Lecture 19 Outline

Reading: text, §16.5, 17.1–17.2

1. Examples
   a. Security pipeline interface
   b. Secure network server mail guard

2. Confinement problem
   a. What it is
   b. Covert channels
   c. Rule of transitive confinement
   d. Difficulty of preventing leaking

3. Isolation: virtual machines
   a. What it is
   b. Example: KVM/370
   c. Example: VAX/VMM

4. Isolation: sandboxes
   a. What it is
   b. Adding mechanisms to libraries or kernel
   c. Modify program or process to be executed
   d. Example: Janus