SESSION SUMMARY:
In this session participants will learn about different kinds of security attacks such as password cracking, phishing and hardware attacks. Using an interactive game, they will explore ways to counteract each of these attacks and get a sense of how adversaries operate.
Breaking & Entering (Hacking)

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Hacking

- What is hacking?
- What are examples of hacking?
- What information might people want to hack?
Types of Hacking

- Password Cracking
- Phishing
- Hardware Attacks
Password Cracking

• Is “dog” a good password?
• What about “8251992”?
• What do good passwords look like?
Phishing

• Emails that get YOU to give them your passwords or other info under false pretenses

Hello!
As part of our security measures, we regularly screen activity in the Facebook system. We recently contacted you after noticing an issue on your account.

Our system detected unusual Copyrights activity linked to your Facebook account. Please follow the link below to fill the Copyright Law form:

http://www.facebook.com/application_form

Note: If you don’t fill the application your account will be permanently blocked.

Regards,

Facebook Copyrights Department.
Hardware Attacks

• What kinds of bad programs could you install on someone’s computer if you had access to it?
ACTIVITY

- Attack-Defense game
- 4 people per group
- 1 attacker team (2 people) and 1 defender team (2 people)
- You have a BOARD, GOAL card deck, ATTACK card deck, and DEFENSE card deck
ACTIVITY

• Goal Cards
  • Attacker is attacking either BANK, PC or FACEBOOK

• Attack Cards
  • Boosters (increase BANK, PC, or FACEBOOK attack strength)
  • Attack launchers
  • Can’t attack without first getting attack strength!

• Defense Cards
  • Increase BANK, PC, or FACEBOOK defense strength (initially all have defense strength +1)
GAME PLAY

- Attacker picks goal card. DOES NOT show it to defender.

GOAL: MONEY
You try to get into your opponents BANK account to withdraw $1000.
GAME PLAY

- Each player draws 5 cards
- Attacker from attack deck
- Defender from defense deck
- DO NOT SHOW EACH OTHER CARDS

- Attacker starts
- Each turn, a player plays a card from her hand, then draws a card from her deck
Attacker Cards

- **Attack Boost:** Attacker plays face down in their area to strengthen an attack later
- **Attack Card:** Use in combination with boosters to launch attack
Defender Cards

- **Defense Boosters** – upgrade your defenses in a certain area
- To play them, put face-down over area you are defending
ATTACK SIDE

ALL CARDS ARE FACE DOWN

DEFENSE SIDE

BANK

Initial Defense +1

PC

Initial Defense +1

FACEBOOK

Initial Defense +1

GOAL: MONEY
You try to get into your opponents BANK account to withdraw $1000.
GAME PLAY

- Attacker decides to play an attack card. **TIME TO ATTACK!**
- Example: Uses this card an attack booster they played face down earlier to attack with strength -3
- Shows attack & booster to defender
GAME PLAY

- Defender has to respond to the attack of strength 3
- Has defense strength 1 (initial) + 2 (cards) = 3
- Shows defense cards to attacker
ATTACK SIDE
TOTAL = -3

DEFENSE SIDE
TOTAL = +3

BANK
Initial Defense +1

PC
Initial Defense +1

FACEBOOK
Initial Defense +1

ATTACK CARD!!!!
GAME PLAY

- The attacker wins because he can match the defense strength of 3 ($3 - 3 = 0$)
- Play another round!
GAME PLAY

- If attacker loses, defense cards remain in area (now face up), used attack boosters go away and game continues.
- Game ends when attacker meets goal (when they can break the defense by having $\geq$ defense strength)
- Play a few rounds!
- Switch roles!
Make up your own cards!

Ideas?
- close down faxebook account  FAXEBOOK +?
- sick of password, change password FACEBOOK +2
- make a new password each week FACEBOOK, BANK or PC +3
- break into password management software FACEBOOK, BANK -3
- be friends to get their information
- overhear their password in Starbucks
- wallet stolen