

Information Operations Across Infospheres: Assured Information Sharing



Dr. Bhavani Thuraisingham, University of Texas at Dallas

Objectives

- Develop a Framework for Secure and Timely Data Sharing across Infospheres.
- Investigate Access Control and Usage Control policies for Secure Data Sharing.
- Develop innovative techniques for extracting information from trustworthy, semi-trustworthy and untrustworthy partners.
- Budget FY06-8: AFOSR \$300K, State Match. \$150K

Publish Data/Policy Publish Data/Policy Publish Data/Policy Publish Data/Policy Component Data/Policy for Agency A Component Data/Policy for Agency C

Scientific/Technical Approach

- Conduct experiments as to how much information is lost as a result of enforcing security policies in the case of trustworthy partners
- Develop more sophisticated policies based on rolebased and usage control based access control models
- Develop techniques based on game theoretical strategies to handle partners who are semi-trustworthy
- Develop data mining techniques to carry out defensive and offensive information operations

Accomplishments

- Developed an experimental system for determining information loss due to security policy enforcement
- Developed a strategy for applying game theory for semi-trustworthy partners; simulation results
- Developed data mining techniques for conducting defensive operations for untrustworthy partners

Challenges

Handling dynamically changing trust levels;
 Scalability