Course Outline and Questionnaire

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Who&When&Where:

- Instructor: EJ Jung
  - ejung@cs.usfca.edu with "686" in subject
  - Office hours: MW 2:30-4:30pm or by appointment at HR 541
- You:
  - join the course mailing list at https://cs.usfca.edu/mailman/listinfo/cs686ps
  - Classes: MW 4:45pm-6:20pm at HR 235
  - All the important stuff at http://www.cs.usfca.edu/~ejung/courses/686/

How

- Lecture
  - Pop quizzes (10%) in the beginning
  - Slides in pdf in the schedule tab in the course website
- 3 Assignments (10% each) due 11:59pm
  - Sep. 29, Oct. 27, Nov. 24
- 1 service Lab (10%) - sign the consent form!!!
  - milestones due on Sep. 8, Oct. 13, Nov. 10
  - presentation and report due 11:59pm on December 6
- 2 Labs (10% each) due 11:59pm
  - Sep. 15 WEP and, Nov. 3 XSS
- 2 Exams (15% each)
  - Midterm on Oct. 6, Final on Dec. 13

Service Lab

- Goals
  - effectively communicate with the community partner
  - learn necessary skills in and out of classroom
  - use security and privacy knowledge in real-world
- Commitment
  - 20 hours per person, 2 people per group
  - 3+ needs instructor's approval
- Evaluation
  - community partner's evaluation + mine

Pre-requisites

- Required: high school math and familiarity with the topics
  - e.g. wireless network use experience is required
  - e.g. "some" programming experience
- Nice to know: how the Internet works, how the website works (HTTP and HTML)

Textbook and more

- Network Security Essentials by Stallings
  - will have assignment questions from this book
- Additional materials in the course schedule
- Lectures will cover more materials and you will be tested on them.

Disclaimers

- This course does NOT cover all topics in privacy and security
- This course is not equivalent to cryptography, OS, or network, Ethics courses.
- Master's report/thesis is recommended for further depth and/or width
- There will be more security-related courses in 2011.

What&Why

- What
  - it means by privacy and security
  - technologies are available for what problems
  - attacks we can prevent and/or detect
- Why
  - Privacy and security are important!
  - Reading of the day
    - http://online.wsj.com/article/SB10001424052748703977004575393173432219064.html

What do you want?

- Convenience, quality of service, free services, availability, no maintenance, …
- Privacy, fairness, right to opt out
- Who owns what?
- Who is responsible for what?

Desired security properties

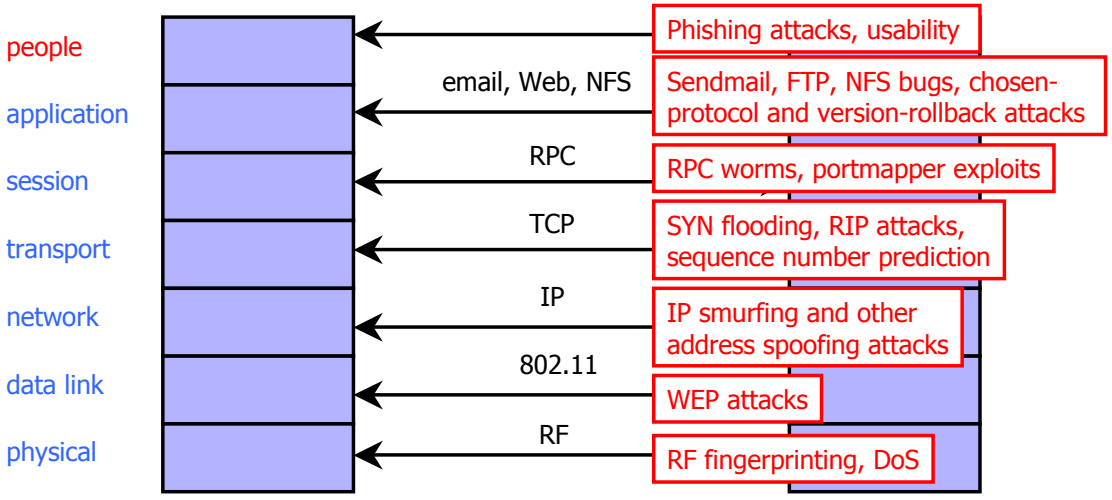
- Search engine
- Email
- Social network
- Financial services

Security jargons

- Authenticity
- Confidentiality
- Integrity
- Availability
- Accountability and non-repudiation
- Freshness
- Access control
- Privacy of XYZ

Network Stack

[Thanks to Prof. Shmatikov]



Only as secure as the single weakest layer…
…or interconnection between the layers

Course questionnaire