Optimizing Business Architecture: Going from 0 to 60 in 12

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San Diego Gas and Electric Co.
SDG&E Overview

• 4,100 square miles of service territory in San Diego and southern Orange counties

• Serving 3.5 million electric and gas consumers

• 1.4 million electric meters and 850,000 natural gas meters

• 5,000 employees

• Regulated Investor-Owned Utility (Sempra Energy - SRE)
Unique Changes In Electric Utility Industry
The New Core Business:

- Smart Meters
- Smart Grid
- Competition from Self-Generation (# is doubling yearly)
- New Time of Use Rates
- Plug-In Vehicles

Is the Utility still out of sight, out of mind, unless there’s an outage or bill error?
Old Utility vs. New Utility
Non-Unique Changes and Challenges

Methods for 100+ Yrs
- Limited Market Segmentation
- Limited Services

Start/Stop Service
Paper Bills
Phone Center

Methods for the Last 5 yrs +/-
- Greater Segmentation
- Wider Services, especially w/ Web & Mobile:
  - Start/Stop Service
  - Paperless
  - Online Bill Pay
  - Notification Preferences
  - Text, Email
  - Set Bill Alerts
  - Outage Reporting
  - Proactive Outage Notifications
  - Estimated Restoration Times
  - Live Chat
  - Social Media
  - Specialized Customer Contact Center
It’s the Wild West
(and We’re Shooting from the Hip)

• **The Early Years:** 2008 – 2012 (Smart Meters installed beginning 2009)
  
  • New customer strategies were developed and implemented to meet the new reality
  
  • “Customer-centered design” efforts began 2008-9 with “customer experience” discussions, training for our execs and managers, program designers
  
  • These were new tools applied to the utility space while they had been utilized in other industries for great periods of time with great results

**Our Results:**

• Best in Class Customer Engagement (industry accolades)
• Innovative but ad-hoc efforts relied upon ad-hoc systems and support
• No cohesive plan to keep it sustainable
Initial BA Effort – One group, 3 months

• **Launched July of 2012 For Customer Programs Group**
  
  • New team identified too many and non-integrated IT systems/applications; we could foresee they were only going to multiply as our innovations and customer engagement kept growing (especially related to Big Data).

  • Accelare, Inc. – An initial, compact, time boxed engagement in Summer 2012 (8 weeks) to achieve:
    
    • To tightly align IT investments and activities with Customer Programs’ business vision and goals
    
    • Provide the decision framework, methods, and tools to ensure goal-aligned investment decisions
    
    • Identify near-term opportunities to reduce current business issues/pain (low hanging fruit)
    
    • Provide a foundational platform that can be enhanced over time to align and integrate the overall planning approach of the business vs. a one-off planning approach – Strategy To Execution.
Foundational Platform: Finding the Work that Matters

• **Capability Models used at SDG&E:**

  • a reference providing a common and shared understanding of the value stream of business capabilities needed to run an effective and efficient business; i.e., what work matters and what doesn’t is being determined (Accelare)

• **Formalize strategies and identify the capabilities** – Build The Model: Workshops, Discussions, 1X1 meetings to identify and then polish the ultimate model

• **Value Mapping** – Financial Impact/Customer Value

• **Heat Mapping** - Then, How Effective/Efficient Are We Doing the Work that Matters? The heat mapping/scoring shows what capabilities need attention
Observations:

- More “specialized” capabilities on an intra-departmental basis
- Focused model, less “breadth”
- Many low heat capabilities (especially with low financial impacts)

Surprises:

- Some “old utility” capabilities were still revered as bringing the most value, but it no longer held true. Let’s not gold plate the past with the wrong investment.
- Information Management & Support Operations Families accounts for half of the high-heat.
Results In 3 Months: September 1, 2012

- Clear, documented strategies for Customer Programs (and its 180 employees) (middle management, director level)

- A capability model adopted, with buy-in across the organization

- Capabilities rated by value (financial/customer impact)

- Capabilities assessed for performance (how efficient/effective)

- Gap analysis – what capabilities had high value, but were performing low

- Root causes of performance gaps were identified and analyzed

- Projects to fill those gaps identified

- Fall 2012 – Showed the value of the exercise in two very concrete ways:
  - Director incorporated high heat capabilities into his 2013 Managers’ goals
  - Incorporated into project planning immediately for 2013 capital expenditures.
Addressing the biggest hurdle: Model to Implementation

<table>
<thead>
<tr>
<th>ADVANTAGE</th>
<th>ROOT CAUSE</th>
<th>PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4. Program Design</td>
<td>To Be Done Fall '13</td>
<td>TBD</td>
</tr>
<tr>
<td>2.4.1 Program Innovation</td>
<td>To Be Done Fall '13</td>
<td>TBD</td>
</tr>
<tr>
<td>2.4.2 Program Alignment to Strategy</td>
<td>DR Summit</td>
<td>TBD</td>
</tr>
<tr>
<td>2.4.3 Market Research and Analysis for Program Design</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>2.4.4 Applying Segmentation to Program Design</td>
<td>To Be Done Fall '13</td>
<td>EECP/DRMS</td>
</tr>
<tr>
<td>2.4.5 Program Planning</td>
<td>EECP 1, 2</td>
<td>EECP/DRMS</td>
</tr>
<tr>
<td>2.6. Program Management</td>
<td>DRMS</td>
<td>EECP/DRMS</td>
</tr>
<tr>
<td>2.6.2. Program Enrollments</td>
<td>DRMS</td>
<td>EECP/DRMS</td>
</tr>
<tr>
<td>2.6.5 DR Event Management</td>
<td>DRMS</td>
<td>EECP/DRMS</td>
</tr>
<tr>
<td>4 Info Management and Reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3 Report Design, Creation, Modification for Info Presentment</td>
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</table>

Starting with the Areas that Provided the Most Value
By Dec 2013 – Complete the Process for the Five Remaining Groups in Customer Services

- Clarify strategic intent
- Identify operational capabilities
- Determine “strategic” capabilities
- Identify performance challenges
- Identify root causes
- Develop projects to close the gaps

*from Accelare, Inc.*

- Customer Programs/Projects
- Advanced Meter Operations
- Commercial and Industrial Services
- Customer Communications
- Customer Operations
- Residential Services
Identified By Accelare:

- Implementing more “systems” without addressing the core issues will exacerbate the current problems
- Lack of governance, accountability, & performance management are a major concern
- You can (and should) solve the foundational problems incrementally – **but make them a priority**
- Expect culture change to be a significant challenge
- 2013 will be a year of transition (and frustration)
- Senior management attention is critical to success
- **Customer Programs lacked these very foundational elements:**
  - Cohesive ongoing strategy development and management
  - Business-IT Governance
  - IT Portfolio Management (PMO)
  - Process Management Discipline
  - Information Architecture
  - Information Management
~$30M Approved For the Right CS Projects in 2014

- Ongoing, the CCRB uses Capabilities, IT Governance to approve changes
- Launched & Staffed a CS PMO in 2013
- Prioritize projects By Capabilities, Value, Heat
- Launched & Staffed a CS PMO in 2013
- 2 FTEs for all Customer Service (CS) Groups to start
- 1 FTE to maintain ongoing

- Inventoryed 77 systems
- Solution Architecture Reference Doc developed Summer ‘13
- 3-5 yr IT Roadmap
- Alignment to Business and Systems Architecture, IT Governance, Data Governance, Opportunity Analysis Tool

### Yearly Process Completed By Year End 2013

**Strategy Update/Capability Models Update**
- Value Mapping
- Heat Mapping
  (Dec – February)

**Launch Projects**
- Capability Models Used in Goal Setting
  (January)

**Root Cause Analysis**
- & Gap Analysis to ID Projects Needed
  (Spring)

**CapEx Review Process For Funding Projects**
- (Fall)

**Investment Roadmap Update/Business Case Development**
- (Summer)
Opportunity Analysis Tool
Technology Strategy Group

Opportunity Name: Vendor Solution for DR Programs

Opportunity Summary

Strategy Alignment - Vendor Solution for DR Programs

The strategy analysis explores and measures the opportunity's potential impact on the current set of strategies. Opportunities may affect one or more strategies or none at all. This assessment determines the degree to which the opportunity is required, supports, enhances, or even detracts from strategy realization.

In Column C, indicate how the project contributes to or achieves Strategy Alignment, by selecting from the dropdown:

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Know what the customer wants and design simple, value-added programs.</td>
<td>Inhibits or detracts from alignment</td>
</tr>
<tr>
<td>2. Match customers to the programs most suited to their needs.</td>
<td>Neutral - neither supports or detracts</td>
</tr>
<tr>
<td>3. Customize methods of communication to customer preferences, including two-way communication.</td>
<td>Minor support</td>
</tr>
<tr>
<td>4. Utilize an accessible, holistic view of the customer to design, market, and evaluate programs based on customer behavior.</td>
<td>Neutral - neither supports or detracts</td>
</tr>
</tbody>
</table>

Normalized Scores (1-5)

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>1.7</td>
</tr>
<tr>
<td>Capability</td>
<td>2.0</td>
</tr>
<tr>
<td>Operational</td>
<td>2.5</td>
</tr>
<tr>
<td>Risk</td>
<td>1.6</td>
</tr>
<tr>
<td>Customer</td>
<td>0.6</td>
</tr>
<tr>
<td>Regulatory</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Operational Impact - Vendor Solution for DR Programs

The operational impact analysis looks at the opportunity from an internal operational viewpoint. The analysis takes into account how the opportunity impacts both the efficiency and effectiveness of current company operations.

Please rate the project's impact on business efficiency:

<table>
<thead>
<tr>
<th>Level of Impact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor efficiency support</td>
<td>Minor business efficiency support.</td>
</tr>
</tbody>
</table>

Please rate the project's impact on business effectiveness:

<table>
<thead>
<tr>
<th>Level of Impact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor effectiveness support</td>
<td>Minor business effectiveness support.</td>
</tr>
</tbody>
</table>

Customer Impact - Vendor Solution for DR Programs

The customer impact analysis looks at the opportunity form an external viewpoint. The analysis explores the breadth of customer impact; i.e., how many customers would be impacted by the opportunity, as well as the depth of customer impact, as in the degree it changes something in their lives.

Please rate the project's impact on the breadth of customers (number of customers):

<table>
<thead>
<tr>
<th>Level of Impact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral - neither supports or detracts from customer breadth.</td>
<td>Neutral - neither supports or detracts from customer breadth.</td>
</tr>
</tbody>
</table>

Please rate the project's impact on customer depth (impact to individual customer):

<table>
<thead>
<tr>
<th>Level of Impact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhibits or detracts from customer depth.</td>
<td>Inhibits or detracts from customer depth.</td>
</tr>
</tbody>
</table>
New Norms In Our Conversations
Reflect the Culture Change

• “What capabilities is it trying to serve, and are they already served elsewhere? (Goal: reduce redundant systems)”

• “Are the business capabilities that project is intended to serve in need of attention?” (Goal: finding the work that matters)

• “Are you “gold plating” again?”

• “Where is that project idea on our Solution Architecture Roadmap?”

• And my favorite:

  “Do less.”
Some of the Takeaways

• It’s possible in one year: to build a business architecture from the ground up, to drive project decisions from a rational alignment to strategy and an IT architecture roadmap; to build in governance and to staff it appropriately.

• Key Components:

  □ The most obvious one: we had the will to do it.

  □ Early successes demonstrated value & hard benefits; found further hard benefits as the year progressed.

  □ Early & often communication across various sectors and management strings: Exec briefings, staff meetings, roadshows, presentations, all in order to manage change, to tout the benefits and opportunities.

  □ Buy-in at all levels by the end of the year, but it wasn’t necessary at the start. Early successes showed value, and the buy-in expanded.

  □ Identified champions and leveraged them as we went.

  □ Increased where and how business architecture could be used as we learned (goal setting, staffing, budget planning, regulatory reporting, etc.). Make business architecture a “Best Practice” you’re sharing with new audiences.
Questions?
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