An Ethics Assignment for Cybersecurity courses
A Look at Privacy and Security Issues in Online Meetings

Note to instructor: This assignment was developed for an online class (due to Covid-19 restrictions). For in-person classes, ideally step 1 and parts of step 2 would be done as an in-class activity, breaking up students into small groups and asking them to discuss their answers to questions 1 and 2.

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Section 1: Making ethical decisions when designing and implementing products, especially when making decisions in regard to security and privacy

Step 1 - Learning about ethical decision making:

Please read the "Framework for Ethical Decision Making" by Markkula Center for Applied Ethics. The framework describes five approaches which will help you identify and analyze the ethical issues that arise in a particular set of circumstances, before making an ethical decision. You might want to print out the pdf at the bottom of the page, to consult in the subsequent portions of this exercise.

Step 2 – Apply the framework to a real case:

Read the article "Warning: Zoom Makes Encryption Keys in China (Sometimes)," by Thomas Brewster, which appeared in *Forbes* magazine on April 3, 2020.
Two more **optional** readings will be useful: "Move Fast and Roll Your Own Crypto" (a report by Bill Marczak and John Scott-Railton of CitizenLab at the University of Toronto), as well as a response to that report by the CEO of Zoom—both of which were also published on April 3, 2020.

After reading the article, please answer the following questions. Remember: there are no single right or wrong answers here. The goal is for you to practice how to evaluate a situation thoroughly and how to make an ethical decision in a cybersecurity context.

1. Who are the people or groups impacted by the product, or by the decisions that the product/company (Zoom) made about its security and privacy? Identify at least 5.

2. Identify some ethical issues by looking through each of the five lenses introduced in the framework. For each, 1-2 sentences are enough. For example, when analyzing the case through the Rights approach, whose rights are implicated and what are those rights? When analyzing through the Justice

approach, see if you find an example of injustice in the case. What are some virtues implicated in the decisions made in this case? etc.

Step 3 – If you were a decision maker

3. If you were a part of the security team of Zoom, would you have made a different decision about any of their practices to address some of the ethical issues you mentioned? Briefly explain.

Section 2: Technical understanding of how Zoom protects communications

Read the report by CitizenLab (CizienLab research) in regard to Zoom's security practices. This will give you some understanding of how Zoom encrypted the communications on its platform at the time.

4. Name at least one of Zoom's practices in regard to security that surprised you. In other words, were any of the problems mentioned by CitizenLab something that you could also have identified based on the knowledge you have obtained from the courses you have taken so far?