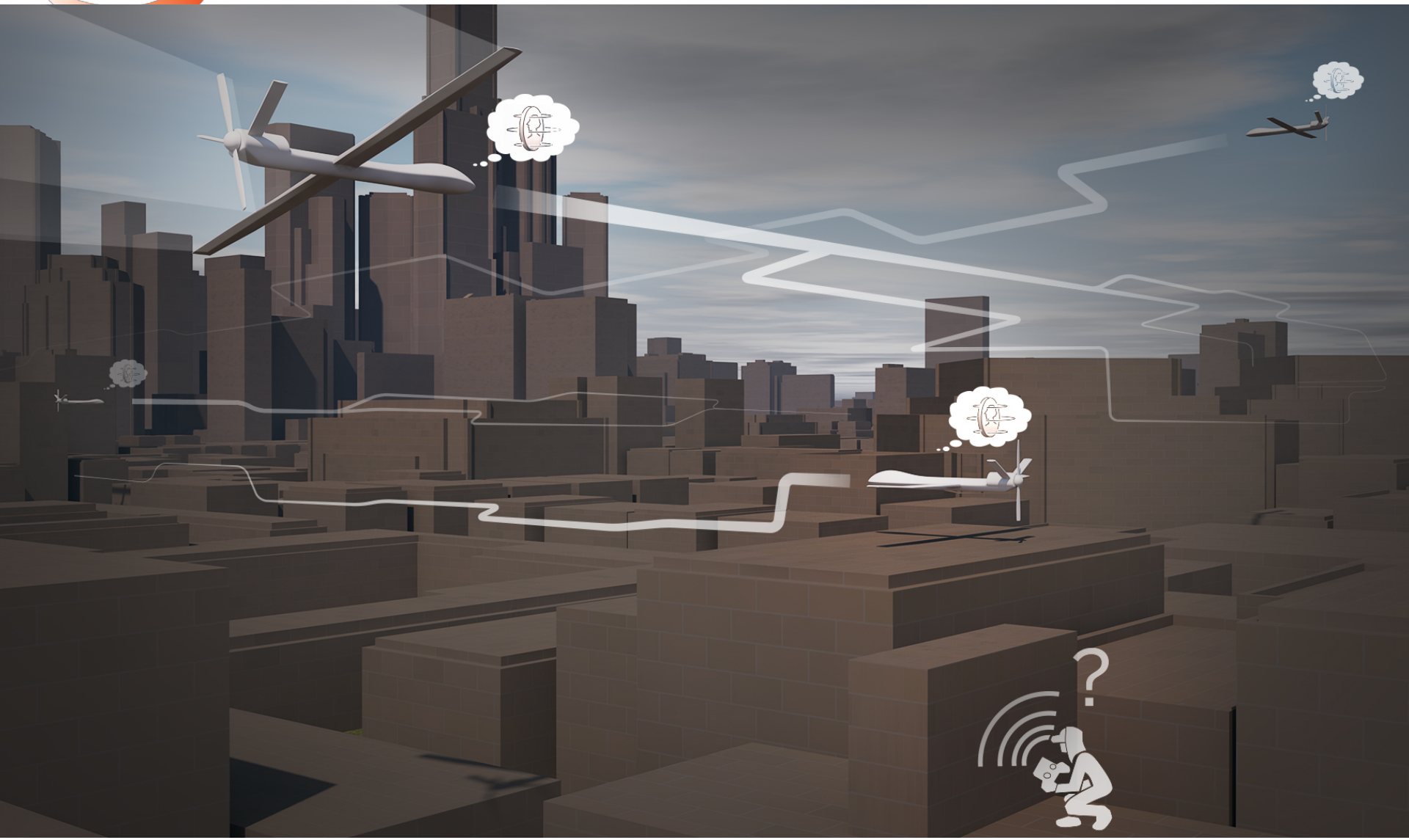
# Protecting safety- and mission-critical information

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# Protecting privacy in computing

- Privacy-preserving computing using secure multiparty computation
  - Semi-honest vs malicious models
- Outsourcing computation to third-parties while maintaining security
- Trustworthy platform architectures and SMC

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# Protecting privacy in communication

- Coalitions can require agents to share sensitive information, such as locations
- Agents must protect information as it is being shared
- Differential privacy provides a statistical privacy framework that we can leverage to safeguard data in communications

# Protecting privacy in execution

- Privacy in terms of evolution of beliefs of an agent or an intruder
- Verification of privacy properties as optimization-based search of algebraic certificates