Final Project: Security Review

CS 475: Computer and Network Security
Due: June 4, 2015 before class

May 20, 2015

This project is a detailed security review and is worth 20% of your overall grade. The project deliverables will include a 5 minute in-class presentation and a 5-8 page paper turned in before class on June 4. You may not use late days for the final project.

The presentation will count for 10% of the final project grade. It will be graded based on:

• Staying on time
• Discussing the system and the key results of your security review clearly

The security review paper will consist of an analysis of a system containing all the elements we have described in class, but in more detail.

The paper should include:

• Detailed description of the system (10% of grade). This should be self-contained and use diagrams.

• Assets and stakeholders (5% of grade).

• Adversaries (5% of grade)

• Threats (20% of grade)
  – Categorize by security property
  – Categorize by attacker resources

• Vulnerabilities (30% of grade)
  – Research. What vulnerabilities/threats have other people found? How were they mitigated?
  – Hands-on. What vulnerabilities did you find? How did you find them? What hands-on methods or tools did you use? What did you try that didn’t result in vulnerabilities? Does this lead you to believe that the system is secure?

• Risks (10% of grade)
  – How serious are these vulnerabilities? How much should people be concerned?
  – For what uses would you consider this system safe?

• Mitigations (10% of grade). How could the system be improved?