

Outline for February 19, 2016

Reading: §16, 17 in text

Assignments due: Homework 3, due February 22

1. Administrative matters
 - a. Presentations for February 22
 - i. Francesco Capponi, “Securing the Software-Defined Network Control Layer”; questioner, Calvin Li
 - ii. Chaitrali Joshi, “Addressing the Challenge of IP Spoofing”; questioner, Sandeep Rasoori
 - b. Presentations for February 24
 - i. Mark Crompton, “A Diagnosis-Based Intrusion Detection Approach”; questioner, Yuan-Yu Chen
 - ii. Apoorva Rangaraju, “Reinforcement Learning Algorithms for Adaptive Cyber Defense Against Heart-bleed”; questioner, Francesco Capponi
2. Execution-based information flow mechanisms
 - a. Fenton’s Data Mark Machine
 - b. Variable classes
 - c. Exception handling
3. Confinement problem
 - a. What is it?
 - b. Total isolation
 - c. Covert channels, side channels
 - d. Rule of Transitive Confinement
 - e. Isolation with virtual machines
 - f. Sandboxes