Healthnet

Design and Architecture

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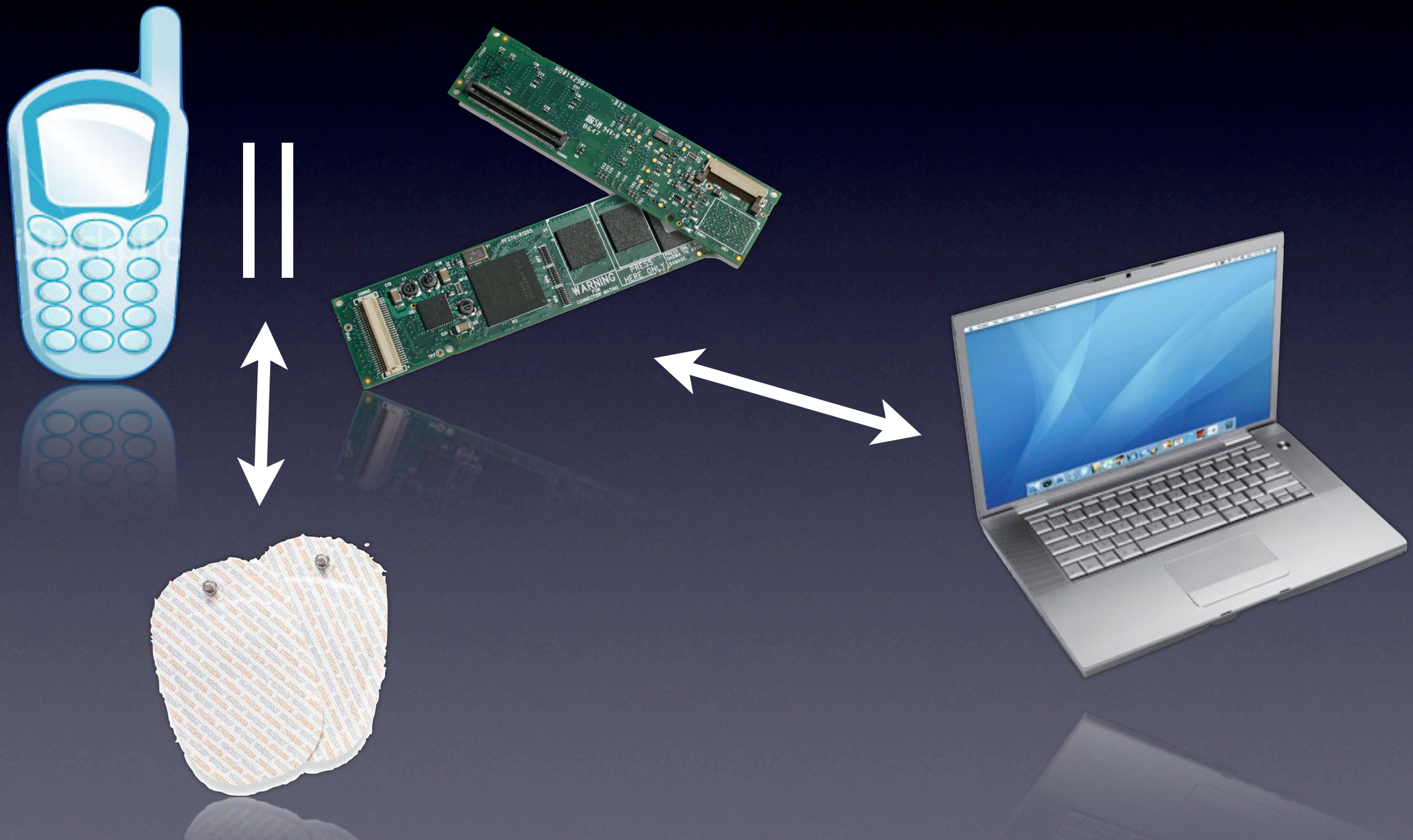
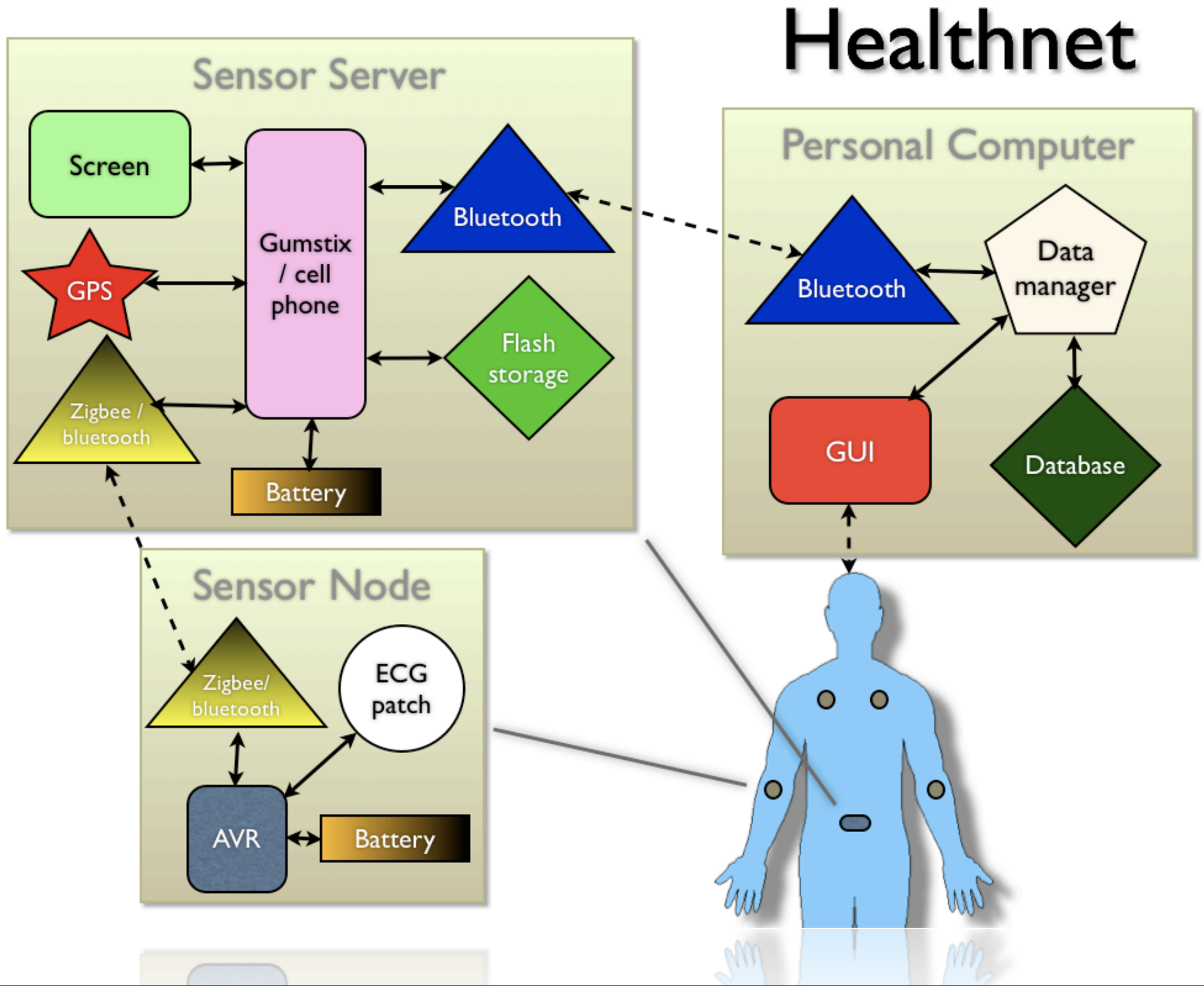
Status Update

- Idea: On-body network which monitors and analyzes personal activities.
- Parts ordered. Waiting for them to arrive.
- Considering cell-phone instead of gumstix for sensor server.
- May use mica2dots instead of custom sensor nodes.

Architecture Overview



Architecture Specifics



Use Cases

- Device initialization and pairing of sensor nodes with cell phone or Gumstix.
- Streaming data from sensor nodes to cell phone or Gumstix while engaging in activity.
- Uploading data to computer for analysis.
- Displaying data to user via graphical interface.

Risks and Mitigation

- **Risks**
  - Problems with sensors and nodes.
  - Inability to support data rates between devices.
  - Bluetooth.
  - Data integrity.
- **Mitigation**
  - Alternative node hardware: mica2dots.
  - Compression and less frequent transmission.
  - USB.
  - Error detection. Variety of sensors.