



Trust and Anonymity

Internet Innovations Workshop
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Working Group Charter

Identification is critical to enabling trust management for Internet communications as many forms of identity are being used today, and the Internet and commercial applications suffer from abuse/attacks in the identity system. Incremental changes such as IPsec or NAT addressed some trust issues but a right model to manage trust is needed for future Internet architecture.



Framing Questions

- What will the future (trust model) look like for decentralized network and applications considering the trust and anonymity issues?
- How do we migrate from existing trust models to a new one better adapted to networking?
- How to balance between identification/traceability and privacy/anonymity?
- How (and whether or not) should we architect the Internet differently such that we will have a much better handle, in a fundamental way, on the issue of trust and anonymity?



- **Grand Challenge 1:**

- Can we preserve privacy and still allow network communication?

- **Experiments Required:**

- Can randomizing communications help?
- What are peoples' definition(s) of privacy?
- Can we related social relationships with privacy notions?
- What is the role of "forgetting"?

- **Industry/Academic Relationship:**

- Create incentives to align on protecting privacy (today insufficient transparency of personal information transfer for industry to "care")



- Grand Challenge 2:

- How do we express policy, attach it to data, and enforce the policy where ever the data goes?

- Experiments Required:

- How to transmit policy to data in a way that data cannot be accessed without the policy?

- Industry/Academic Relationship:



- Grand Challenge 3:

- Map human intent into technical enforcement mechanisms

- Experiments Required:

- Do user studies to capture intents, build systems to express intents, do user studies of proposed mechanisms

- Industry/Academic Relationship:

- Academia to do the mapping of policies industry provides



- Grand Challenge 4:

- Do we need identity to establish and maintain trust?

- Experiments Required:

- Express high level policies without federated identities or namespaces
- Create distributed, fault tolerant credentials based on authentication
- Show how to implement the transitive access problem

- Industry/Academic Relationship:

- Academia to do the mapping of policies industry provides