Attacks: how mean computers hurt nice computers

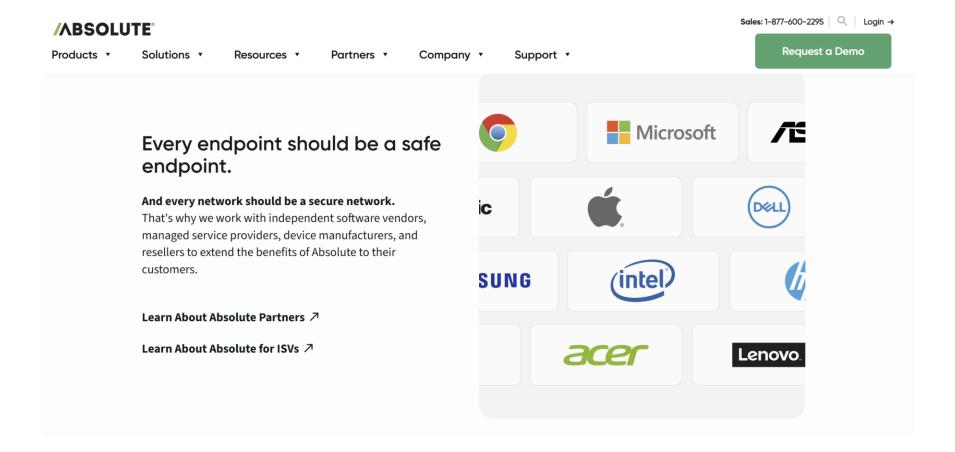
How:

- Phishing
 - Have you been targeted? Has an attack been successful?
- [Distributed] Denial of Service
- Ransomware attacks

• Why:

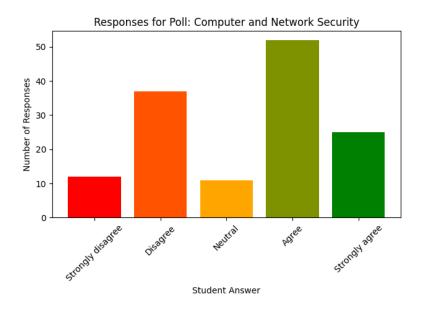
- Random acts of vandalism
- State actors
- Cybercrime: professionalization of malware
 - renting botnets (DDoS; spam)
 - stealing credit card numbers, passwords

Bios-Based Spyware



Computer and Network Security

"Canadians should be able to vote online in federal, provincial and municipal elections."



Online Voting

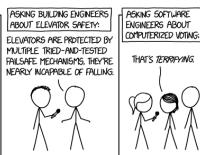
Motivation:

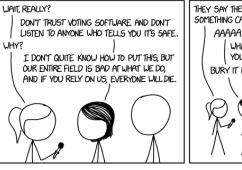
- More people would vote
- Votes would be counted more quickly
- Cost less money
- Avoid disputed elections like Florida 2000
- Eliminate ballot box tampering
- Software can prevent accidental over-, under-voting

Risks:

- Gives unfair advantage to those with computers
- More difficult to preserve voter privacy
- More opportunities for vote selling
- Obvious target for a DDoS attack
- Security of election depends on security of home computers
- Susceptible to phony vote servers, manipulation by foreign governments
- No paper copies of ballots for auditing or recounts
- Reduction in perceived legitimacy of elections even if everything works









Electronic Money

Financial transactions are increasingly moving online

Advantages

- easier transactions
- easier access to credit
- discourages black market economy
- prevents businesses from having to carry cash floats

Disadvantages

- empowers a few corporations
- less anonymity
- security risks
- Other advantages/disadvantages? What do you think?