

Outline for February 26, 2008

1. Isolation: virtual machines
 - a. What it is
 - b. Example: KVM/370
 - c. Example: VAX/VMM
2. Isolation: sandboxes
 - a. What it is
 - b. Adding mechanisms to libraries or kernel
 - c. Modify program or process to be executed
 - d. Example: Janus
3. Covert channels
 - a. Storage vs. timing
 - b. Noise vs. noiseless
 - c. Existence
 - d. Bandwidth
4. Covert channel detection
 - a. Noninterference
 - b. Shared Resource Matrix Model
 - c. Information flow analysis
 - d. Covert flow trees
5. Noninterference
 - a. Version of the Unwinding Theorem
 - b. Specifications of SAT
 - i. *object_create*
 - ii. *can_read*
 - iii. *readable*
 - c. Example analysis for SAT
6. Shared resource matrix methodology
 - a. Identify shared resources, attributes