One potential ethical dilemma that I could experience as cyber security professional occurs when a government agency, such as the FBI, is asking for access to users' encrypted information from the company that I work for. This situation brings up the issue of whether I should protect the privacy and information of the consumers using our product / service or should I assist my government who may need the data for counter terrorism. These dilemmas have been seen in the past by numerous businesses rejecting to assist the government. For example, in 2016 after the terrorist attacks in San Bernardino, the FBI asked Apple to create a way to disable the system wipe after 10 password errors that appears on their iPhones. In response, Apple refused create such a system as it would weaken the security on all iPhones. [1] To some, that idea of protecting the privacy of the users seems obvious. However, I don't think the solution that Apple came to was as simple as it appears to some people.

A situation similar to the one Apple was put through in 2016 could occur at any time for an abundance of reasons. One day, I could have to add my input into making a decision like Apple had to do, if I were a CISO, or equivalent, of a corporation. This is a rather important decision that one would have to make. Many people, particularly consumers, see one possible solution to this issue. They then don't want anyone to have the ability gain access to there data or device, and would then tell the government that they aren't going to invade the privacy of their users. However, this becomes an iffy situation when terrorist groups and other criminals use the same systems as US citizens for malicious purposes. Should the company protect their consumer base and prevent the government from getting vital information that could help apprehend federal criminals or put them to trial? Should they help the government, but, in order to do so, the company must develop insecure systems or gather private information on their customers? One could argue for either way being the correct solution ethically.

In our lecture over ethics, we talked and learned about Kantianism and act utilitarianism as ethical theories to shape people's behavior. According to the "The Gift of Fire", in Kantianism, there is a key idea to never treat others as means to an end, but rather the people are the ends themselves. This idea comes in conflict when giving up the privacy of your customers in order to protect them from terror attacks. Is giving up their privacy using people as a means to counter terrorism or is people's safety the ends in the situation by trying to counter terrorism? Unlike Kantianism, act utilitarianism says that the ethical solution is the one that causes the most good to occur. However, this creates an issue of how to decide what is the net positive where we are measuring the effects of terrorist attack and the potential of people losing their lives vs the loss of privacy and security for consumers and their devices. As well, one's way to measure the importance of either side is subjective with high variance for a decision like this. Both Kantianism and act utilitarianism show that there is an ethical dilemma with both sides able to be viewed as both the right and wrong decision to make. This kind of situation has obvious answer for everyone and is subject to must be left to the discretion of the decision maker.

This dilemma has numerous solutions, even from just myself. There are many different issues that would have to be answered. Is my company developing an insecure system or gather information on some user/s? Is the government asking for counter terrorism reasons or other serious threats? How many people would be affected by the final decision? All of these questions, may cause differing answers. So for the sake of argument, lets assume that I am a CISO of a large company with the final say on whether to help the government or not with trying to catch / gather information on suspected terrorist/s. In a situation like this, being similar to Apple's dilemma of 2016, I would ultimately decide to help the government unless we were being asked to develop insecure systems or products. This is because I value the prevention of terrorists acts over giving up data on users as a net positive. However, the act of creating a less secure system could have unforseen effects that could lead to numerous vulnerabilities, which could affect the company's many customers.

My reasoning for making this decision comes primarily from my own views about the dilemma from within act utilitarianism and Kantianism that I explained before. In regards of act utilitarianism, I value the safety and security of one's life over their privacy. This means that when it comes to giving up some privacy of

my company's customers to the government for their own and others' safety, I see the ethical option to help protect the live of many. However, if the situation asks for my company to purposefully reduce our own security or the security of our products, I would see the ethical solution as refusing to lessen security, even if were able help save the lives of some people. I value the unforseen consequences from creating insecurity as more dangerous to the company's large number of users as a greater negative than the potential terrorist attack. If my company did lessen security, then we could be personally responsible for allowing the theft of people's information by doing so. On top of this, in relation to Kantianism, I don't see any decision to help the government as using people's information as a means to counter terrorism. Rather, I see the action as a way to help protect people making their lives essentially the ends.

This is how I would evaluate such a pressing decision to help the government with counter terrorism actions or protect the privacy and security of my company's customers. In 2016, Apple made a decision like this to not create a system to prevent the deletion of an iPhone's data after 10 failed password attempt. This was after a terrorist in San Bernardino, and the FBI needed to unlock one of the terrorists iPhone. [1] They weighed that the decrease in the their iPhones' security measurements would not be right thing to do. I agree with their decision and as doing such a thing may allow others to be able to do utilize that power as well.

## Works used:

[1] https://www.washingtonpost.com/world/national-security/us-wants-apple-to-help-unlock-iphone-used-by-san-bernardino-shooter/2016/02/16/69b903ee-d4d9-11e5-9823-02b905009f99\_story.html

In-class lecture

A Gift of Fire by Sara Baase and Timothy M. Henry