



# 14-741 / 18-631 HW 7 Recitation

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NOVEMBER 19, 2021

Anish Singhani, Xinyue Han

# Agenda

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1. Tor Review
2. Homework 4 Overview
3. Install and Configure TOR, Stem Library
4. Stem Library Example
5. Tips

# Tor Review

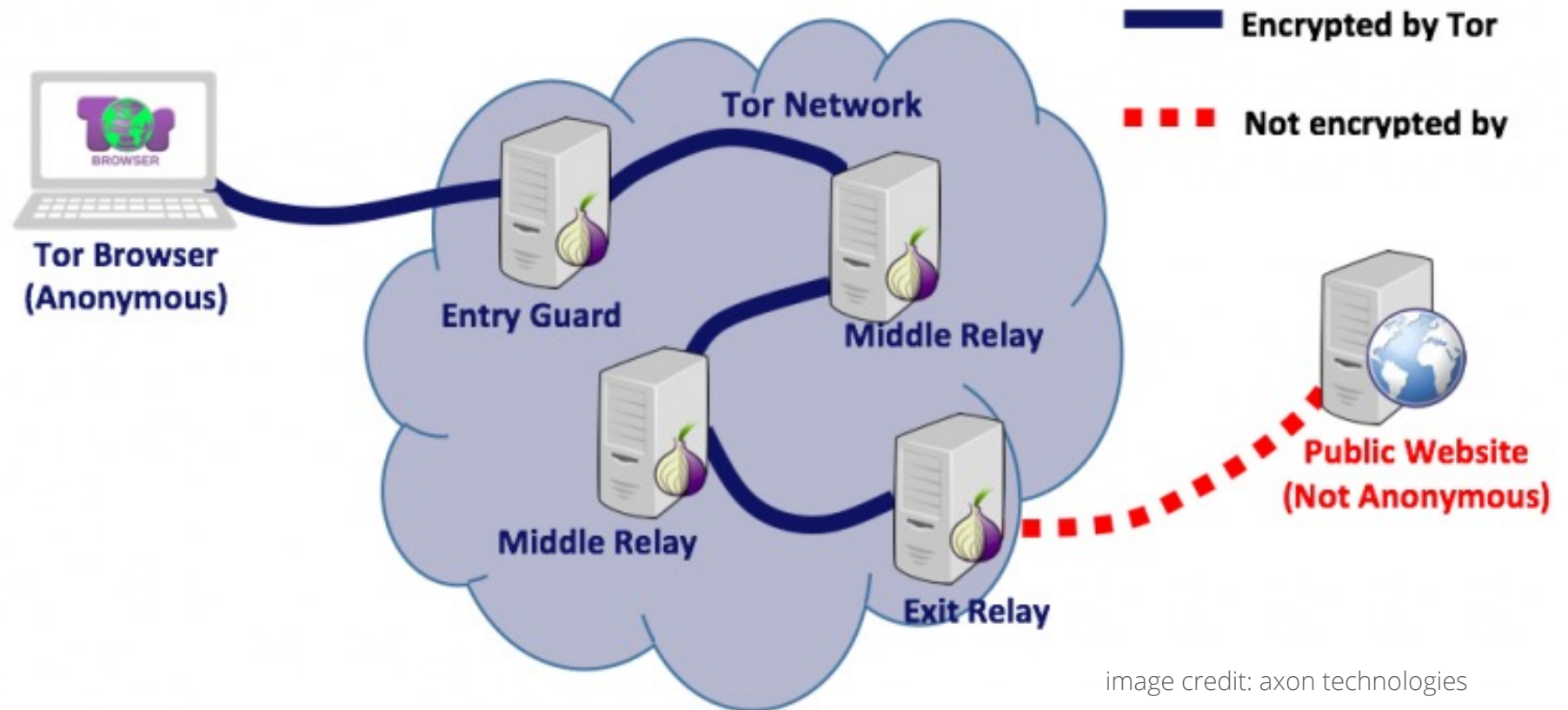


image credit: axon technologies



# Onion URLs (not used in HW7)

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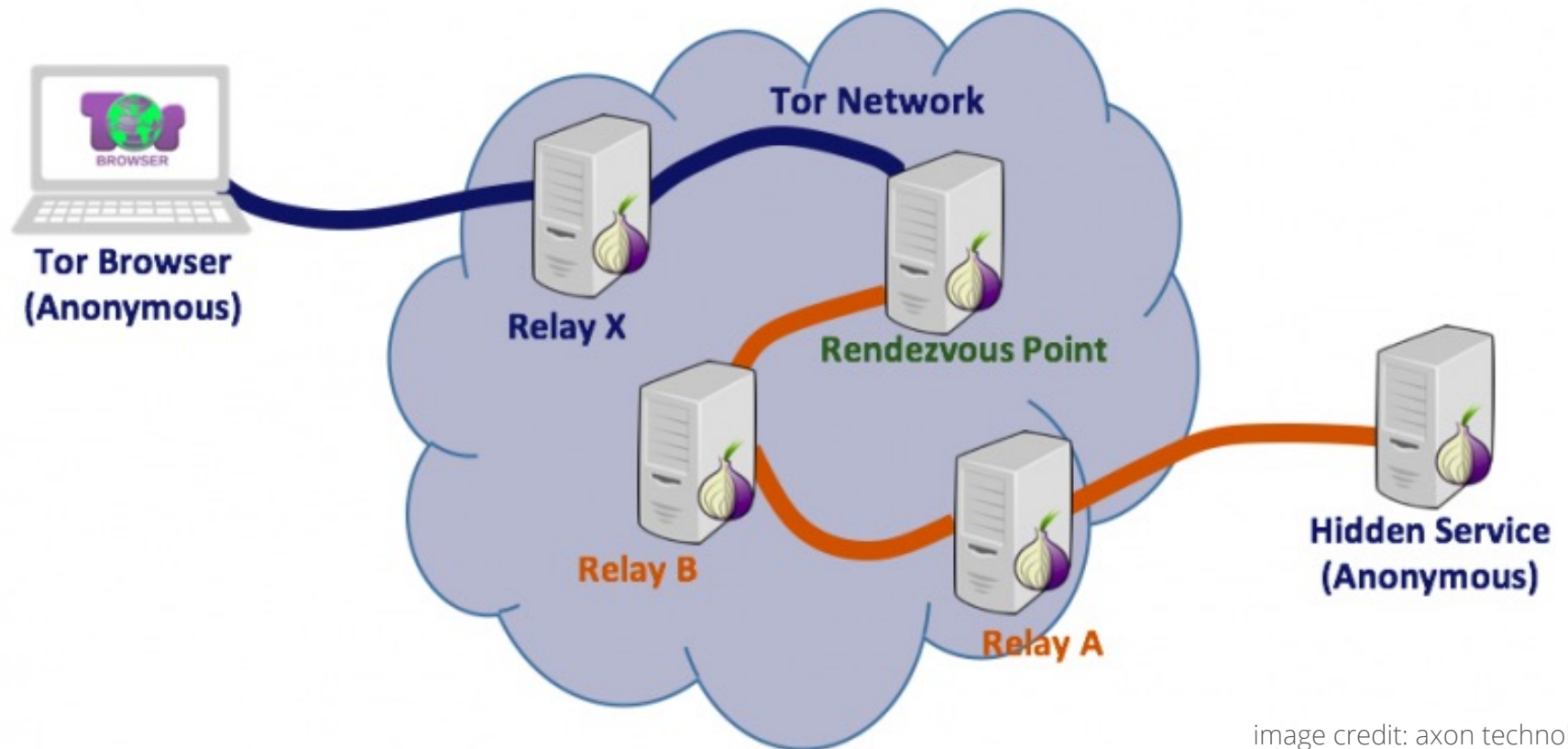


image credit: axon technologies

# Homework 4 Overview

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- Preliminaries
  - \* Find out your IP
  - \* Check Tor circuits
- Using exits to circumvent censorship
  - \* Connect to website & get flag
  - \* Find 5 Countries
- Submission on Gradescope

<http://ini741website.anishs.net:14741/flag?id=xinyueha>

***Include your ANDREW ID  
In HTTP requests***

## Install and Configure TOR, Stem Library

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- On centos:

# install

```
sudo yum install epel-release
```

```
sudo yum install tor
```

```
sudo pip3 install stem
```

- On ubuntu:

# install

```
sudo apt-get update
```

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

```
sudo pip3 install stem
```



## Install and Configure TOR, Stem Library

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# Configure TOR

open file /etc/tor/torrc

enable controlport

enable cookieauthentication

# Start Tor

sudo systemctl restart tor

# Stop Tor

sudo service tor stop

sudo killall tor

# Stem Library Example

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- Stem Library:

A Python controller library for **Tor**. With it you can use Tor's **control protocol** to script against the Tor process.

- Stem doc:

<https://stem.torproject.org/index.html>

- Stem Example:

[https://stem.torproject.org/tutorials/the\\_little\\_relay\\_that\\_could.html](https://stem.torproject.org/tutorials/the_little_relay_that_could.html)



# Stem Library Example

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- Stem Example:

[https://stem.torproject.org/tutorials/to\\_russia\\_with\\_love.html](https://stem.torproject.org/tutorials/to_russia_with_love.html)

```
tor_process = stem.process.launch_tor_with_config(  
    config = {  
        'SocksPort': str(SOCKS_PORT),  
        'ExitNodes': '[ru]',  
    },  
    init_msg_handler = print_bootstrap_lines,  
)
```

# Thanksgiving OH Logistics

 note @970    ▼

## Rescheduled Office Hours 11/24

Hi all,

Anish and Sean will be holding office hours on Tuesday 11/23 instead of Wednesday 11/24 due to Thanksgiving break. OH will take place from 2-4 PM via Zoom only:

<https://cmu.zoom.us/j/94108388704?pwd=OXY3MGdJZXNHUkQyWW12SDBIUUZadz09>

McKenna and Xinyue will hold office hours on Monday 11/29 at 11AM-1PM instead of Wednesday 11/24 using their regular Zoom link:

<https://cmu.zoom.us/j/92301884796?pwd=VW1qc2JFbEowREV1RW43dDZ5MnRRZz09>

## Prof. Jia Office Hours

Due to Thanksgiving holidays and the upcoming final exam, I will move my office hours from Thursdays to the following (all time EST):

Nov. 22 (Monday) 4-5pm. (cancel Nov. 25th)

Nov. 30th (Tuesday) 2-3pm (cancel Dec. 2nd)



# Tips

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- Remember to start tor and stop tor
- Make sure you include you Andrew id in the web request and writeup
- Start early, finish early, happy Thanksgiving!