

# COS 561 - Project Proposal

## Motivation:

Flag packets traced through blocked countries for purposes of security and integrity of transmitted data by providing an explicit feedback to the user.

## Problem Statement:

In this project, we wish to develop a browser extension that would - using a measuring technique such as traceroute - trace the route of the request and would detect if the packet was routed through a blacklisted country. The purpose for doing so would be to promote integrity of data as well as security during inter-network communication, targeted primarily for bad state agents such as those that might engage in state-sponsored DoS and/or IP Spoofing attacks.

## Milestones:

Milestone	Time Required	Expected Completion Date
1. UI to input user's preferences for black-listed countries.	10 Days	November 28, 2016
2. Invoke TraceRoute and save the results such that it can be parsed later on.	10 Days	December 8, 2016
3. Parse the TraceRoute results.	5 Days	December 13, 2016
4. Display an error message if the route involved going through a blacklisted country.	5 Days	December 16, 2016

## Final Project Aesthetics:

- User asked to input names of countries in entirety they want blocked.

- Backend process saves input countries in a data structure (hashset preferably for  $O(1)$  lookup).
- Backend traceroute script parses and cross-checks country name collected from the above list.
- Display error message.

## Future Work / Possible Extensions:

- Give user a warning if a request is expected to go through a blacklisted country.