

CS590U

Access Control: Theory and Practice

Lecture 22 (April 13)

Other Topics in Access Control &
Review of the Course



Database Access Control

- Grant/Revoke
- Roles
- Stored procedures
- Fine grained access control



Firewalls

- Firewalls do access control at packet level
- Typical firewall policies are specified using an ordered ruleset
 - understanding a rule is difficult, as it interacts with other rules before it
 - analysis tool
- Similar techniques are used in many places, e.g., ordered ACL in IBM Tivoli, MS Windows
- Decision Diagrams Provide an alternative to ordered rulesets



Other Topics

- XACML
- Workflow systems

Review of The Course



Access control exist in many settings

- Operating systems
 - dynamic: processes
 - static: users sharing resources
- Database systems
- Mobile code
- Distributed systems
- Enterprise information systems
- Almost any information systems



Access Control

- Theory of access control consists of scattered, often loosely connected, and occasionally useful pieces
 - just like the information security field in general
- Access control in real-world systems use some basic ideas from theory, and can be complicated and inelegant



Topics We Have Covered

- See the syllabus



Next Lecture

- Project presentations