

CSE 543 - Computer Security (Fall 2006)

Lecture 12 - OS Security

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URL: <http://www.cse.psu.edu/~tjaeger/cse543-f06/>

OS Security

- An secure OS should provide the following mechanisms
 - Memory protection
 - File protection
 - General object protection
 - Access authentication
- How do we go about designing a trusted OS?
- “Trust” in this context means something different from “Secure”

Trust vs. Security

- When you get your medication at a pharmacy, you are “trusting” that it is appropriate for the condition you are addressing. In effect, you are arguing internally:
 - The doctor was correct in prescribing this drug
 - The FDA vetted the drug through scientific analysis and clinical trials
 - No maniac has tampered with the bottle
- The first two are matters “trust”, and the last is a matter of “security”
- An OS needs to perform similar due diligence to achieve “trust” and “security”