CS590U: Access Control: Theory and Practice   Spring 2005

Assignment #2   Due: Thursday, Feb 9, 2005.

This homework must be typed.

Paper review   Read the following papers, and write a report for each paper. Each report should include a summary of the paper's main point as well as your reaction to the paper. It should be between 1/2 page and 1 page.

1. J. A. Goguen and J. Meseguer: "Security Policies and Security Models", IEEE Symposium on Security and Privacy, 1982.

2. B. Lampson. "A note on the confinement problem". Communications of the ACM, October 1973.

Noninterference in non-deterministic systems   The model and the noninterference property in Goguen and Meseguer's 1982 paper is mainly for deterministic systems. To model nondeterministic system, the two functions do and out need to be made nondeterministic. This exercise asks you to explore how to define non-interference property for non-deterministic systems.

1. Find at least five related papers, list the title, authors, publication venue, year, as well as what leads you to that paper.

2. Read at least one of the papers you have found, write a report for it. You are welcome to read more than one.

3. Come up with definitions for non-deterministic systems and non-interference in such systems. The definitions can be taken from existing papers.