State IT, the Forces of Change and the Need for IT Procurement Reform

State Procurement Laws Interim Committee
October 27, 2016

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National Association of State Chief Information Officers (NASCIO)
About NASCIO

- National association representing state chief information officers and information technology executives from the states, territories and D.C.

- Founded in 1969

- NASCIO's mission is to foster government excellence through quality business practices, information management, and technology policy.
States fiscally stable. CIOs still seeking IT operational **cost savings**, driving consolidation.

**Cybersecurity risks!** New threats, organizing for success, funding not commensurate with risk, talent crisis.

**Ongoing Transition:** Changing the owner-operator business model - systems-centric to technology as a service.

Continuing IT **workforce** retirements, skills gap, recruiting challenges, talent management.

Investments in **cloud services**, mobile, data analytics.

Alternative **sourcing** options, IT procurement challenges, agile approaches.
## Top Ten: State CIO Priorities for 2016

1. Security
2. Cloud Services
3. Consolidation/Optimization
4. Business Intelligence & Data Analytics
5. Legacy Modernization
6. Enterprise Vision and Roadmap for IT
7. Budget and Cost Control
8. Human Resources/Talent Management
9. Agile and Incremental Software Delivery
10. Disaster Recovery/Business Continuity

Source: NASCIO State CIO Ballot, November 2015
The Forces of Change

- Service models and sourcing options
- Adoption of cloud services
- Power of data
- Changing state IT workforce
2016 State CIO Survey
## Business Models, Sourcing and the CIO as Broker

What business models and sourcing strategies does your state CIO organization currently use?

<table>
<thead>
<tr>
<th>What business models and sourcing strategies does your state CIO organization currently use?</th>
<th>2010</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owns and operates all state IT assets and operations</td>
<td>32%</td>
<td>30%</td>
<td>31%</td>
</tr>
<tr>
<td>Owns and operates multiple data centers</td>
<td>58%</td>
<td>53%</td>
<td>54%</td>
</tr>
<tr>
<td>Owns and operates a consolidated data center</td>
<td>55%</td>
<td>64%</td>
<td>68%</td>
</tr>
<tr>
<td>Outsources some of its IT infrastructure operations</td>
<td>58%</td>
<td>58%</td>
<td>69%</td>
</tr>
<tr>
<td>Outsources some of its IT applications and services</td>
<td>42%</td>
<td>79%</td>
<td>79%</td>
</tr>
<tr>
<td>Uses a managed services model for some or all IT operations</td>
<td>50%</td>
<td>55%</td>
<td>63%</td>
</tr>
<tr>
<td>Uses an IT shared services model for some or all IT operations</td>
<td>66%</td>
<td>83%</td>
<td>74%</td>
</tr>
</tbody>
</table>
## Trending: IT Services over the Next Three Years?

<table>
<thead>
<tr>
<th>How does your state CIO organization plan to deliver or obtain IT services over the next three years?</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand existing IT shared services model</td>
<td>62%</td>
<td>72%</td>
</tr>
<tr>
<td>Outsource business applications through a SaaS model</td>
<td>55%</td>
<td>66%</td>
</tr>
<tr>
<td>Expand existing managed services model</td>
<td>53%</td>
<td>61%</td>
</tr>
<tr>
<td>Downsize state-owned-and-operated data center(s)</td>
<td>49%</td>
<td>28%</td>
</tr>
<tr>
<td>Expand outsourcing</td>
<td>43%</td>
<td>45%</td>
</tr>
<tr>
<td>Introduce a managed services model</td>
<td>26%</td>
<td>17%</td>
</tr>
<tr>
<td>In-source some operations that currently are outsourced</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td>Introduce outsourcing as a new service model</td>
<td>15%</td>
<td>17%</td>
</tr>
</tbody>
</table>
Where applications have been migrated to the cloud, what percentage of the applications are hosted in each of the following models?

<table>
<thead>
<tr>
<th>Model</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIVATE: Hosted by a single organization and made available to other government users</td>
<td>51%</td>
<td>46%</td>
</tr>
<tr>
<td>PUBLIC: Hosted by a third-party entity and openly available</td>
<td>25%</td>
<td>15%</td>
</tr>
<tr>
<td>COMMUNITY: Used by a specific community of organizations with a shared purpose</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>HYBRID: A composition of two or more of the above</td>
<td>16%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: NASCIO 2016 State CIO Survey
To what extent do you see your CIO organization migrating from a direct provider of services to a ‘broker’ of services, where you would source a mix of services from multiple providers and coordinate the provision of these services to your customers?

- 85%: We already function primarily as a broker of services
- 11%: We see ourselves in the future migrating to primarily a broker of services
- 4%: We see ourselves in the future being a broker for some services while continuing to directly provide other services

Source: The Value Equation, 2015 State CIO Survey
## Agile and Incremental Software Delivery

**How would you characterize the use of Agile or incremental software development approaches within your state?**

<table>
<thead>
<tr>
<th>Characterization</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited use, uncoordinated</td>
<td>34%</td>
<td>19%</td>
</tr>
<tr>
<td>Pilot/trial adoption on certain projects</td>
<td>32%</td>
<td>39%</td>
</tr>
<tr>
<td>Widespread use, but not subject to centralized oversight or guidelines</td>
<td>21%</td>
<td>19%</td>
</tr>
<tr>
<td>Widespread use, subject to centralized oversight or guidelines</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>No use</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Do not know/does not apply</td>
<td>2%</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Do you anticipate increased use of agile or incremental software development approaches in your state within the next 12-24 months?**

- **Yes**: 81%
- **No**: 15%
- **Don’t Know**: 4%
Forces of Change: Why Cloud?

- Cost savings and efficiency
- Flexibility and scalability
- Rapid provisioning
- Measured service
- Better data security?
- Shift from capital spend to operating spend
- Reduced IT staffing and administration costs

This transition is disruptive to the traditional notions of state IT. It has serious implications for state budgeting, procurement, legal, business processes, project and portfolio management.
What is your State's status regarding Cloud Services?

- 83% The State is already highly invested in Cloud Services
- 4% The State has some applications in the Cloud and is considering others
- 2% The State is still investigating Cloud Services
- 11% Other

Source: The Value Equation, 2015 State CIO Survey
Does your organization have a "cloud first" preference when considering new applications or looking to upgrade existing legacy systems?

- Yes, formal policy has been implemented: 17%
- Yes, but informal and on a case-by-case basis: 37%
- No, but developing formal policy: 17%
- No, not planning any such preference: 27%
- Don’t know/not applicable: 2%

Source: NASCIO 2016 State CIO Survey
IT Procurement: State CIO Perspectives
How satisfied are you with the current system of IT procurement in your state?

- Very satisfied: 4%
- Very dissatisfied: 13%
- Moderately dissatisfied: 34%
- Neutral: 15%
- Moderately satisfied: 34%

Source: The Value Equation, 2015 State CIO Survey
IT Procurement: State CIO Perspectives

What state IT procurement reforms have been the most effective in your state?

- Adding flexibility to terms and conditions
- Centralization of IT procurement under a single authority
- Use of cooperative or multiple award purchasing agreements
- Improved communication and interaction with the vendor community
NASCIO Call to Action: Recommendations for Improved State IT Procurement

- Remove unlimited liability clauses in state terms and conditions
- Introduce more flexible terms and conditions
- Don’t require performance bonds from vendors
- Leverage enterprise architecture for improved IT procurement
- Improve the negotiations process

Source: NASCIO Call to Action, Feb 25, 2016. www.nascio.org/procurement