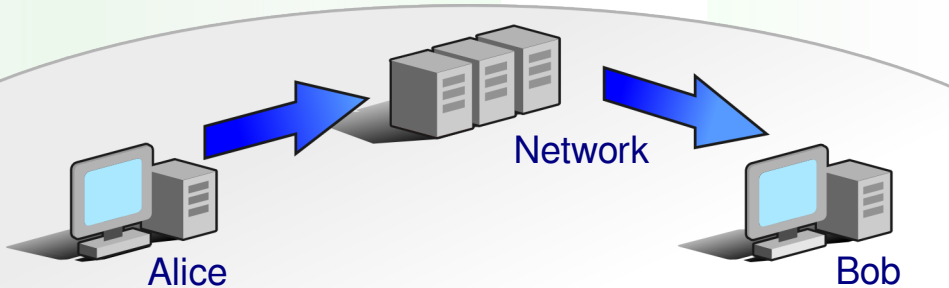
How is Tor different?

VPNs, HTTP/HTTPS proxies,
I2P, Freenet, Swarm,
Retros hare, Vanish

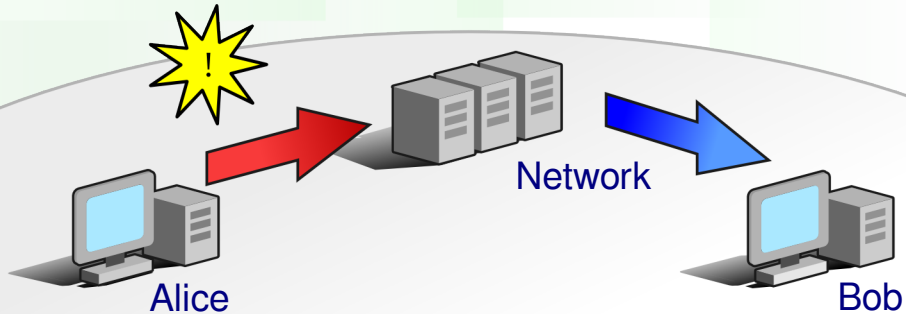
vs.

JonDos and Tor

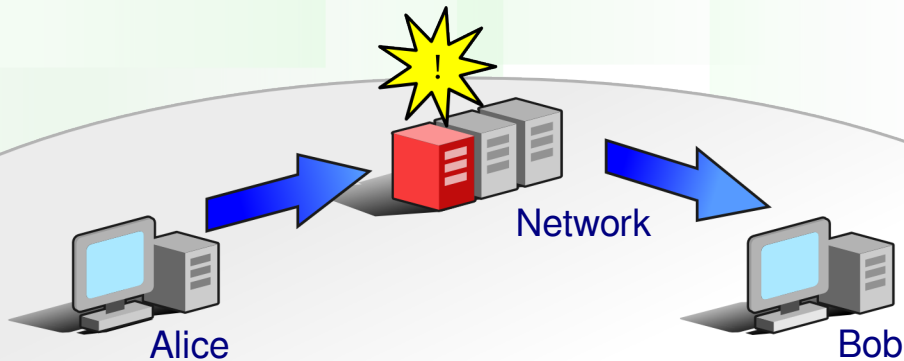
A Typical Internet Connection



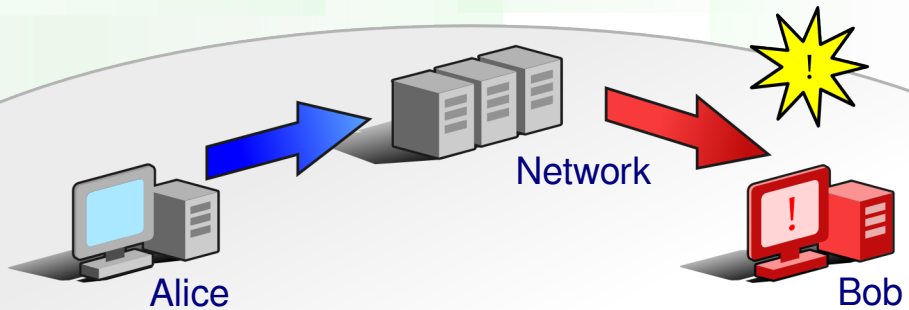
Alice might be watched.



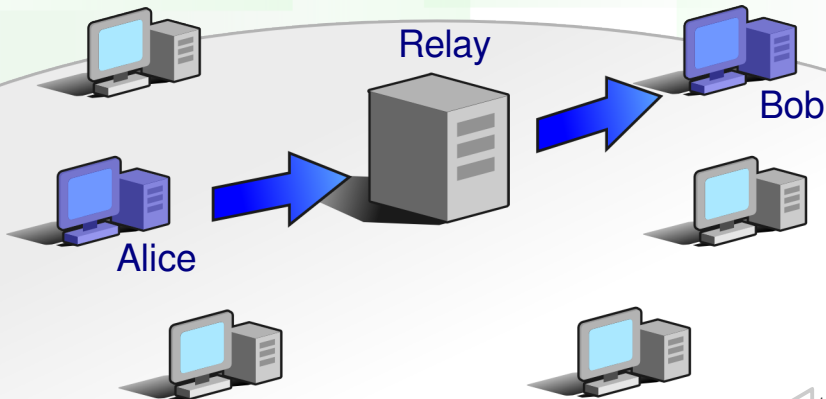
Parts of the network could be monitored.



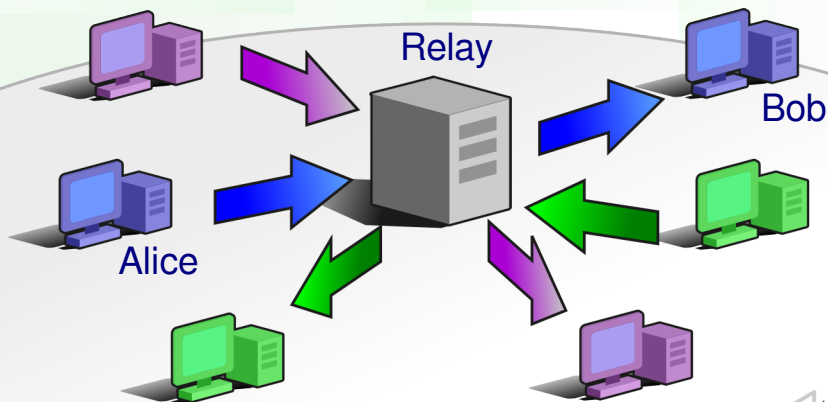
Bob could be compromised.



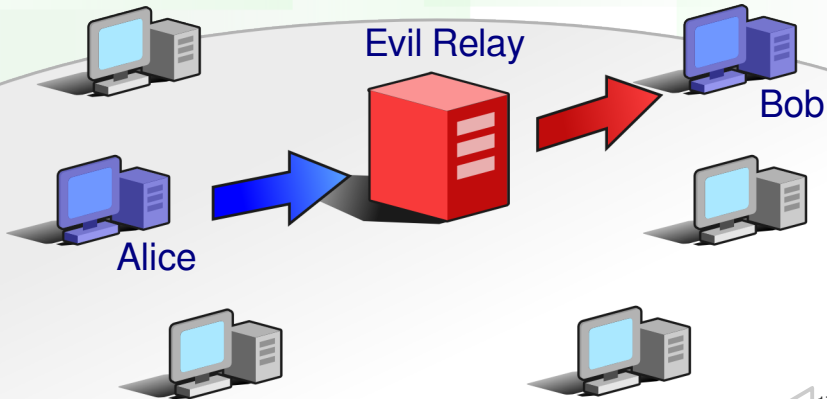
How is Tor Different?



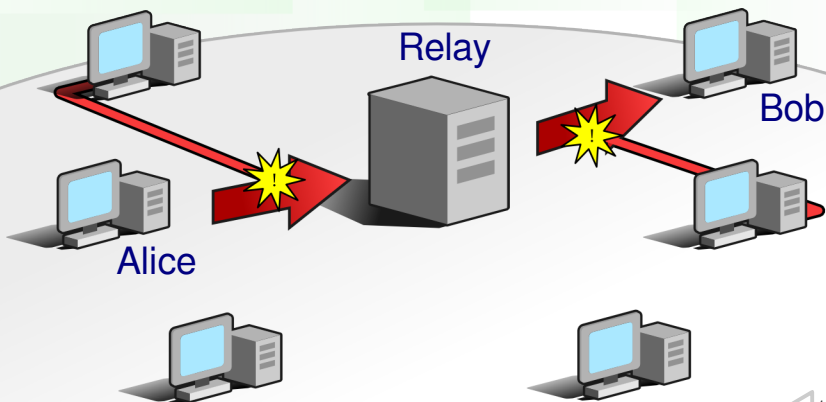
A Basic Relay System



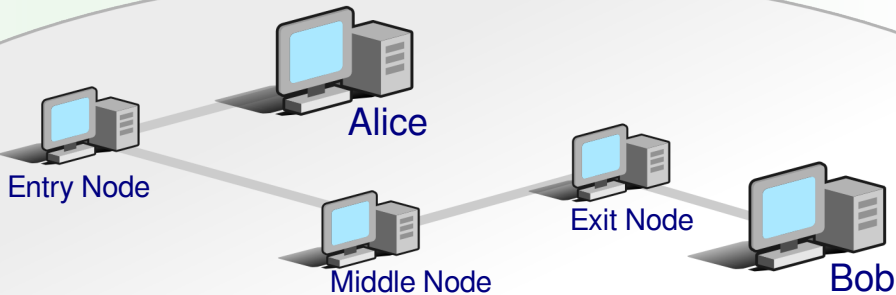
An Evil Relay



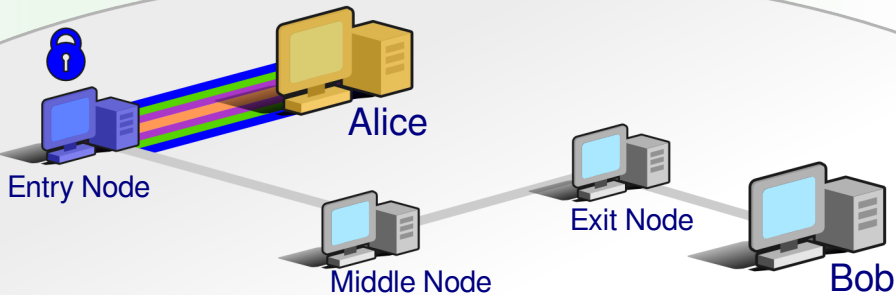
An Evil Network



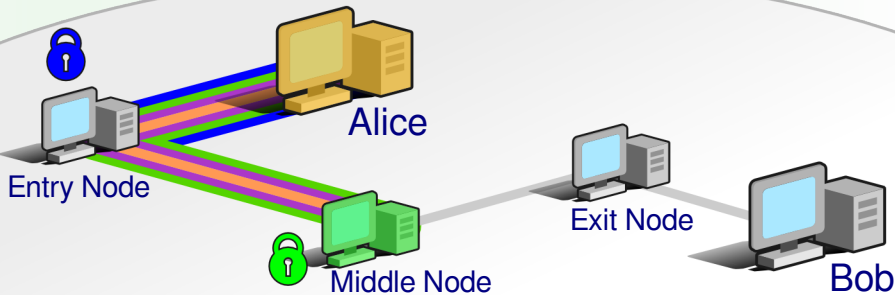
How Tor Works



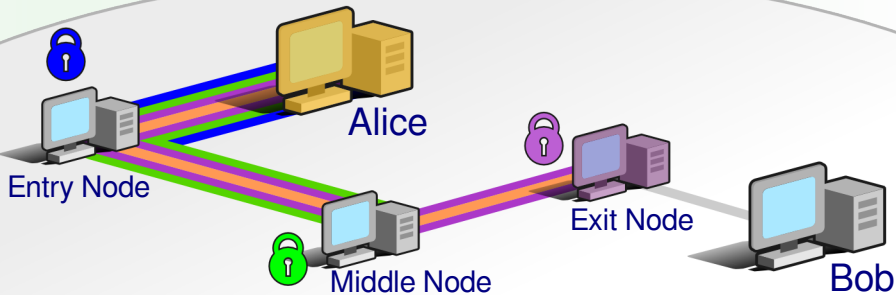
Alice connects to an Entry Node.



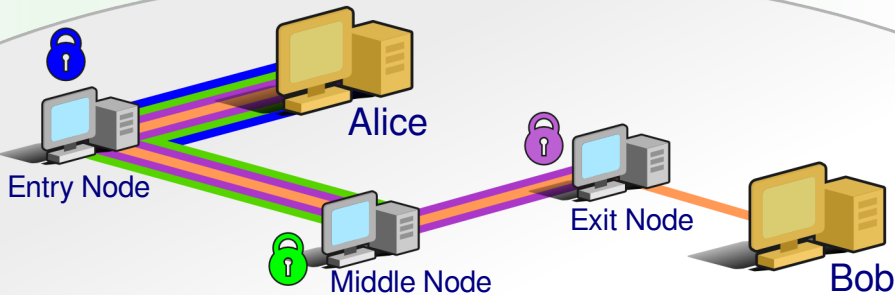
The data is routed through a Middle Node.



The data is routed through an Exit Node.



Alice's circuit to Bob is established.



Network Map

The screenshot shows a network map application interface. At the top, there is a toolbar with icons for Refresh, Zoom In, Zoom Out, Zoom To Fit, Help, and Close. Below the toolbar is a list of relays, each with a small icon and a name. The main area is a world map with a green line connecting a relay in North America to a relay in Europe. Below the map, there are two panels: a 'Connection' table and a 'Details' panel for the selected relay.

Relay List:

- chaoscomput...
- bolobolo2
- sofia
- gorz
- chaoscomput...
- chaoscomput...
- chaoscomput...
- bolobolo3
- wau
- bolobolo1
- TorLand2
- TorLand1
- BigBoy
- Ramsgate
- rainbowwarrior
- chomsky
- lumumba
- politkovskaja
- politkovskaja2
- tornodevienn...
- chaoscomput...
- chaoscomput...
- chaoscomput...
- chaoscomput...
- Kromyon1WH2A
- ask
- Unnamed
- svph3vat
- Unnamed
- kramse
- Faravahar2
- bach
- noiseexit01b
- raskin
- ask2
- bouaziz
- psilotorlu
- oilsrv1
- hervgaard
- Unnamed
- kimya
- xorox

Connection Table:

Connection	Status
bwagnet.veebikaamera.chomsky	Open
bwagnet.spotlessmoon.chaos...	Open

bwagnet (Online) Details:

- Location:** France
- IP Address:** 91.121.166.158
- Platform:** Tor 0.2.3.20-rc on Linux
- Bandwidth:** 4.36 MB/s
- Uptime:** 29 days 6 hours 9 mins 2 secs
- Last Updated:** 2012-09-19 09:21:32 GMT

veebikaamera (Online) Details:

- Location:** Estonia
- IP Address:** 81.21.246.66









A photograph of a building facade made of grey stone blocks. Two windows are visible, one in the center and one to the right. The right window has a sign that says "Activist Attic Come On In". In the foreground, a yellow semi-circular sign is attached to the building, featuring the text "SAVE THE CORPORATIONS FROM THEMSELVES" in dark blue, bold, sans-serif capital letters.

**SAVE THE
CORPORATIONS
FROM THEMSELVES**

Activist
Attic
Come On In



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

Credits and Thanks

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<https://secure.flickr.com/photos/mollyeknox/258320391/sizes/l/in/photostream/>
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- **Illustration and Design:** J.M.Todaro - <http://jmtodaro.com>