Notes

- Homework due tonight
- Recitations (Today) - Roberts 208
  - This Week: Project
  - Next Week: Midterm Review

- Midterm: Next, next Thursday (22 OCT 2015)
  - I will provide list of topics I consider “Fair Game”
  - You are allowed one standard sized printer paper (8.5” x 11”), you can put whatever you want on it, however you want
Security, the Basics

• Change your password and underwear often - and for the same reason. DO NOT reuse the same password for various sites
• Be informed on recent security threats and keep software up-to-date
• Be aware of secure connections (HTTPS vs HTTP)
  • HTTP: Hypertext Transfer Protocol
  • HTTPS: Hypertext Transfer Protocol Secure
  • SSL: Secure Sockets Layer (Secure Certificate)
Security, the Basics

• NEVER share personal information such as password, bank accounts, etc.
  • Probably ever in general – but never over email

• Don’t share your password, just.. just don’t do it
  • http://abcnews.go.com/Technology/JobClub/story?id=7879939
Discussion

• Is it appropriate - on some level - to require passwords, as a means to detect morals of important roles, such as law enforcement?
Security, the Basics

• Use one (and only one) good anti-virus program

• Be careful about what information you make public on social media
  • For example: Your birthdate and birth town can make it possible to guess your SSN

• Be careful of what you click on
It’s a scary world out there:
Some things you can do

Outsource your passwords to a robot
It’s a scary world out there:
Some things you can do

Outsource your passwords to a robot

• DEMO
• https://myspace.com/signup/email
It’s a scary world out there: Some things you can do

Use two-factor authentication wherever possible

• Debit Card and Pin (old school)
• Random number sent by text message
• Special App
  • e.g. Google Authenticator
• U2F key (Universal Second Factor)
  • Physical “key” that uses technology similar to smart cards technology
It’s a Scary world out there:
Some things you can do

Encrypt!

• Encrypt individual files
• Enable Disk Encryption
  • Difference between losing your device and losing your identity
  • Con, if you damage your entire drive it is difficult to recover

It’s a Scary world out there: Some things you can do

Cover your webcam / Password protect webcams
  • Remote Access Tool, or RAT
  • Covertly using webcams (even without turning on the ‘camera is in use’ light):
    • NSA, FBI, and other Governments
    • Equipment Rentals
    • Previously owned laptops
    • Perverts
It’s a Scary world out there:
Some things you can do

Cover your webcam

Some Specific Attacks

• Miss USA and other young women
  • Jared James Abrahams blackmailed Miss USA and other victims in order to not share nude pics
  • Andrew Meldrum to fixed women’s computers, and then also put RAT software
It’s a Scary world out there: Some things you can do

Cover your webcam /Password protect webcams

Some Specific Attacks

• **2012 Trendnet**: Security camera company that allow users to view their home via the internet.
• “SomeLuser” posted info related to a flaw in the camera, resulting in URLs to live streams of user’s homes
It’s a Scary world out there: Some things you can do

Cover your webcam

Some Specific Attacks

- **Britain’s Surveillance Agency, GCHQ**
  - Collected Yahoo webchats under “Optic Nerve”
- **NSA**
  - “GUMFISH” tool for taking over cameras on machines
  - “CAPTIVATEDAUDIENCE” tool for recording conversations on targeted microphones
It’s a Scary world out there:
Some things you can do

Cover your webcam

Some Specific Attacks

• **Philadelphia Schools pay out $610,000**
• 2,300 school issued macs, complete with RAT
• Took thousands of images of students at home, in bed, and even partially dressed
• Accused student of popping pills, when actually taking candy
It’s a Scary world out there: Some things you can do

Cover your webcam

Some Specific Attacks

• Baby Monitors – a lot of creepy, creepy instances
• New York couple didn’t understand why 3-year old son afraid of voice in monitor, until they heard “Wake up little boy, Daddy’s looking for you. Look, somebody’s coming”
It’s a Scary world out there: Some things you can do

Cover your webcam

Some Specific Attacks

• Baby Monitors – a lot of creepy, creepy instances
• Washington couple 3-year old son reported (for months) the voice from the telephone telling him to stay in bed. Mother investigated during nap time, heard "Oh, watch this one, she's coming in again” while the camera followed her around the room
It’s a Scary world out there:
Some things you can do

Cover your webcam

Some Specific Attacks

• Baby Monitors – a lot of creepy, creepy instances
• London Ontario Creepy music starts playing, and then “you are being watched” announced as parents enter the room
It’s a Scary world out there: Some things you can do

• Can cover camera’s with:
  • Stickers
  • Sticky notes
  • Commercially available products

• Plug dummy plug into microphone jack
Discussion

• What did I miss? How do you stay safe?
Questions?

• **Recitation: Roberts 208**