# Plan a crime

It is not unheard of for companies to use private networks for their developers to work on. In fact, 2 out of 3 of my co-op placements used a network like this. While it may be rare, some of these private networks might not use encrypted messaging because of the implicit trust of the users that have access to this network. Every user within this network poses a security risk here.

Suppose I am an employee with access to this private network using a packet scanning tool like Wireshark, I could easily check the nature of the packets being transferred within the network to my computer. Now for the sake of example, the company accountant uses this network to send paycheck information to the company database which will be accessed to automatically send out employee paychecks by another system. A common strategy of attack we can use is a Man-in-the-middle attack where we intercept the packets in question and edit them with the information we desire. This kind of attack is fairly common to gain access to confidential information, and there are numerous strategies to execute such an attack, one example is to spoof SSL information to disguise your computer as a different entity on a network [1]. Creating a program to operate like a middle-man can be done outside of the work network to not arouse suspicion, and then it can be quickly executed during work hours without interrupting other traffic flow to keep the illusion of a normal network going. Now with the whole setup, we can silently modify our pay values or any other finances of the company we want, even without the proper authority.

# Analyze a law

Net neutrality policies in Canada are defined in the Telecommunications Act. Section 27(2) states that no Canadian ISP (internet service provider) can discriminate when it comes to the provision and use of their internet service. Section 36 is more in line with what is commonly known as net neutrality, and it states that no Canadian ISP cannot interfere with any traffic going through it for the public, except when the Canadian Radio-television and Telecommunication Commission (CRTC) approves otherwise [2]. There has not been significant development on Canadian net neutrality before this, as the idea of “net neutrality” has been enforced by the CRTC long before the term had been coined. The current framework has been based on regulatory standards enacted in 1993 with the Telecommunications Act.

The last edit to any policies related to net neutrality was with Policy 2017-104. This was to address how ISPs price their services and gave concrete criteria as to whether the pricing violates the previously mentioned policies. The four criteria are: whether the offering treats all data equally; whether the price offering is only available to a category of end-users; how the price offering has an impact on Internet openness and innovation; and whether there is financial compensation between a content provider and the ISP or third party (essentially bribery) [2].

Arguments for net neutrality sprung up as the FCC in the United States planned on reverting net neutrality laws, and the Government of Canada publicly expressed that Canada will be for net neutrality going forward. The arguments for net neutrality are generally about preventing ISPs from manipulating their web traffic to gain an advantage against competitors in the market, and that the internet should remain an open communication system as more and more users are becoming dependent on the platform [3]. Net neutrality guarantees freedom of speech on the internet, as ISPs are prohibited from blocking any content they may not agree with. This also provides an even playing field for small ISPs to compete with the large ones.

The arguments against have typically been of discouraging innovation and investment while being harmful to small businesses, this argument in particular is fairly weak, as there is a fair amount of evidence that this does not prevent small ISPs from rolling out services and small companies additionally receive government financial aid if they do not have above a certain subscriber amount. For the point against innovation, opponents of net neutrality suggest that helpful innovations will occur if we remove net neutrality and any obnoxious behaviour can be handled on a case-by-case basis. Other arguments are to prevent state intervention in the management of the internet or say that the practices of changing internet traffic will instead be good for consumers since they will be able to speed up services the user cares about and slow down services the user does not use. The arguments cite that giving the government responsibility to manage things has been historically problematic and will only create problems instead of solve them.

# References

1. E. Moyer, “NSA disguised itself as Google to spy, say reports,” CNET, https://www.cnet.com/tech/tech-industry/nsa-disguised-itself-as-google-to-spy-say-reports/ (accessed Jul. 19, 2023).
2. Loprespub, “Net neutrality in Canada,” HillNotes, https://hillnotes.ca/2018/09/20/net-neutrality-in-canada/ (accessed Jul. 19, 2023).
3. CRTC, “Strengthening net neutrality in Canada,” Government of Canada, https://crtc.gc.ca/eng/internet/diff.htm (accessed Jul. 20, 2023).
4. J. Steimle, “Am I the only Techie Against Net Neutrality?,” Forbes, https://www.forbes.com/sites/joshsteimle/2014/05/14/am-i-the-only-techie-against-net-neutrality/?sh=38b309eb70d5 (accessed Jul. 20, 2023).