

UC Berkeley

Energy Use in Buildings Enabling Technologies

Title

Demand Response Business Network (DRBiznet)

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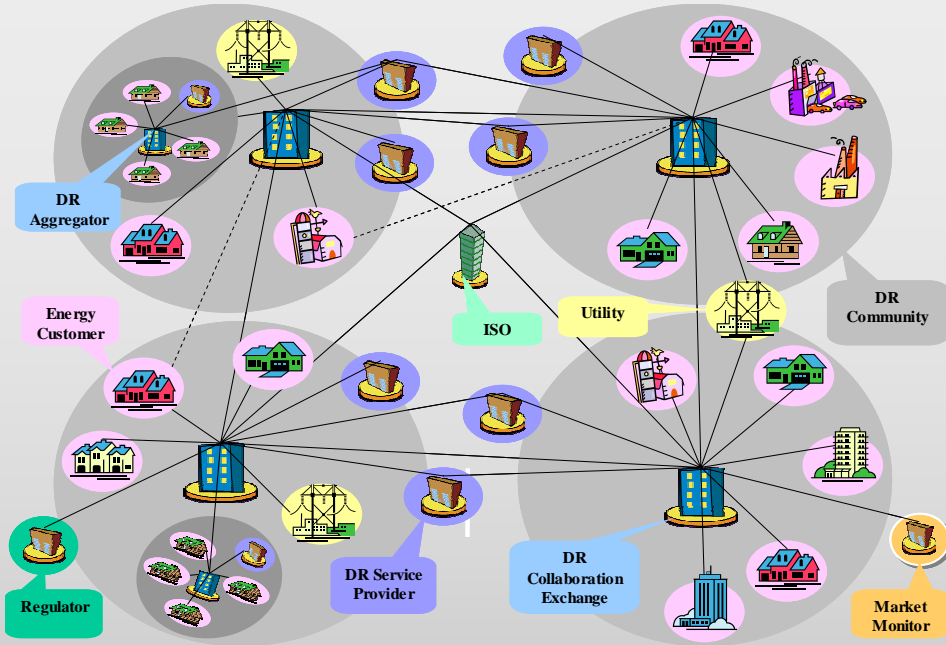
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VISION

Unleash DR potential in California by designing a flexible and intelligent DR Business Network (DRBizNet) based on open standards for data exchange and business process integration.

Wide scale adoption of DRBizNet architecture will facilitate an efficient electronic collaboration and transparent exchange of information between business entities in the California DR market.

RESEARCH QUESTIONS

METHODS

- Think through, conceptualize and design a suitable real-time demand response business network for California that is of sound IT infrastructure architecture and will accommodate future changes, multi-vendor non-discriminatory participation (interoperability), scalability, security and performance
- Conceptualize, design, develop and document DRBizNet architecture
- Develop a limited in scope, yet functional, demonstration of the DRBizNet
- Collaborate with CAISO, PG&E, SCE, and SEMPRA to develop use cases for a field demonstration

1. How to design an architecture that can accommodate:
 - a diverse array of evolving DR rates, tariffs and programs?
 - a diverse set of customers and service providers?
 - effective participation of residential customers?
 - protection of investments in existing DR systems?
2. What steps should be taken to build the DRBizNet?
3. Is it feasible to build such a business network?
4. What technologies can be used to build DRBizNet?

FINDINGS

- DRBizNet requirements are documented
- A service oriented architecture for DRBizNet is designed, including standard web services and intelligent agents
- An implementation Roadmap is designed
- A limited scope software demonstration was provided on April 20, 2005
- A phase report on DRBizNet is completed
- A field demonstration is being planned

