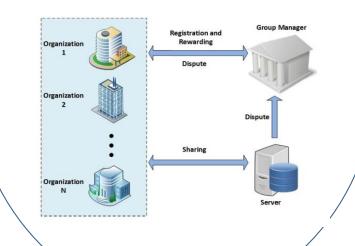


# Establishing market based mechanisms for CYBer security information EXchange (CYBEX)

# **Challenge:**

- Can we establish market based mechanisms for enabling Cyber Security Information Exchange (CYBEX)
- Can we become proactively secure?

# Explore evolutionary dynamics in heterogeneous framework. Analyze impacts & importance of security info. Sharing & insurance based mechanisms Task 2 Investigate survivability under preferential intersubjective relational regime - Coexistence with malicious nodes: benefit or bane? Explore Interruption of the property of the pro



## **Solution:**

- Explore game theory (micro and macroeconomic theory as a substrate)
- Explore behavioral game theory
- Explore CYBEX testbed development

Award #1528167

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### **Scientific Impact:**

- Identify, model, and analyze the competition process among entities in cybersecurity information exchange framework
- Analyzing the evolutionary and adaptive multidimensional environment with intertwined competitions

### **Broader Impact:**

- Research results will demonstrate the level of interaction among corporations for security info. exchange, which can potentially be used by authorities in their regulation process.
- Robust outreach efforts to K-12, General Public, Undergraduate, Graduate students (including minority and women) in CS and Security