

Tor for Developers

What can **you** do with it?

You can *access* Tor





Tor Browser Bundle


About Tor

Tor Browser

Search or enter address

Search


Tor Browser 6.5



Welcome to Tor Browser

You are now free to browse the Internet anonymously.

[Test Tor Network Settings](#)



Search [securely with DuckDuckGo.](#)

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 »](#)
- [Tor Browser User Manual »](#)

You Can Help!

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

- [Run a Tor Relay Node »](#)
- [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 »](#)

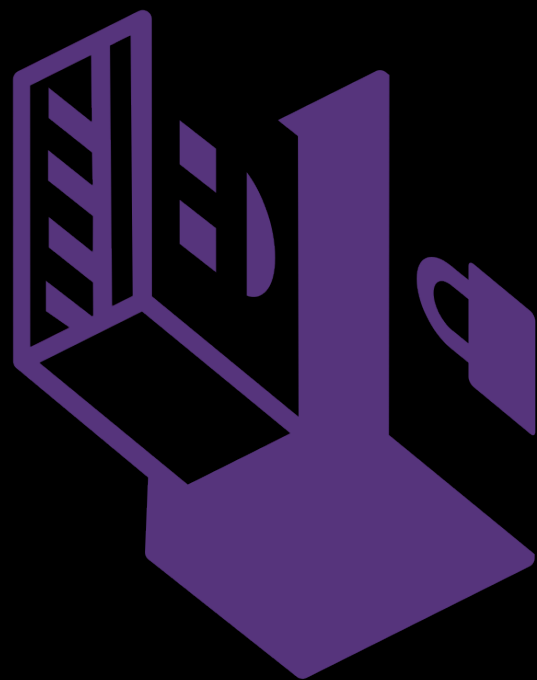
Tor Browser Bundle

- Modified version for Firefox ESR
- Everything is routed through Tor
- Lots of customizations / plugins to minimize tracking
 - No JavaScript
 - No Fonts
 - No LaTeX / Icons / SVGs
 - Limited Video / Audio

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No Google Search

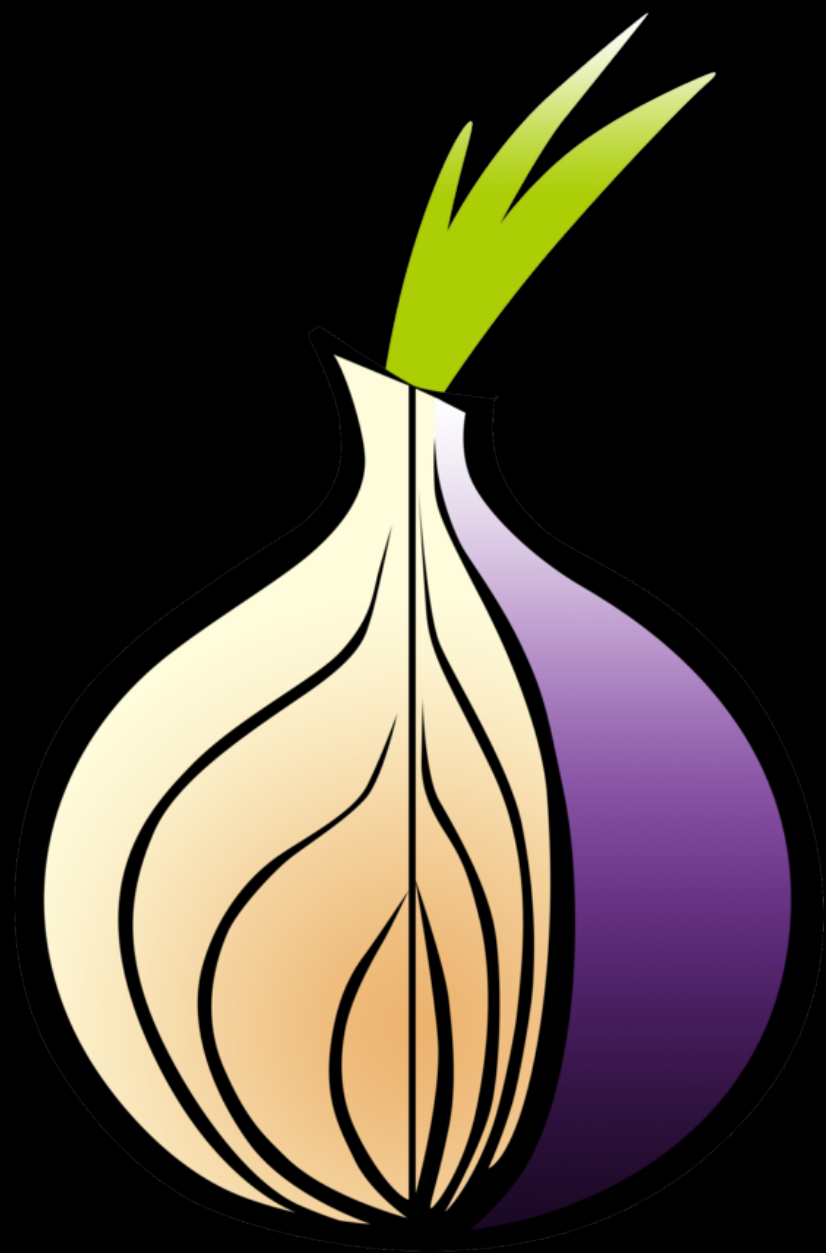


Tails

the **amnesic** incognito **live** system

Tails

- An entire operating system
- Routes all traffic over Tor
- Designed to keep everything in-memory
- Runs from a Live USB / Live DVD
- No persistency
- Doesn't leave a t-r-ail



Official Tor Client

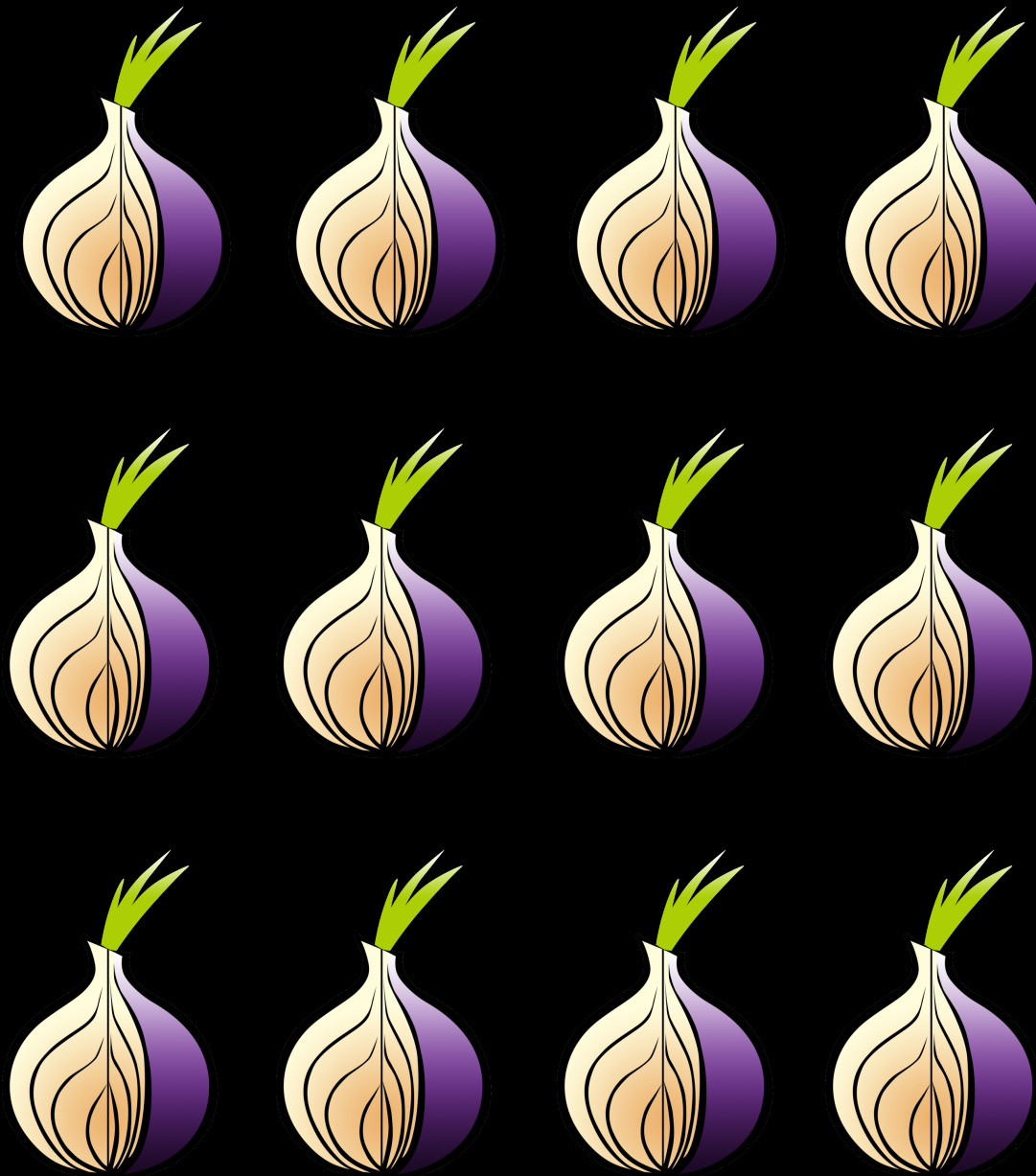
- Runs everywhere
- Runs as daemon
- Allows access via SOCKS5 proxy
- Allows for full Tor functionality use
 - Can be used to host Hidden Services
 - Can be used to run a Bridge / Guard / Relay / Exit

Hidden Services

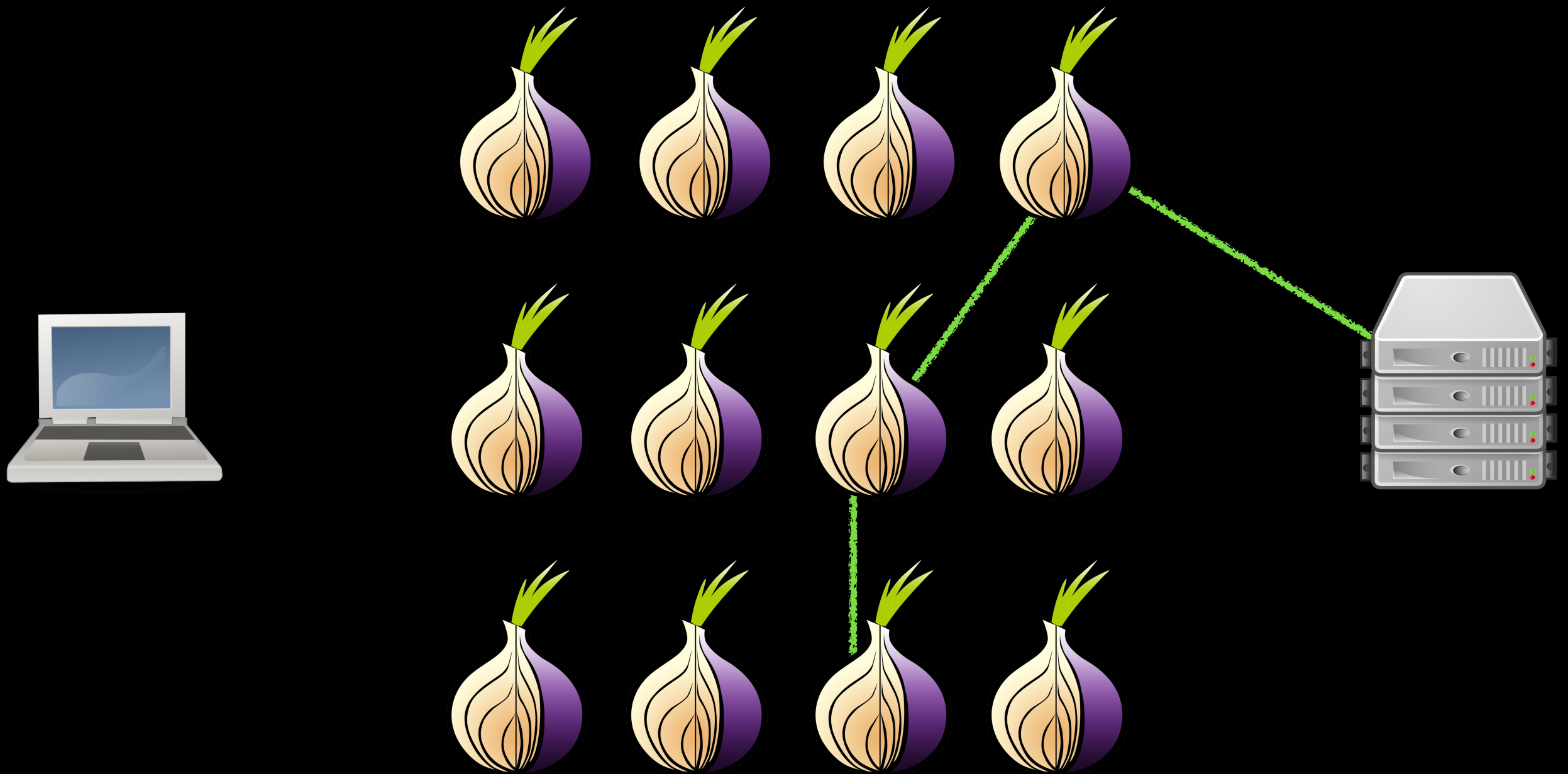
What are they?

- Full services (HTTP, SMTP, SSH, ...)
- Accessible only inside Tor
- Domain based on Public Key (.onion)
- Visitor and Service identities remain unknown

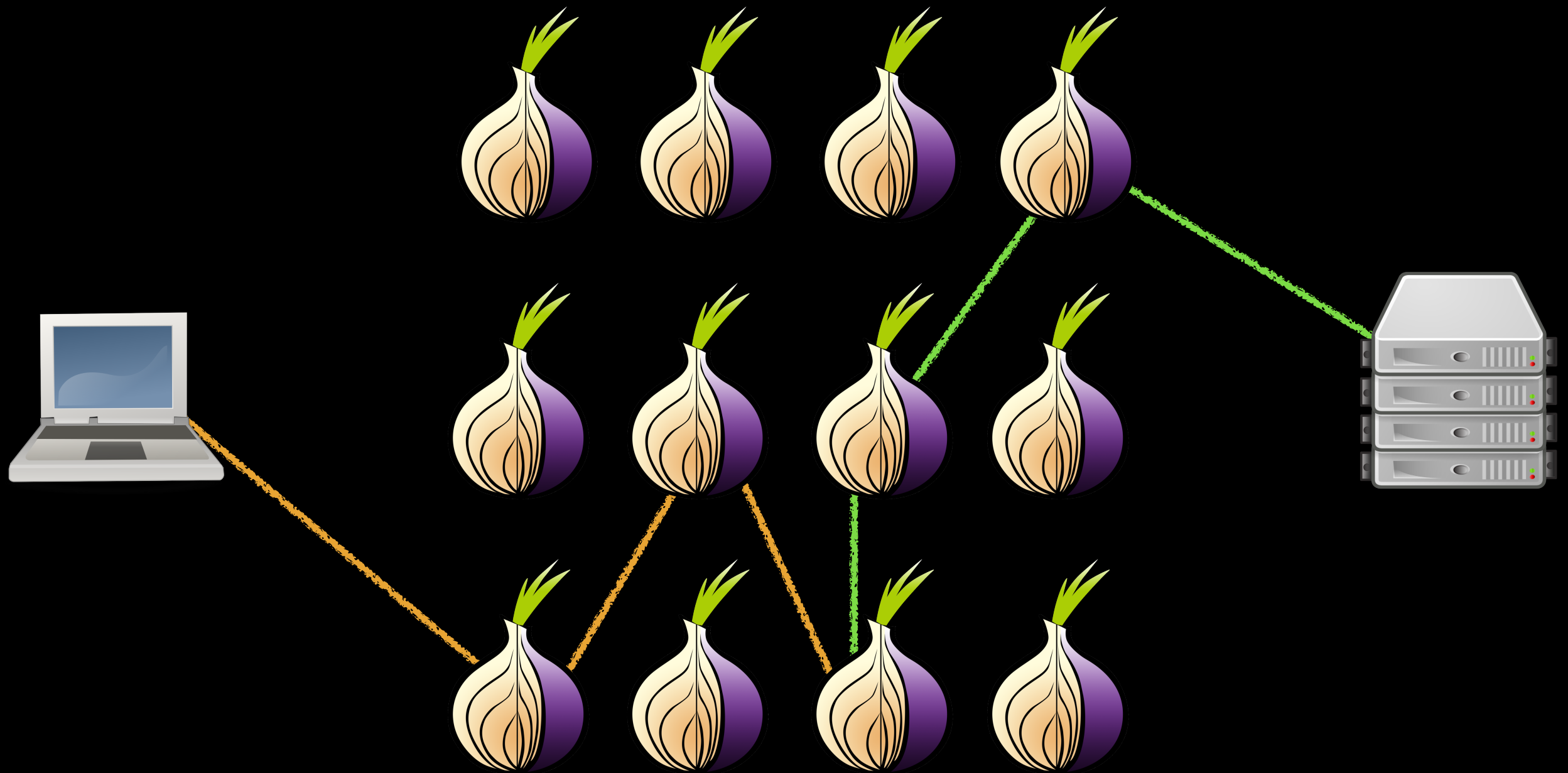
How do they work?



How do they work?



How do they work?



How do you run one?

```
$ sudo apt-get install tor
```

How do you run one?

```
$ vim /etc/tor/torrc
```

How do you run one?

```
# [...]
```

```
HiddenServiceDir /path/to/folder
```

```
HiddenServicePort 80 127.0.0.1:80
```

```
# [...]
```

How do you run one?

```
$ sudo service tor reload
```

How do you run one?

```
$ cat /path/to/folder/hostname  
daknobxyumrq2l5f.onion
```

How do you run one?

```
# [...]
```

```
HiddenServiceDir /path/to/folder
```

```
HiddenServicePort 53 8.8.8.8:53
```

```
# [...]
```

How do you run one?

```
# [...]
```

```
HiddenServiceDir /path/to/folder
```

```
HiddenServicePort 80 192.168.1.1:80
```

```
# [...]
```


How do you run one?

```
# [...]
```

```
HiddenServiceDir /path/to/folder
```

```
HiddenServicePort 22 127.0.0.1:22
```

```
HiddenServicePort 80 127.0.0.1:80
```

```
# [...]
```

How do you run one?

```
# [...]
```

```
HiddenServiceDir /path/to/folder
```

```
HiddenServicePort 53 8.8.8.8:53
```

```
HiddenServiceDir /path/to/folder2
```

```
HiddenServicePort 53 8.8.4.4:53
```

```
# [...]
```

HTTPS?

- You can't get a "normal" HTTPS certificate
- Only EV ones available
 - Yes, the super expensive and slow to issue ones
- But you don't really need them
 - All traffic encrypted w/ HS' Public Key

What can I do with them?

- Make your home PC's ssh available w/o port forward
- Make your website also available as a Hidden Service
- Create a Tor-only service / website
- Let your imagination go wild

What is out there?

- My blog: daknobxyumrq2l5f.onion
- Facebook: facebookcorewwi.onion
- DuckDuckGo: 3g2upl4pq6kufc4m.onion
- Lots of bad stuff

Thank you!

QnA