Aura

A peer-to-peer reputation system

Cat Okita, 2003
Reputation Systems

• What is a Reputation System?
  – Livejournal/Friendster, eBay, Advogato, Slashcode

• Why do you care?

• What could you use this for?
  – Establishing trust, performance metrics, meme propagation, spam filtering
Challenges

- Authentication
- Trust
- Non-repudiation
Design Considerations

- Fast, resource efficient
- Secure - Difficult to corrupt information or impersonate others
- Portable - Easy to use from any location
- Simple to use and extend (plugins)
- Independent - not dependant on a centralized server
Attacks

- Information poisoning
  - Flooding
  - Trojans
  - Identity theft
  - Impersonation
  - DoS
Implementation

- **Peer-to-peer**
  - Local datastore
  - Can also run as an aggregator
- **Reputation**
  - Overall personal and general, or by specific area
- **Gossip**
  - Information about indirect entities
A quick check of Reputation

- Picking a mailer
  - Stable, fast, secure?
- Finding out about a poster to a mailing list
  - Credibility: Crazy, expert, unknown?
- Filtering
  - Personal or server level
Configuration

• Text-based configuration
  – Use Templates to describe data format to exchange details
• Requires use of public/private key cryptography
Future Plans

- Pretty GUI
- Better cross-platform portability
- Improved statistical reporting
- Implementation of group keys
- Trigger automation
Finis

• Available at:
  – http://www.geekness.net/tools/aura

• Email to:
  – aura@geekness.net

• Questions???