

CPE 321 Lab 1 - Security Evaluation
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4/12/17

The computer system evaluated in this report is my personal laptop computer, an Acer Aspire, 64 bit with an Intel i3 processor. The computer spends most of its time at my house but I take it to campus regularly. I only use it for school work and web browsing.

Threat	Computer is stolen
Goals Violated	Confidentiality: Personal data could be compromised Availability: I no longer have access to my data
Vulnerability	<ul style="list-style-type: none">- Laptops are easily carried- No way of getting promptly notified of stolen laptop
Controls	General: Guard laptop with hired mercenary at all times. Confidentiality: Have a good password. Not "123456." Encipher critical personal data (e.g. SSN). Availability: Back up computer on a weekly basis.

Threat	Internet traffic is sniffed
Goals Violated	Confidentiality: Personal data could be compromised Integrity: The attacker could masquerade as a known entity so the information provided could be harmful. Availability: A spoofing attack could prevent information normally available via internet to be unavailable.
Vulnerability	<ul style="list-style-type: none">- Wi-fi encryption (SHA-2) is breakable- Currently have no way to detect a traffic sniffer
Controls	Confidentiality: Have a good password on personal wi-fi Integrity / Availability: Check for spoofing via a simple check of the source of information.

Threat	Laptop is physically damaged
Goals Violated	Availability: I no longer have access to my data
Vulnerability	<ul style="list-style-type: none"> - Laptops are portable and therefore easily dropped - Laptops tend to be vulnerable to spilled liquids
Controls	Availability: Back up computer on a weekly basis.

Threat	Hard drive is switched out
Goals Violated	Confidentiality: Hard drive thief has access to my data Integrity: New hard drive may mimic my old one with modifications Availability: I no longer have access to my data
Vulnerability	<ul style="list-style-type: none"> - Laptop hard drive is easily removed and replaced - The replacement may go undetected
Controls	Confidentiality: Encipher hard drive Integrity: Have program to check if hard drive is unchanged Availability: Back up computer on a weekly basis

Threat	Laptop is infected with trojan/virus/malware
Goals Violated	Confidentiality: Malware may steal my data Integrity: Malware may change my data without me knowing Availability: Malware may block access to my data
Vulnerability	<ul style="list-style-type: none"> - Certain websites may expose my computer to malware - Other people using my laptop may inject malware
Controls	<ul style="list-style-type: none"> - Install a trusted antivirus program - Only visit trusted websites - Only install trusted programs

In conclusion, my personal laptop seems to be at a **medium** security risk. I've taken some basic precautions to prevent obvious attacks but there are still many things that it is at risk to, including clever malware, physical theft, and virtual theft.