

Outline for May 20, 2013

Reading: §17.3, 18, [SMB06]¹

Assignments due: Homework #4, due May 24, 2013

1. Capacity and noninterference
 - a. When is bandwidth of covert channel 0?
 - b. Noninterference sufficient but not necessary
 - c. Analysis
 - d. Measuring capacity
2. Mitigating covert channels
 - a. Preallocation and hold until process terminates
 - b. Impose uniformity
 - c. Randomize resource allocation
 - d. Efficiency/performance vs. security
3. Assurance
 - a. Trustworthy entities
 - b. Security assurance
 - c. Trusted system
 - d. Why assurance is needed
 - e. Requirements
 - f. Assurance and software life cycle
4. Policy and requirements
 - a. Security specifications
 - b. Problems with precision
 - c. Example: System X and Bell-LaPadula
 - d. Justifying requirements

¹This is available in the Resources area of SmartSite; look in the folder “Handouts”