

Outline for January 30, 2002

Reading: §4.1–4.5, §5.1–5.3 (not including §5.2.3, 5.3.1)

1. Greetings and Felicitations!
2. Puzzle of the day
3. Policy
 - a. Sets of authorized, unauthorized states
 - b. Secure systems in terms of states
 - c. Mechanism vs. policy
4. Types of Policies
 - a. Military/government vs. confidentiality
 - b. Commercial vs. integrity
5. Types of Access Control
 - a. Mandatory access control
 - b. Discretionary access control
 - c. Originator-controlled access control
6. High-Level Policy Languages
 - a. Characterization
 - b. Example: DTEL
7. Low-Level Policy Languages
 - a. Characterization
 - b. Example: Tripwire configuration file
8. Goals of Confidentiality Policies
9. Bell-LaPadula Model with Levels Only
 - a. Security Levels
 - b. Simple Security Property
 - c. *-Property
 - d. Basic Security Theorem
10. Bell-LaPadula Model
 - a. Compartments
 - b. BLP as lattice structure
 - c. Simple Security Property
 - d. *-Property
 - e. Basic Security Theorem
11. DG/UX B2 UNIX System
 - a. Hierarchy of levels
 - b. Labels, explicit and implicit
 - c. MAC tuples