CASHEM-Context-Aware Smart Home Energy Manager

Honeywell

Early stage research project testing comprehensive home energy management with effective consumer engagement

Dept. of Energy (DoE) Buildings Technologies Program

Two year R&D and prototype demonstration project

Team Members

Honeywell Labs - Minneapolis

Honeywell Technology Solutions - Bangalore

In partnership with

Pacific Northwest NATIONAL LABORATORY

BOSCH

Pentair

CASHEM- technology to understand consumers

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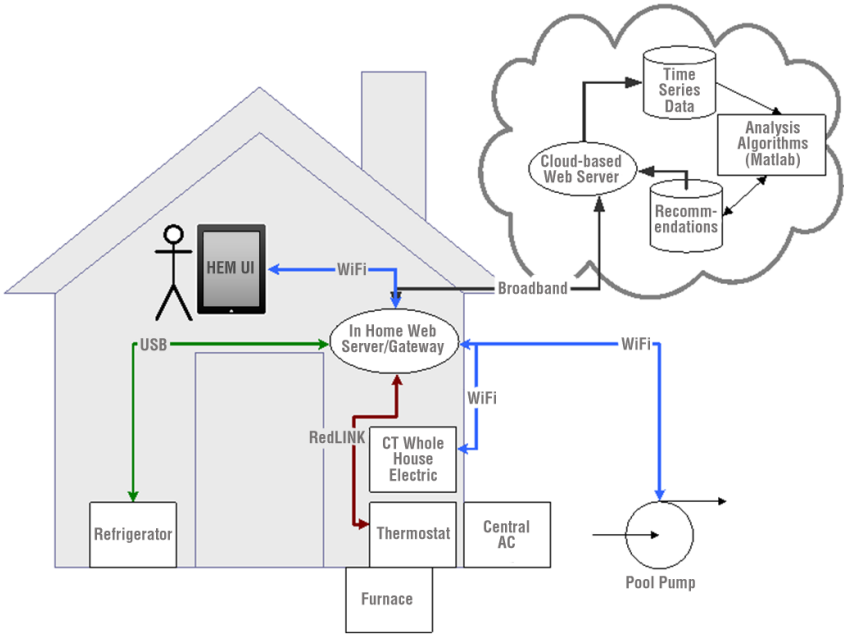
- **Integration**
  - Implemented with in-home web server to test UI functions during pilot and push data to Amazon EC2
  - Defined API for control function connectivity across diverse devices
- **Energy analytics**
  - Disaggregating
  - Occupancy calculations
  - What-if modeling from data
  - Recommendation messages
- **User interface design**
  - Unified HTML5 based interface on tablet
- **Field testing**
  - Live testing in residences



CASHEM-user perceptions

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"CASHEM brought a change (positive) to our lifestyle and energy management."

" The biggest incentive with CASHEM is the tips and having feedback on energy consumption and to get reminded periodically that these settings are really helping with your energy consumption."

"We altered our actual usage/habits."

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