

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

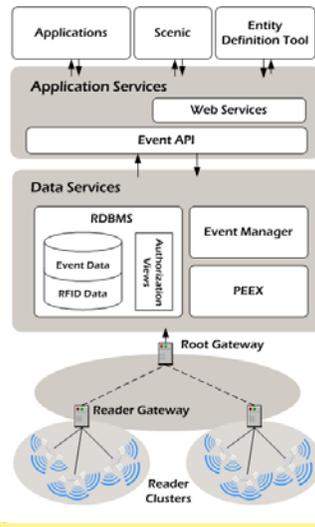
UW CSE Affiliates 2007

Deployment

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



Architecture



Tools

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



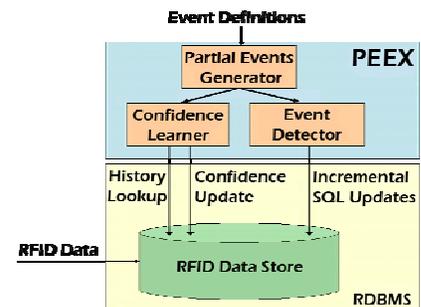
Privacy

- 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



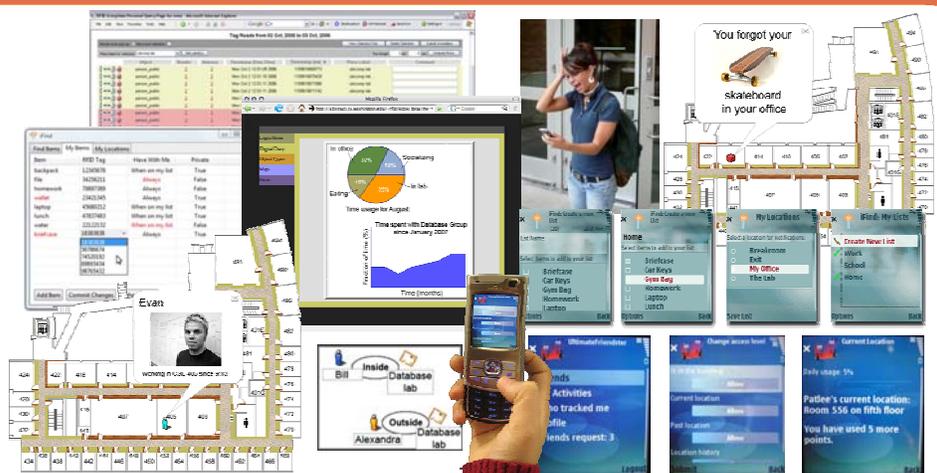
Event Detection

PEEX: Probabilistic Event EXtractor



Applications

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



<http://rfid.cs.washington.edu>

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