The RFID Ecosystem: Experimenting with a Pervasive RFID-based Infrastructure

Deployment
- 90,000 sq. ft. building
- EPC Gen 2 equipment
- 100s of readers & antennas
- 1000s of passive tags
- People and objects tagged

Architecture

Privacy
- Physical Access Control
  - Users only “see” tag reads that occurred when and where they were present
- Data privacy research
- Authorization views
- Privacy for probabilistic data
- Aggregation and perturbation

Applications
- Extensible web framework
- Reusable AJAX libraries
- Map-based visualization
- Push & pull-based queries
- Examples:
  - Friend finder
  - Object finder
  - Personal digital diary

Tools
- Scenic:
  - End-user event specification
- Tool to define entities
- Tools for user privacy control
- A simulator for testing/debug

PEEX: Probabilistic Event EXtractor

http://rfid.cs.washington.edu

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