State-of-the-States 2017: Infrastructure Consolidation and Optimization

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Doug Robinson, NASCIO Executive Director

About NASCIO

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

- NASCIO's mission is to foster government excellence through quality business practices, information management, and technology policy.

- NASCIO provides members with products and services designed to support the challenging role of the state CIO, stimulate the exchange of information, and promote the adoption of IT best practices and innovations.

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2017 budget cuts in many states.Budgets for FY 2018 remain cautious – 1% growth. CIOs pressured to find **cost savings,** driving consolidation, optimization strategies.

Continued evolution from the **owner-operator** business model for CIOs – focus on services and hybrid models of delivery

Cybersecurity as a **business risk.** Ransomware, hacktivism and evolving threats. Enterprise strategy, communication and talent

Growing investments in **cloud services**, data analytics, mobile

Advocating for IT **modernization**, agile approaches, procurement reform
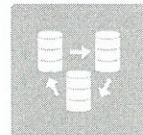
Continuing IT **workforce challenges:** retirements, skills gap, recruiting, talent management, workplace innovation

Top Ten: State CIO Priorities for 2017
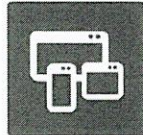
1. Security
2. Consolidation/Optimization
3. Cloud Services
4. Budget and Cost Control
5. Legacy Modernization
6. Enterprise IT Governance
7. Data Management and Analytics
8. Enterprise Vision and Roadmap for IT
9. Agile and Incremental Software Delivery
10. Broadband/Wireless Connectivity

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Source: NASCIO State CIO ranking, November 2016

State CIO Top Ten Priorities for 2017

November 2016

Top Ten Strategies, Management Processes and Solutions

1. **Security and Risk Management:** governance; budget and resource requirements; security frameworks; data protection; training and awareness; insider threats; third party security practices as outsourcing increases; determining what constitutes "due care" or "reasonable"

2. **Consolidation/Optimization:** centralizing, consolidating services, operations, resources, infrastructure, data centers, communications and marketing "enterprise" thinking, identifying and dealing with barriers

3. **Cloud Services:** cloud strategy; proper selection of service and deployment models; scalable and elastic IT-enabled capabilities provided "as a service" using internet technologies; governance; service management; service catalogs; platform; infrastructure; security; privacy; data ownership

4. **Budget, Cost Control, Fiscal Management:** managing budget reduction; strategies for savings; reducing or avoiding costs; dealing with inadequate funding and budget constraints

5. **Legacy modernization:** enhancing; renovating; replacing; legacy platforms and applications; business process improvement

6. **Enterprise IT Governance:** enterprise IT policy and planning; improving IT governance; partnering; inter-jurisdictional collaboration; industry advisory boards; legislative oversight-achieving proper balance; agencies participating as members of a "state enterprise"

7. **Data Management and Analytics:** data governance; data architecture; strategy; business intelligence; predictive analytics; big data; roles and responsibilities

8. **Enterprise Vision and Roadmap for IT:** vision and roadmap for IT; recognition by administration that IT is a strategic capability; integrating and influencing strategic planning and visioning with consideration of future IT innovations; aligning with Governor's policy agenda

9. **Agile and Incremental Software Delivery:** iterative design and incremental development of software solutions; allows for design modifications, prototyping and addition of new capabilities as part of the development process

10. **Broadband/Wireless Connectivity:** strengthening statewide connectivity; implementing broadband technology opportunities

Consolidation has been on the State CIO Top Ten Priorities list consistently since 2006

May 2006

NASCIO's Survey on
IT CONSOLIDATION
SHARED SERVICES IN THE STATES
A National Assessment
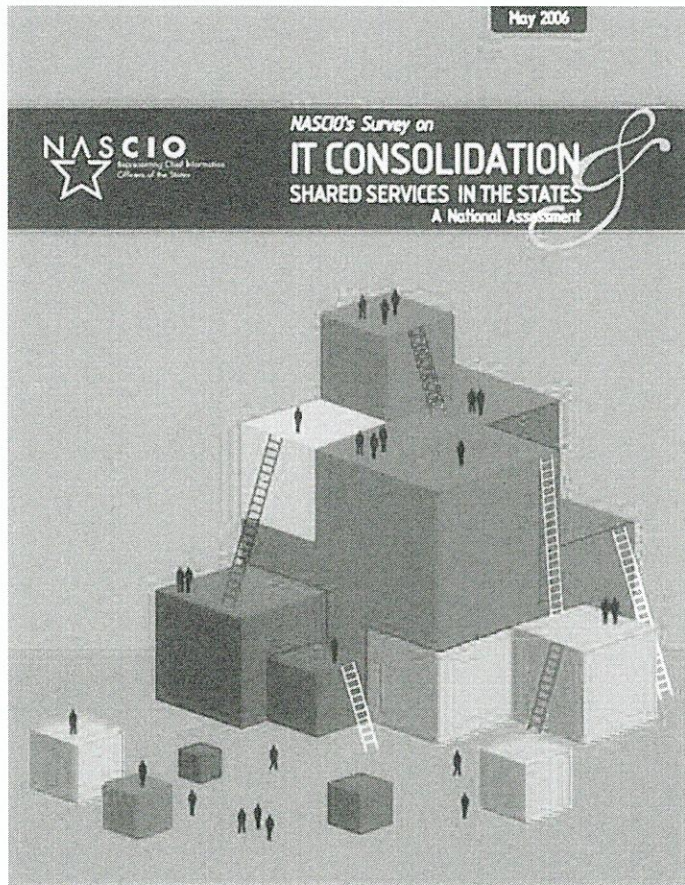
Key Findings:

"strong trend towards states consolidating key IT functions and utilizing the shared services model whenever applicable."

"most consolidation initiatives were begun in the state CIO's offices in tandem with either the governor's office or the state legislature."

Targets of Enterprise Consolidation

- Data Centers
- E-mail/Collaboration
- Telecom/Networks
- Servers
- Storage
- Desktops
- Content Management
- Security
- Help Desk
- Software Licenses
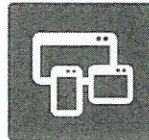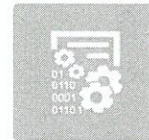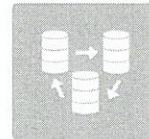
- Disaster Recovery/Back Up
- Automation Tools
- Application Development
- Business Intelligence/Analytics
- Project Management
- Imaging/Archiving
- Mobile Device Management
- Identity Management
- Contracts
- IT Staff

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Rationale for IT Consolidation

- Reduce diversity and complexity of environment – cost savings
- Economies of scale – reduce operational costs
- Strengthen IT security
- Promote enterprise integration and applications
- Introduce process standards: ITIL and ITSM
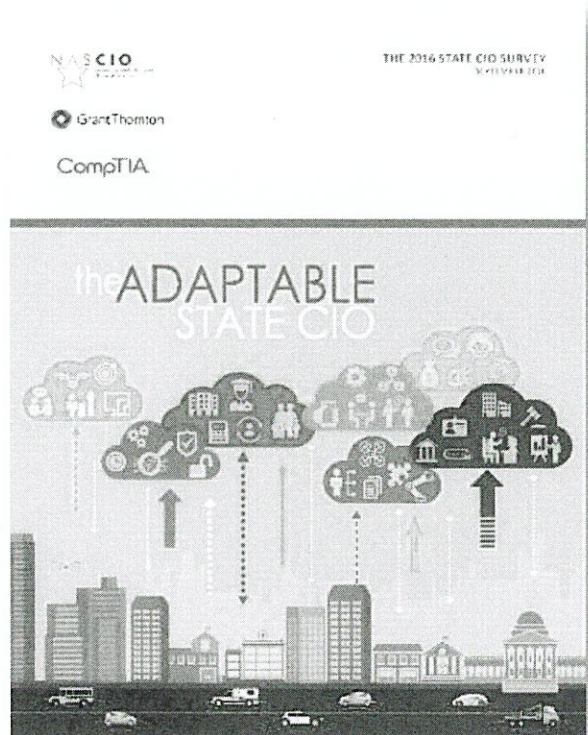- Improved support for legacy systems
- Centralize infrastructure maintenance and upgrades
- Improve disaster recovery/business continuity
- Reinvestment of spend to services
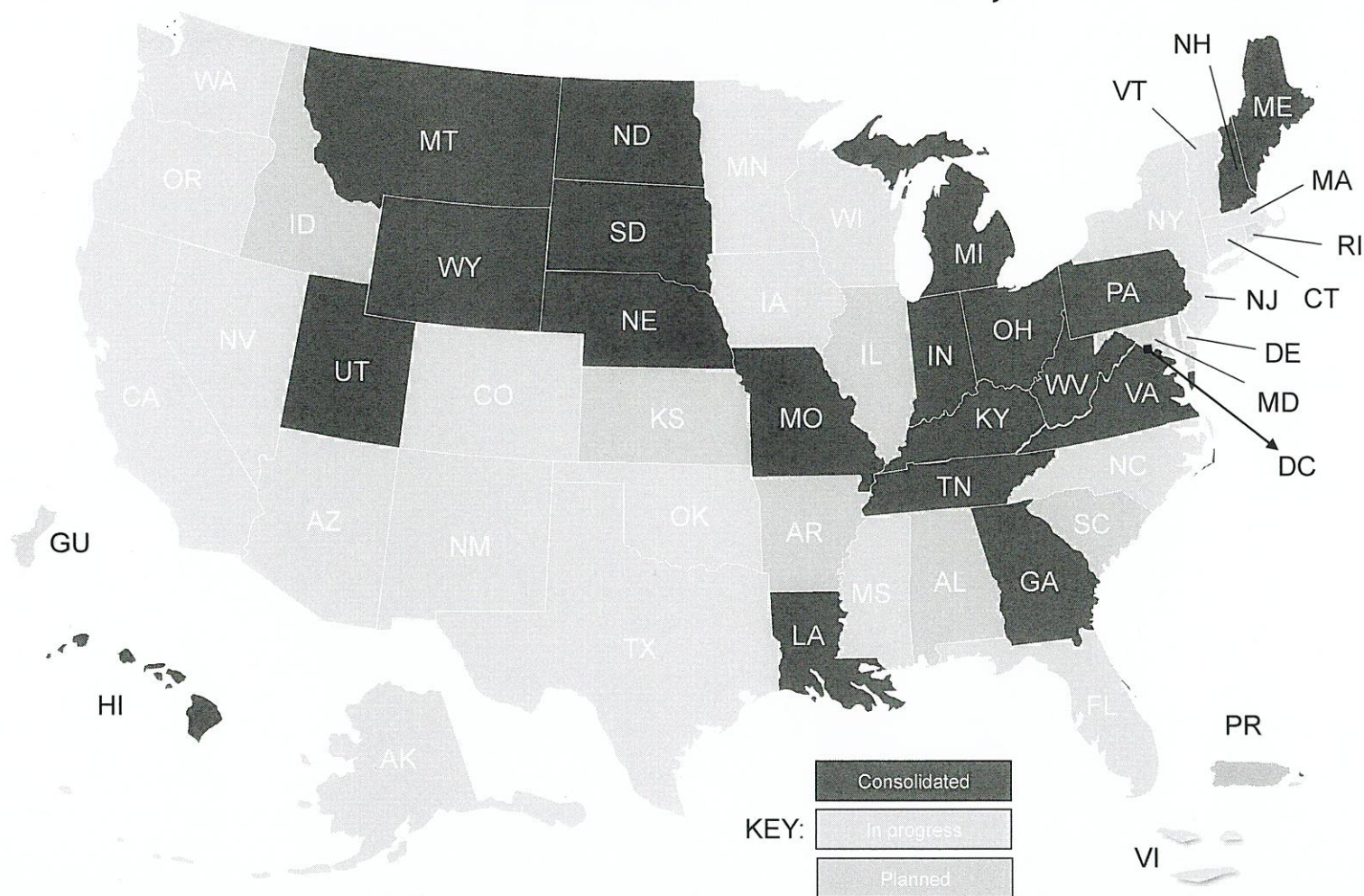
Status of Infrastructure Consolidation

THE 2016 STATE CIO SURVEY

NASCIO
GrantThornton
CompTIA

the ADAPTABLE STATE CIO

	2016			
	DONE	ONGOING	PLANNED	DK/DNA
Backup/disaster recovery	32%	52%	13%	3%
Business applications	15%	44%	13%	25%
Content management	21%	42%	13%	26%
Data centers	42%	47%	11%	0%
Desktop support	31%	37%	20%	12%
Email	59%	35%	6%	0%
Imaging	19%	42%	12%	27%
Security	31%	56%	9%	4%
Servers	31%	65%	4%	0%
Staff	29%	33%	15%	24%
Storage	35%	54%	11%	0%
Telecom	57%	35%	7%	0%
Helpdesk	38%	28%	17%	17%
Mobile device management	37%	30%	20%	13%
Identity and Access Management	30%	39%	26%	5%
Data Warehouse/ BI/ Analytics	8%	40%	30%	22%
Project Management Office	39%	30%	17%	15%
State Portal	48%	36%	9%	7%

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Enterprise Data Center Consolidation

Source: NASCIO 2016 State CIO Survey

KEY:
- Consolidated
- In progress
- Planned

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Challenges to Consolidation Initiatives

Agency/workforce resistance to change

Lack of funding/investment to prepare for consolidation

Agencies desire to remain autonomous

Problems moving infrastructure from the agencies

Backlash when consolidation doesn't meet agency business needs

Higher than projected costs

Seeking exemptions from federal statutory and regulatory requirements

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State of Ohio Story:
Consolidation, Optimization, Collaboration

2011: 32 data centers spread across 26 cabinet agencies, over 9,000 servers, and 19 different email systems

Data center had not been updated in 20 years

Consider: buy-in from stakeholders? How to finance? Work with private sector?

IBM is private partner: $267 million, 10-year contract

Savings to state: $100 million+ to date

Tenants: The Ohio State University, Cuyahoga County – each see savings in millions (avoid capital investment + yearly savings)

Critical Success Factors

Strong support from the Governor

Establishing trust with stakeholders

Effective governance model with a shared vision

Choosing the correct implementation strategy to ensure buy-in

Workforce impact - motivating staff through the transition

The Success Playbook

Have a plan - defined process with gap analysis

Document the "as is" - baseline of assets

Spend analysis: capture the known costs; hidden costs

Create aggressive roadmap with reasonable milestones

Establish a governance structure for shared decision-making

Engage the agency stakeholders early

Constant communication – expect resistance

Address federal cost allocation

Re-negotiate existing contracts

Manage expectations and expect surprises

Capture and report cost savings