



# Trust Management

## CS 6463 Lecture One

Prof. William Winsborough  
January 18, 2006

# Welcome

- Syllabus:

- <http://www.cs.utsa.edu/~winsboro/teaching/CS6463-S06/Syllabus.htm>

- If you cannot make my office hours, please set up an appointment

- Email, call, drop by

- This class is about my area of research

- Some of the papers we will study were co-authored by the instructor

# What is Trust Management?

- An approach to designing authorization systems for use in decentralized environments and open systems
  - Business partnerships or coalition operations
  - The Internet
- Because of scale, resources (files, software, computing equipment,...) need to be shared selectively with resource requesters (users, servers, processes,...) with whom the resource owner may have no prior relationship
- Access control policies must be able to utilize information from various sources about resource requesters
  - Credentials
  - Delegation of authority
- In some sense trust management generalizes public key infrastructure (PKI)

# Course Objectives

- We will study practical and theoretical issues in design and construction of trust management systems
- We will also study other, more centralized access control systems, such as role-based access control, for the purpose of understanding the strengths and weaknesses of the various approaches to managing authorization
- The course will also consider emerging tools and techniques that can be used by authors of access-control policy authors to ensure that policy objectives are met

# Based on Research Papers

## ■ No text book

- Lectures will be based on research papers, which will be posted on the course homepage:
- <http://www.cs.utsa.edu/~winsboro/teaching/CS6463-S06/>
- You are required to read these papers before the corresponding lectures
- Some papers may be discussed for multiple class periods
- I will lecture from notes that will also be posted

# Course Activities

- Paper synopses
  - Due at start of class in which the paper in question is first discussed
- Discussion during class
  - Attendance is required
- Extended synopses
  - Due shortly after the last class in which the paper is discussed
- Class project
  - Tailored to individual interests
- No exams

# Paper Synopses

- Roughly 1 page
- Describe topic and key research contributions of the paper
- Assess its significance and the areas in which the student feels the paper was successful and the areas in which it is lacking
- The goal is to demonstrate you have made a significant effort to understand the paper and have thought about its goals and whether they are met
- 20% of grade

# Class Discussion

- I will review the main points of the paper and then lead a discussion of its merits
- Goals of discussions:
  - To share a stimulating and insightful analytical experience
  - To develop ideas together that we could not develop alone
- You are required to try to participate and cooperate with the group in this regard
- 25% of grade

# Extended Synopses

- After we have finished discussing a paper, you are expected to revise and extend your synopsis
- The extended synopses should be no more than pages
  - 11 point font and 1 inch margins
  - Try to use that space as effectively as possible
- 25% of grade

# Class Project

- You must propose what you will do and we will negotiate an appropriate project definition
- Example projects
  - Build example applications using existing trust management software
  - Write a paper in which you compare and contrast existing trust management system designs
- The goal is for us to define a project that suits your tastes and educational goals
- 30% of grade

# Business

- Occasionally I will be unable to lecture due to travel
  - Guest lecturer January 23 and 25:  
Prof. Shouhuai Xu
- Papers for January 23, 25, and 30 will be posted on homepage no later than tomorrow