

DARPA Security Mini-task

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Groups Involved

- BBN
- SRI
- UMass / UMich / U. Arizona
- UC Berkeley

Goals & Organization

- Looking to define the problem space
 - Analyze military applications
 - Pursuer / Evader
 - Common Reference Grid
 - Acoustic Counter-Sniper System
 - Enumerate the threats in the sensor space
 - Applications are being created, deployed and used
 - Security is not often a priority, but it should be
 - Eg: Tampering, Collision, Exhaustion, Flooding
- Look at what problems are currently being studied
 - What problems do the groups address
 - How to apply standard solutions to the current task

Group Proposals

- UMass
 - Security Broker:
 - Resource / Security Tradoff
 - Dynamically change ciphers, cipher strength & parameters based on current conditions: load / network / power / ...
 - Intrusion Detection
 - Identify anomalous data
- SRI
 - Intrusion Detection
 - Mutual monitoring
 - Feedback into routing to route around problem areas
 - Preserve resources when detecting attack: Sleep, Hibernate
- BBN
 - Key management
 - Efficient PKI for motes
 - Authenticate external entities: Drone airplanes.
- Berkeley
 - Extend TinySec
 - Key management Infrastructure
 - Insider attack protection
 - Secure routing protocols
 - Secure aggregation metrics
 - Spread spectrum techniques

Status

- Report being assembled for PI Meeting