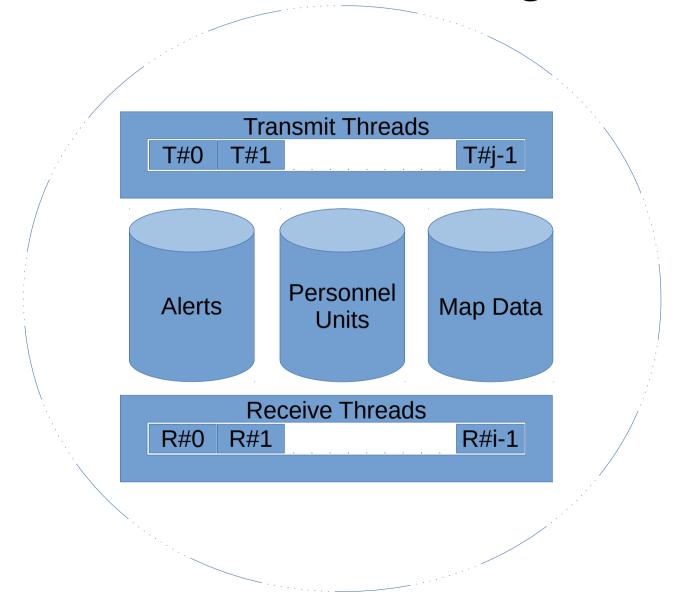
Design Overview

- Hardware Physical Layout
- Back-End Storage
- Front-End Display Interface
- Sensor Data Processing / Update
- External Network Data Interface

Hardware Physical Layout

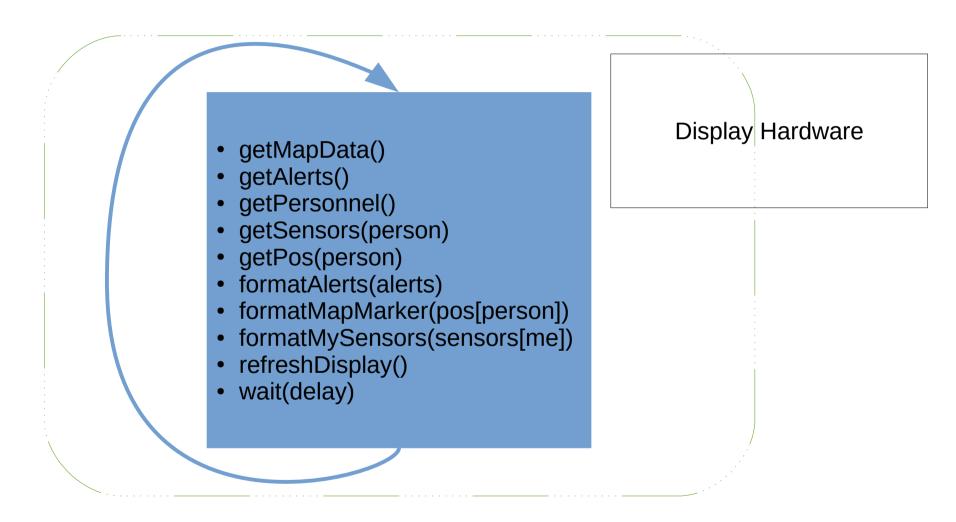
- Headset Mounted Display
- Back-End Server Unit (Pi-2)
- Marker Mounted Sensors
- Mobile Power Pack(s)
 - Possibly Shared By Sensors, Display and Back-End

Back-End Storage

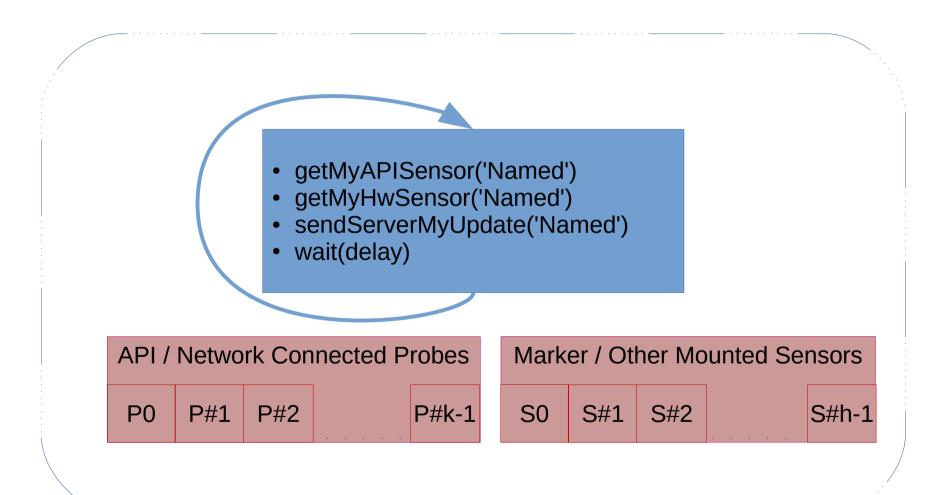


Note: If connection is from outside, use the 'External Network Data Interface' methods

Front-End Display Interface



Sensor Data Processing / Update

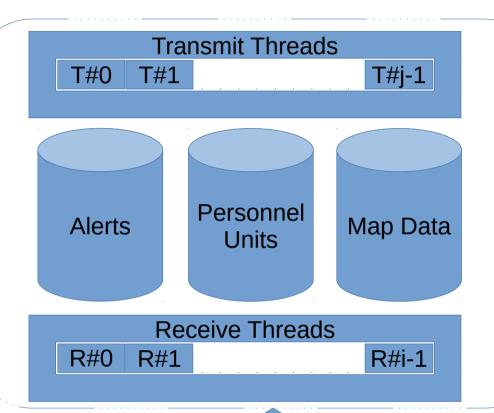


External Network Data Interface

```
my_name
['name0', ...]
['sensor0':'value', ...]
received_bool
wait(delay)

External Network Interface
```

Collective Data Flow



- my_name = getMyName()['name0', ...] = getExtNameList()
- ['sensor0':'value', ...]= getNodeStatus(name)
- received bool = sendAlert(msg, alertUrgent=%, to='name')
- wait(delay)

External Network Interface

Display Hardware

- getMapData()
- getAlerts()
- getPersonnel()
- getSensors(person)
- getPos(person)
- formatAlerts(alerts)
- formatMapMarker(pos[person])
- formatMySensors(sensors[me])
- refreshDisplay()
- wait(delay)

- getMyAPISensor('Named')
- getMyHwSensor('Named')
- sendServerMyUpdate('Named')
- wait(delay)

API / Network Connected Probes

P#0 P#1 P#2

P#k-1

Marker / Other Mounted Sensors

S#0 S#1 S#2

S#h-1