Asset Inventory Risk Write Up by Masyn Grisel

Introduction: The subject of this inventory is me, Masyn Grisel. I am a 23 year old college student who lives in Fort Worth, Texas. Some of my daily habits include going to the gym, reading, playing disc golf, and watching movies. I do all of my homework on my computer, so that is by far my most valuable asset. I live with my mother and we have one dog. In general, I would say the only risky habit I have is giving out my email too much. When a website I am interested in asks for my email, I usually give it out. I do not respond to any phishing as I am well aware of the risks involved with that. The procedures I used for the risk assessment will be copied from my last assessment in the next section.

Overview: Here is a breakdown of the procedures I used for each section of my risk assessment:

People: Using the organizational assets used in systems table provided in the PowerPoint titled “Jennex\_Vulnerability\_and\_Risk\_r4”, I started building my inventory with people. To identify all the people to be listed in this category, I used three strategies:

* The first strategy involved going through my contacts and creating a list of anyone who I have contact with or who I would consider to be a close friend in my life. This strategy was important because I did not want to include anyone I knew as an asset, only the people who I trusted or had access to information about me.
* The second strategy was to include all family members that I saw during holidays such as Christmas or Thanksgiving. These people are important because they come to my house and I have known them for all of my life.
* The third strategy was to create a diary for three days of my life, and to note anyone I came into contact with regularly that might have any personal information on me.

After listing all the individuals for the people portion of this inventory, I determined how they would be grouped. These were the groups that made the most sense:

Procedures: To do this, I kept a diary for three days and noted all the routines I had. This was sort of difficult because I did not know what would be considered relevant for this particular assignment.

Data : First, I surveyed all my known repositories of data and listed them. Then, I went through my phone and listed all apps that had my personal data on them. Finally, I went through my house and checked all the rooms to see what data I had stored around the house.

Software: This section was extensive because I listed all the apps that I used according to my diary. Next, I created a group of apps that are installed but not used. Finally, I added the two main operating systems I use. I do not have any security devices in my household.

Hardware: To evaluate this section, I listed every IoT device I had and included any device in my house that could connect to the Internet. Once again, I do not have any security devices in my household.

Network: This is just one asset because all I have is a router and nothing else. Here is the group:

* Router

Threats/Vulnerabilities: For this report, threats/vulnerabilities were identified based on researching specific ways each asset could be exploited and then determining which of these applied to my assets specifically.

Prioritization: I prioritized my assets based on how dependent I am for what I do now and what I will do in the future. This mostly centers around school right now, which is all online, because I do not have a job. It would not make sense for me to prioritize something above any asset I use directly for school.

System: The system I chose to use was Blackboard for school. Like stated above, school is my main priority right now, so that is the main system I use to access all my classes.

People Asset: confidentiality, low integrity, moderate availability, high

The asset I chose for this section is me. I chose to put my availability as the highest threat categorization because I am the only one who can do my schoolwork. I have assigned a disclosure value of $8,000 for my bank account plus the cost of tuition. I do not own any assets and I do not earn any income at the moment. The priority for this is vital because it is me. The main vulnerability for my availability would be getting very sick. I do not drink or do drugs or break the law, so I did not include the option of going to jail. The ARO for this is .05 because I would consider myself pretty healthy. The controls in place that prove this are that I work out daily(weights and cardio), I am completely sober, I take vitamins, and I eat a clean diet, and the control effectiveness is a .8 because I am not sick often. The uncertainty for this is .2 only because things happen randomly where people get sick, so I can not say I will never be sick again. The risk value is $96(8000 x .05 x .2 x 1.2), and this is a risk I am willing to take.

Procedure Asset: confidentiality, low integrity, moderate availability, high

The asset I chose for this section is my school procedure. This just involves getting on the computer daily and doing school activities. For the threat categorization I chose availability as the highest threat with the main vulnerability being access to school. I need access in order to do assignments daily, so that is very important. The priority is vital because I do use this procedure daily. It could be critical because there are days when I do not have assignments due, but missing one day could put me very far behind. To calculate the asset value, I did a couple of things. First, I used an average of $20 per hour(average starting pay) times the amount of hours I use this procedure in one day(3 hours).Then, I looked at the effect it could have on my grades which would in turn lose me $1000 scholarship if it got to that point. Then I added $50 for additional efforts such as emailing teachers or working longer the next day. This brought the total asset value to $1110. The ARO for this is .1, so Medium, because I can not control if the system goes down. However, I can say that it has not happened a lot. The main control I have in place is doing homework days ahead of time with a control effectiveness of .7. There are no controls I need because the loss of the system is out of my control. The uncertainty is about .25 because the loss of this procedure has rarely happened, but I can not mitigate the risk completely. The total risk value is $41.63(1110 x .1 x .3 x 1.25), and that is a risk I can take.

Data Asset: confidentiality, moderate integrity, high availability, high

For this asset I chose my desktop computer with a high integrity threat. The main vulnerability for this asset is maintaining the integrity of my school assignments so my grades are not diminished. The priority is vital because I use my desktop everyday, and the loss of it would be almost catastrophic for my classes. To calculate the asset value, I added the value of the computer ($700) plus the value of the procedure listed above since this procedure is on the computer($1110). This brought the total to $1810. The main way my vulnerability could be exploited would be through getting hacked. As a result, the ARO is .05 because I have a firewall set up, none of my passwords have been leaked, and I do not respond to phishing. Those are also the controls I have in place and the control effectiveness I would say is .7 because I am well protected, but I still want to be cautious. The uncertainty is 0.5 because there are various ways to attack someone and compromise their integrity, and I am not fully aware of all these methods. The risk value is $40.73(1810 x .05 x .3 x 1.5). Some controls I could have in place would be to become more educated on how to protect myself and to create backups of important documents/files.

Software Asset: confidentiality, high integrity, high availability, moderate

For this asset I chose the Chase app I use for my banking information. The confidentiality for this is the highest because I have my bank account information on here, and it is extremely important that stays confidential. The biggest vulnerability for this app would be some sort of phishing attack. If someone gained access to my bank account through phishing then I could lose all of my money or they could make unwanted purchases. The asset value for this is the total money in my account plus the amount it would take to pay overdraft fees or replace if lost. This brings the total to $3500. The priority is vital because I do not want to lose my account for even one day. The ARO is .05 because I am very good at not giving out this type of information and not falling for phishing attacks. One control I have in place is not responding to any emails or phone calls I am unsure about, with a control effectiveness of 0.8 because I really do not give out information. The uncertainty is 0.2 because you never know what could happen, and I will not say there is no possibility of being attacked. The total risk value is $42(3500 x .05 x 0.2 x 1.2), and this risk is covered in my cash held at home. One control I could put in place is becoming more educated on alternative ways someone could hack my bank account.

Hardware Asset: confidentiality, high integrity, moderate availability, moderate

The asset I have chose for this section is my phone. The reason the confidentiality is high on this is because I store a lot of data, such as my bank account and private messages, on this phone. The biggest threat to the confidentiality is poor passwords. This is because the easiest way to hack into my phone would be to know the passcode. The total asset value for this is the money in my bank account plus the cost to replace a new phone. This brings the total to $3800. The priority is vital because access to my phone could be catastrophic instantly in the wrong hands. The ARO is .1, medium, because I have different passwords all over my phone(one for the lock screen, one for banking, one for Gmail, etc) but I know there are ways to crack them. The main controls I have in place are using different passwords and using elaborate passwords(letters, numbers, signs like %$#) with a control effectiveness of 0.8. The uncertainty is 0.2 because, once again, I know hackers have their methods. In terms of someone I know trying to get into my phone, I do not think that is a high likelihood because my passwords have nothing to do with me as a person. One control I could put into place would be changing passwords routinely. The total risk value is $91.20(3800 x .1 x .2 x 1.2), and this is a risk I have to endure.

System Asset: Confidentiality, low integrity, high availability, high

The system asset I chose is Blackboard, which is used for my schoolwork. The integrity is the highest categorization of threat because I need to be sure that the work I turn in is accurate and trustworthy. If I can not trust the system I use for school to be accurate, then my academics would be seriously effected. The priority for this is vital because a loss of integrity on Blackboard would jeopardize years of work I put in and would slow down my daily life by not allowing me to graduate. The asset value for this is calculated as the cost of another semester of school($5000) plus the money lost by not getting a job for 6 months($25000), so $30,000. The biggest vulnerability for this system is the system crashing and not working. The ARO is 0.05 because it rarely happens. Some controls I have in place to protect against this happening is downloading all of my assignments and keeping copies of everything I complete, with a control effectiveness of 0.9. That way, if it does go down, I do not have to re do my assignments and can show that I did them right. The uncertainty is 0.1 because, like I said, this rarely ever happens. The total risk value is $165(30,000 x 0.05 x 0.1 x 1.1), and this a risk I can not spend any money to protect against.

Conclusion: Overall, my risk posture is not extreme in terms of potential financial losses. I do not have a job nor do I own any assets right now, so I can not lose an incredible amount of money. However, in terms of my life in school and future hopes of a career, I am very reliant on all of my technology working and not being compromised. For example, if I lost access to my computer today, I would positively lose grades in my classes. This would potentially lead to me having to retake classes, which would cost money and prevent me from getting a job sooner. With this in mind, I do believe that I take all the necessary measures to protect against that happening. Finally, in terms of the systems I use, specifically Blackboard, that is out of my control if it works or not. If it were to fail, I do believe teachers would be honest and fair when determining how to fix the situation.