

Spatial World Models for Mobile Context-Aware Applications

NexusScout

An Advanced Location-Based Application
on a Distributed, Open Mediation Platform



Use Cases

- Display Map**
 - Specify format, desired object types and clipping area
 - Map is dynamically generated from federated data
- Access Information**
 - Virtual Information Towers (VITs) tie information (Web-pages) to locations
- Mobile Objects**
 - Show positions of members of a visiting group
 - Prerequisite for spatial events and geo messaging

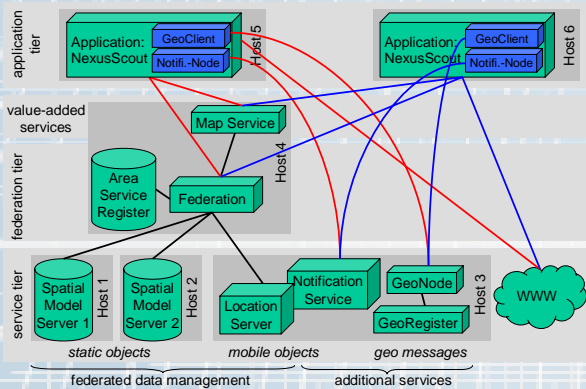


Use Cases

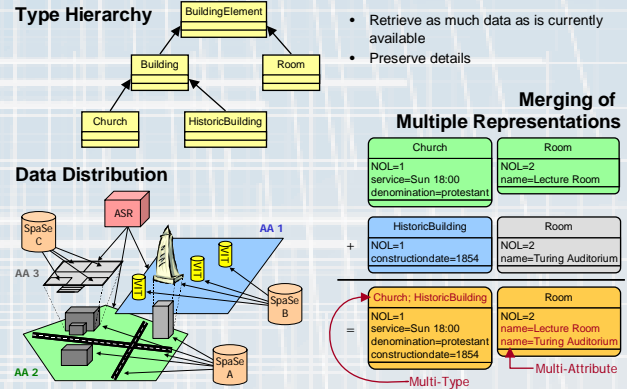
- Spatial Events**
 - I want to buy shoes
 - OnEnterArea-Event
 - I want to talk to my colleague
 - OnMeeting-Event
- Get current Position**
 - Using GPS
 - Using IR-Beacons
- Geo-Messages**
 - Send a message to persons within a specified area
 - Emergencies
 - Announcements in stations



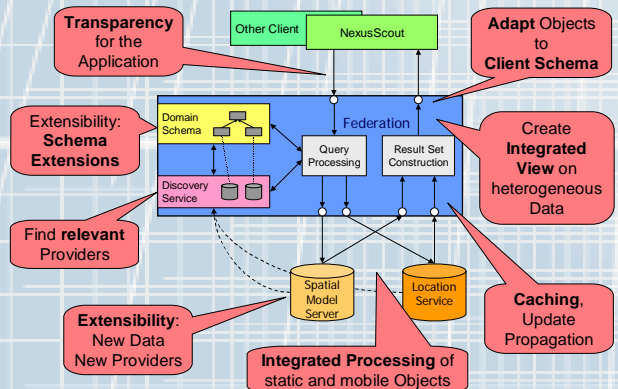
Architecture



Query Semantics



Data Management Challenges



Future Work

