Ivy Equipment Inventory System

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Motivation

• Research centers have a number of shared equipment and they moving around.
• Equipment tracking can help better utilize the equipment.
• With wireless sensor nodes, the equipment can be monitored while they move around freely.

Fig1: Equipment that move around
System Architecture

- The system consists of app nodes (tracking nodes), network nodes, base station and remote database.
Configuration

• Tracking nodes are mounted on the equipment and broadcast ‘alive’ messages.

• Network nodes relay the messages to the base station.

• The messages are logged to the database at the base station.

Fig2: Sensor node mounted on a function generator

Fig3: Sensor nodes on the base station
Web User Interface

- A web user interface gives a view of equipment activities.
- Equipment properties and network node locations are maintained.
- Equipment history and current status are displayed.
Demonstration

- http://www-bsac.eecs.berkeley.edu/projects/ivy/