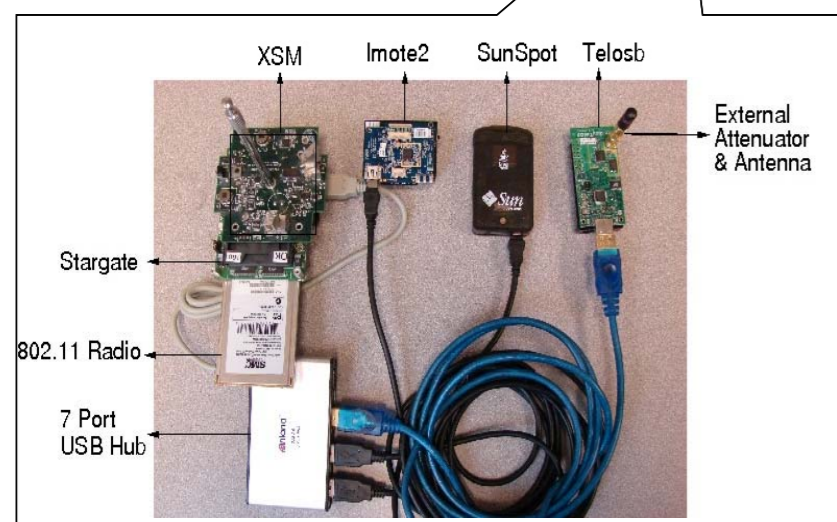
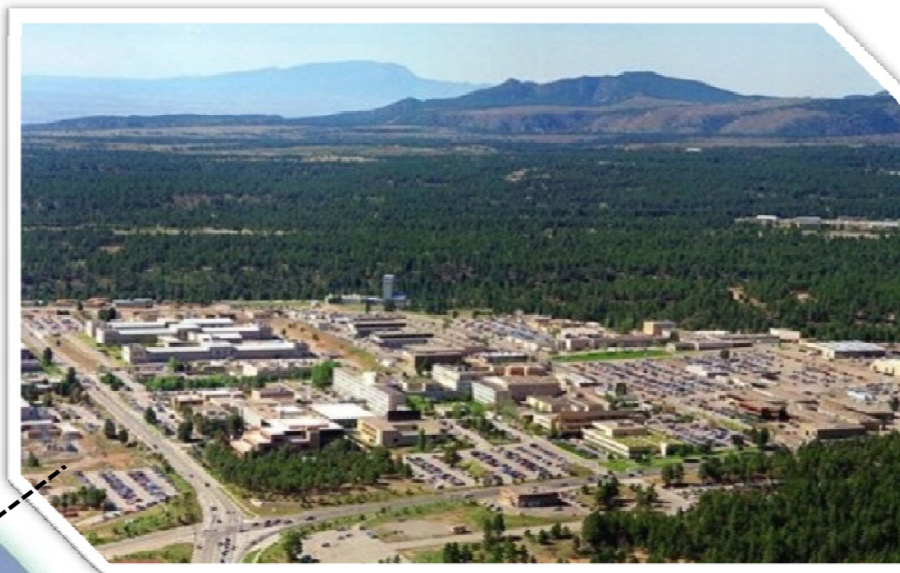
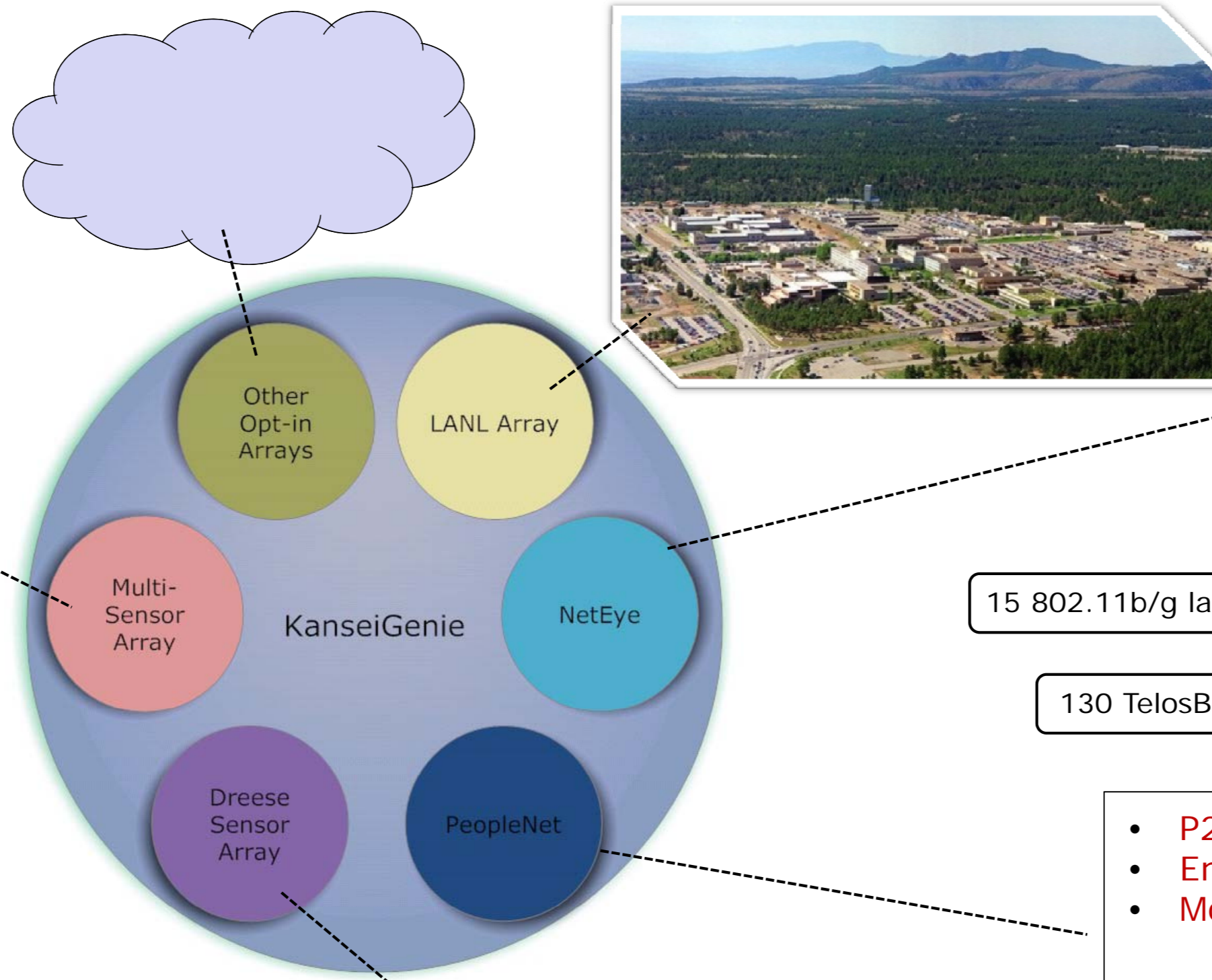


KanseiGenie Overview

- At-scale testing
- Multi-array applications
- Hybrid experimentation
- Services-model of interaction
- Sensor data injection
- Object code, source code or high-level language input



User Application --- █
 KanseiGenie Services --- █
 Client Services --- █



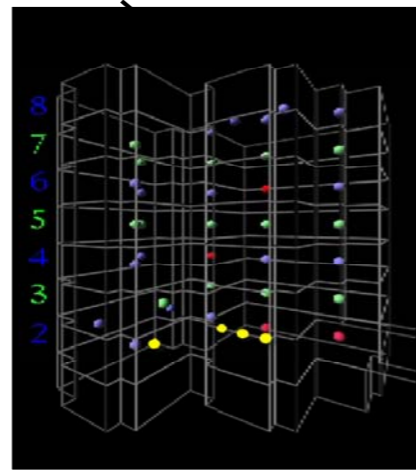
15 802.11b/g laptops

130 TelosB motes

- Sensor and mesh networking expt.
- Interactive experimentation control, sensing and control data injection
- Privacy-preserving user view control
- Urban, health/occupational sensing



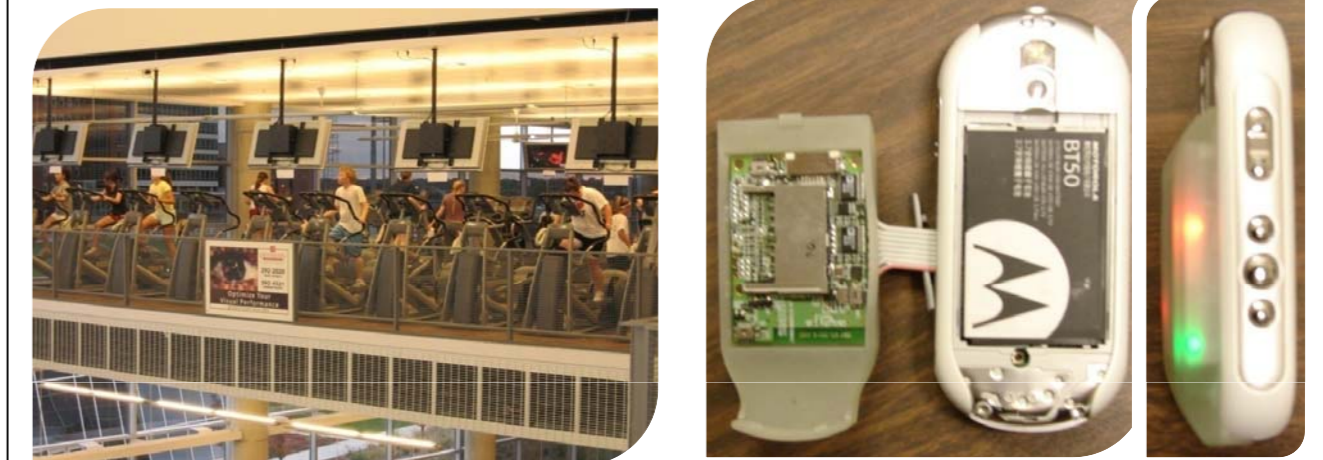
- Dreesee Sensors
- Occupancy
 - Elevator
 - Temperature
 - Anchor Nodes



- Location-specific user-supplied sensing (conference room occupancy, elevator location)
- Fabric virtualization

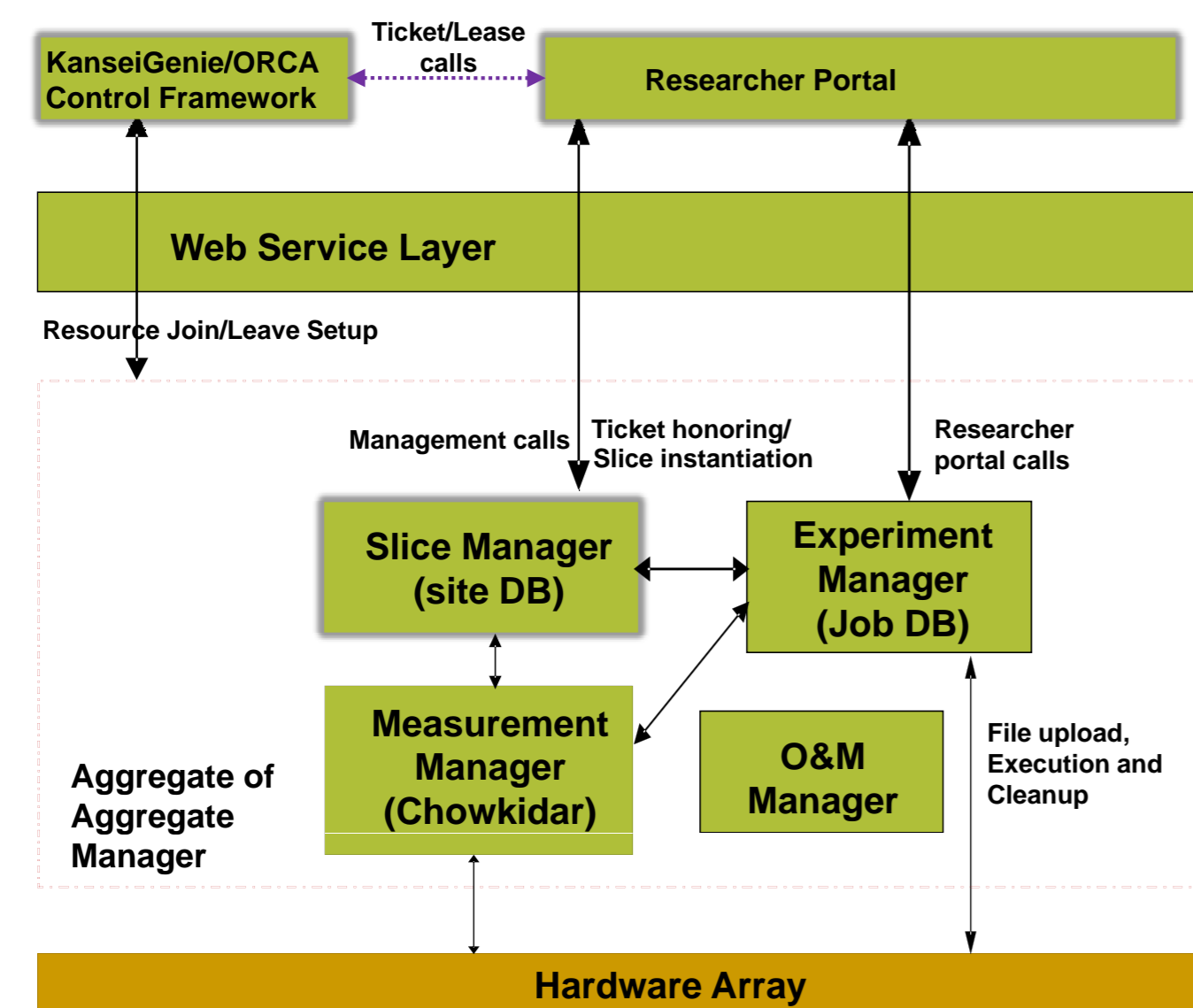
- P2P social networking apps
- Environmental sensing: NO_x, CO₂
- Mobility testing

Cell-phone Psi-Mote Mobile Array

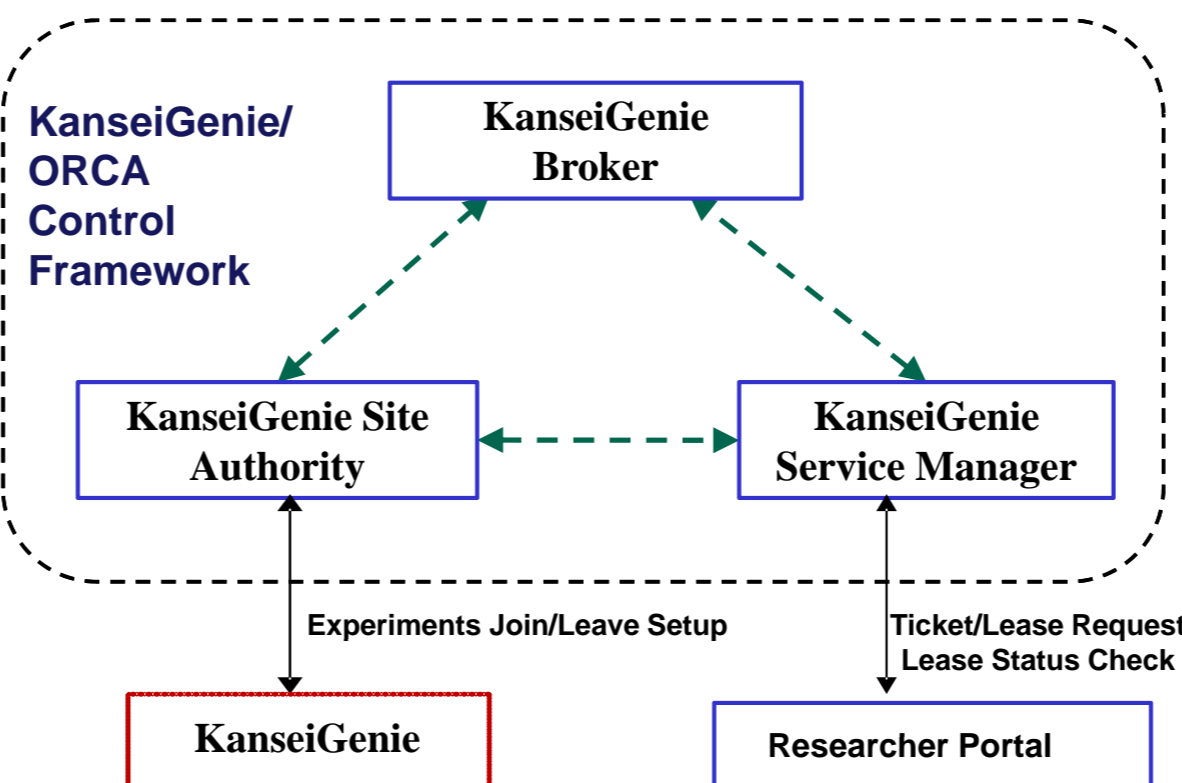


Project Specifics: architecture, ORCA integration, KanseiGenie Doctor

KanseiGenie Architecture

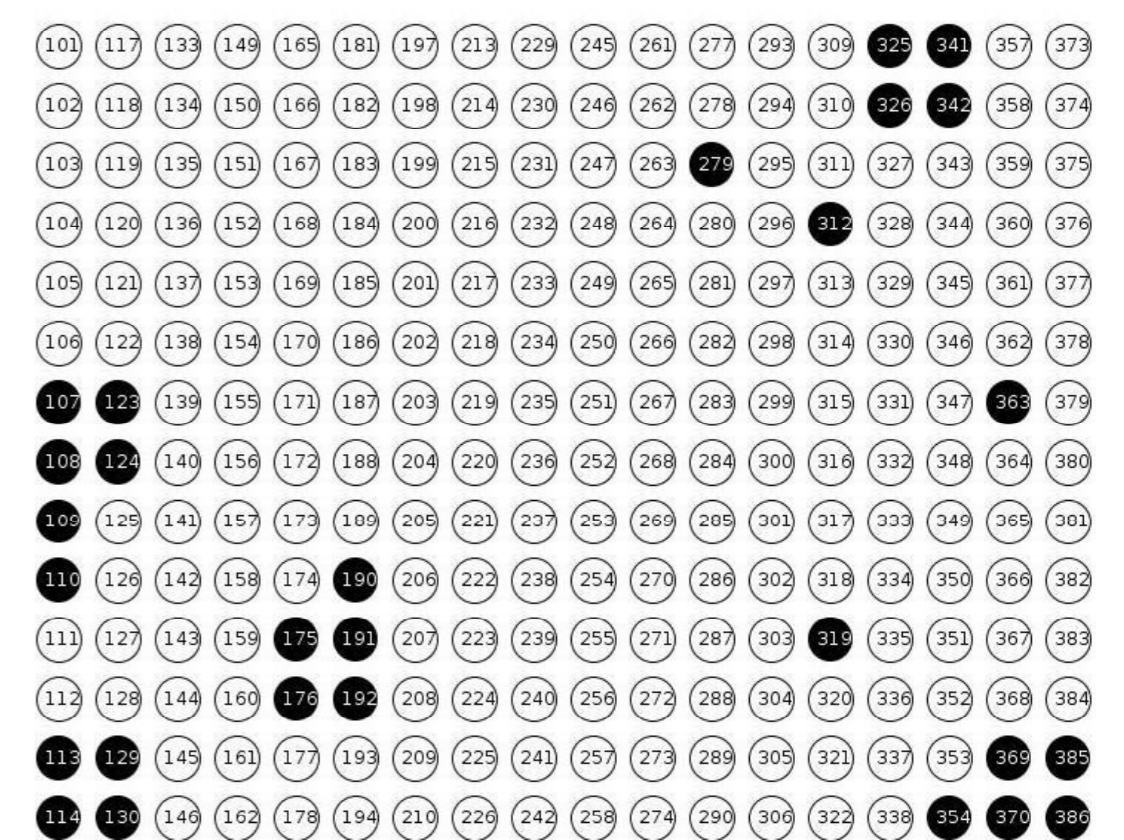


Legend: Secured SOAP, SOAP, XML-RPC



- KanseiGenie/ORCA control framework manages federated resources
- Aggregate of Aggregates provides central point of access to all Aggregate Managers
- Web service layer and all four logical layers for GENI implemented on JBoss and EJB3.0

status for TelosB's

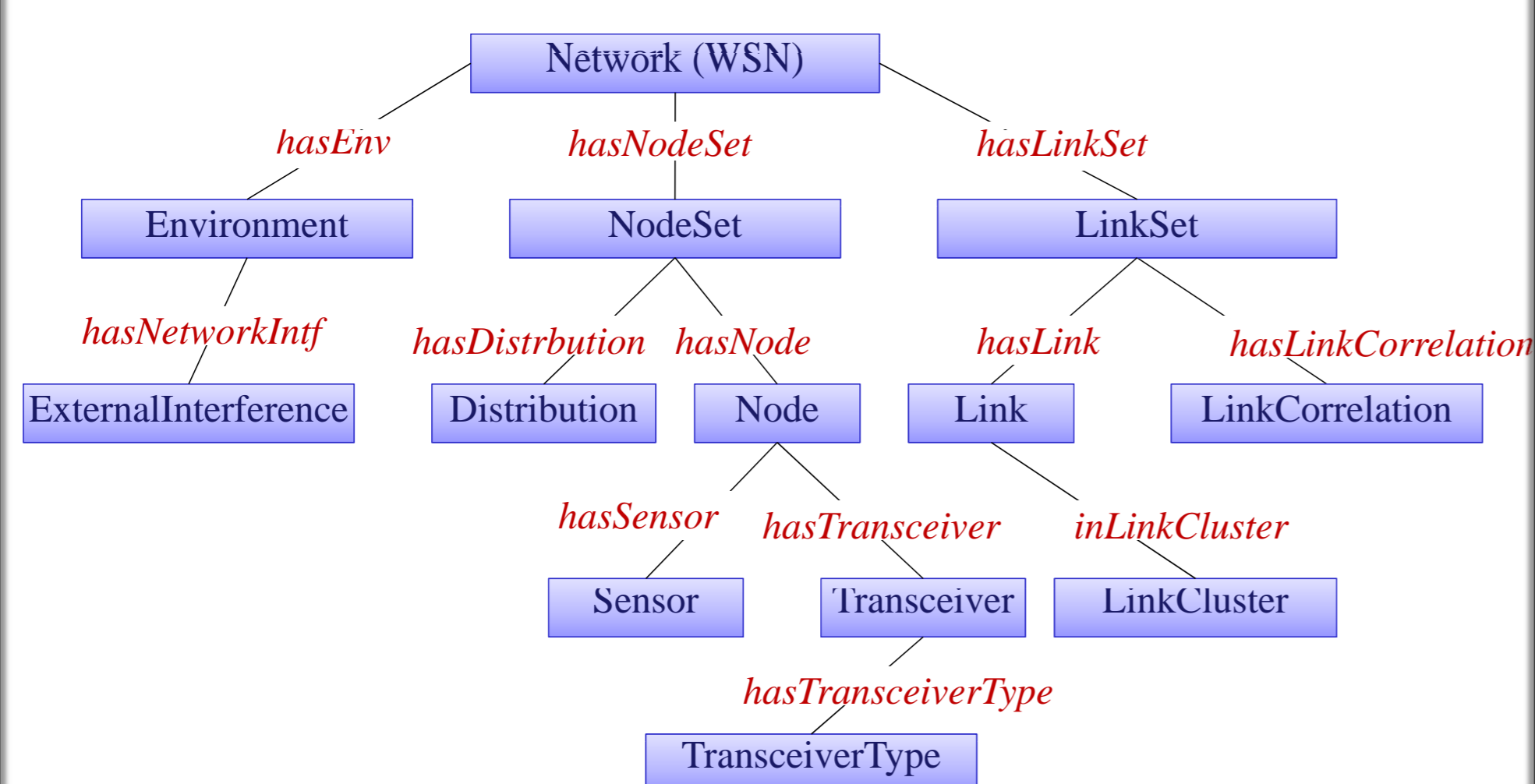


KanseiGenie Doctor

- Distributed solution
- Heterogeneous platforms
- Graphic presentation of current health status and historical data
- Future plan: implement self-stabilizing algorithm

LENS: Language for Embedded Networked Sensing

➢ Ontology



➢ Implementation and Integration

