

Virtual Companies provide Real Services
(and real profits)

Toby Considine

Toby.Considine@unc.edu

www.NewDaedalus.Com

- Define each function in terms of the service it provides
- Occult all processes necessary to provide that service
- Expose each service using well-known abstract protocols that handle diversity and versioning well

- Each point energy source exposes live pricing described by an ontology of power generation
- Grid End Points expose abstract operations and wishes to Customer Faces
 - (homes, businesses)
- Distribution Grids enforce negotiated contracts with End Points and their Agents
- Customer Agents / Customer faces negotiate power purchases and set End-Point operating postures.
- No presumption of current business models

- Competes for Home Customer by Superior user interface and social positioning
- Discovers configuration changes in end-points using abstract discoverable interfaces
- Buys power to meet customer wants
 - Amenity
 - Autonomy
 - Self-Image

- Well off empty nesters with a social conscience.
 - Socially Green
 - Willing to pay for it
 - Do not want to pay attention to it.
- They read about a new service offered by their security monitoring company Lots-O-Alarms (LOA) offering Green Energy Management.

- Customers can select from a variety of programs:
 - Lowest Cost,
 - All Renewable,
 - Nearly Green (Renewable unless cost exceeds baseline by 15%)
- LOA contracts directly with a number of energy producers to provide an energy pool for each of its programs.

LOA Capabilities:

- directly reads the electric meters to get real time energy use rate throughout each day.
- re-uses existing internet connection to customer premises, installed for security alarm monitoring, to orchestrate services in each house.
- Probes network devices to learn of changes in house systems

- Select Energy Program to meet their needs and values
- Define in house priorities using LOA web site as often as they wish
 - Hot tub
 - Guests in for week-end
- Can be as involved or not as they wish

- Well off empty nesters with a social conscience.
 - Socially Green
 - Willing to pay for it
 - Do not want to pay attention to it.

- They read about a new service offered by their security monitoring company Lots-O-Alarms (LOA) offering Green Energy Management.
 - End Users make choices to enhance benefits, not just avoid cost.
 - Life-Style Choice
 - Cost Reduction is not only driving value
 - Requires “High Touch” responsive interface

 - Consumer Choice not Utility Commission Mandate

 - Open Interfaces to reduce friction between when customer makes changes to supplier relations

- Customers can select from a variety of programs:
 - Lowest Cost,
 - All Renewable,
 - Nearly Green (Renewable unless cost exceeds baseline by 15%)
- LOA contracts directly with a number of energy producers to provide an energy pool for each of its programs.
- Persistent Internet connectivity may already exist
- Enhanced Customer Choice drives acceptance
- GridWise provides underlying service framework for open markets in Energy

Customer Benefits

- Select Energy Program to meet their needs and values
- Define in house priorities using LOA web site as often as they wish
 - Hot tub
 - Guests in for week-end
- User Interface is external to architecture, so no standardization is required
- Tactics are dynamic without long term lock-ins to particular approach.

- Companies expose internal functions as services to other internal functions
- Companies optimize internal service provision using new surfaces.
- Companies now able to re-use defined surfaces to market internal expertise to competitors.
- Virtual Corporations come into being as unique and valuable combinations of existing services

LOA hopes to expand its offerings to support near-grid scenarios

- including local generation and storage of energy for some of its customers.
- Optimize performance and maintenance of customer systems.
- LOA is looking for higher premiums from both sides when it can
 - guarantee load shedding target in advance to producers
 - guarantee greater reliability to its customers.

LOA expands to support efficient and worry-free operation

- Bind existing customers to WS-based Building Analytics
 - Optimize performance and maintenance of customer systems.
- Bind Analytic reports to maintenance management system of local [REIT]
 - [REIT] Fuller use of existing management structure
 - [LOA] avoid additional staffing while building customer loyalty

- Virtual Corporations leveraging 3rd parties for enhanced system [performance]
- Process Control Optimizers driven by Government Regulation is not 1st choice for Customer Service
- Metcalf's Law
 - Network Power increases as the square of the number of nodes
 - Applies to Service Nodes as aptly as to Network Nodes

- No presumption of single business model
- Financial/IT players can enter fulfillment market
- Players with domain knowledge or unique process can expand their reach as service providers

Other SOA Scenarios...