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Representing Chief Information Officers of the States

The CIO Operating System: Managing Change in a Sustainable Way

Sponsored by the NASCIO Enterprise Architecture & Governance Committee

Collaboration MOU

NASCIO Representing Chief Information Officers of the States

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NASCIO/Integris Applied Collaboration MOU:

The CIO Operating System: Managing Complexity in a Sustainable Way

Approved by NASCIO Executive Committee on January 11, 2018

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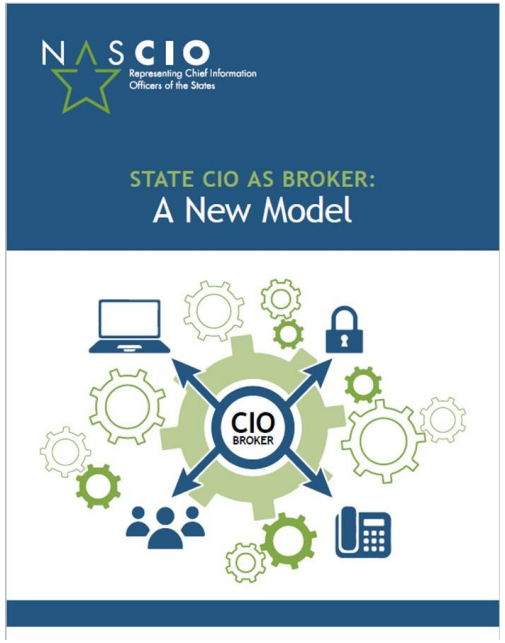
Agenda

Objective: Gain insights into state government delivery platforms, best practices, and advice for other states. Our discussion will be used as an important reference for NASCIO's first version "CIO Operating System" playbook, NASCIO Online Community blogs, and NASCIO short reports on the subjects of multi-sourcing, CIO as broker and leading change. The playbook will be released after NASCIO's Annual Conference. Blogs and short reports will be published throughout the program year as a lead up to the final report.



We plan to cover the following topics:

- Project Overview and Intended Outcomes
- Review project framework
- Four forces of government change
- Review services maturity model

Project Purpose

"This initiative will delve deeper into trends that are defining the CIO role and will help CIOs, governors, budget directors, procurement officers, legislators, and other policy makers integrate the state technology function into government operations in a more strategic manner.

Under the owner/operator model the State CIO was once seen as primarily the purveyor of hardened data centers, networks and incident response. Today's technology organization is now viewed as a business partner playing a strategic role in a State's agenda. Collaboration, communication skills and business acumen are now the State CIO attributes sought by governors, high level policy makers, and legislators. Engaging with customers and understanding the needs of business units delivering products and services defines a CIO's ability to deliver outcomes." - *Project Charter/MOU, January 11, 2018*

This study will help CIOs build an "Operating System" to support their role as leaders within the state government enterprise. It will discuss skills, capabilities, and toolsets needed to help CIOs navigate the integration and delivery of services and solutions within their organization, and how to use that platform to improve the citizen experience.

Hypothesis

- Customer, political, market and inertial forces are moving state government CIOs towards a ”brokerage of services” delivery model. A “Brokerage” model allows the CIO the ability to respond to customer needs, keep pace with market demands, leverage new technology models and engage across stakeholder groups. The evolving demands on the role require a framework to help a CIO lead and manage change within a political environment, and to help stakeholders understand the CIO leadership role.

2017 State CIO Survey

"The role of a CIO and which business models support that role vary widely across state governments. Since first asking about these topics in 2010, *responses have shown a consistent trend of moving towards CIOs operating as a business manager or broker of services* as opposed to an owner and operator of assets. More and more states are using shared services models for their IT operations.

When asked how CIO organizations plan to deliver or obtain IT services over the next three years, *responses support the idea that CIOs are continuing to shift the business model in order to implement more shared services, managed services and outsourcing operations*.

States are continuing to examine *how a CIO should operate*, and the general consensus is that more than half of the states are downsizing state owned and operated data centers and expanding outsourcing. The trends show that the dominant business model across state government is one of a CIO organization operating as a shared services broker that leverages managed services and outsourcing to deliver on their service portfolio."

How does your state CIO organization plan to deliver or obtain IT services over the next three years?

	2015	2016	2017
Introduce an IT shared services model	6%	13%	19%
Expand existing IT shared services model	62%	72%	60%
Downsize or scale back existing IT shared services model	0%	2%	5%
Introduce a managed services model	26%	17%	21%
Expand existing managed services model	53%	61%	55%
Downsize or scale back existing managed services model	2%	2%	5%
Introduce outsourcing as a new service model	15%	17%	33%
Expand outsourcing	43%	45%	45%
In-source some operations that are currently outsourced	17%	19%	17%
Downsize or scale back outsourced operations	0%	8%	2%
Outsource business applications through a SaaS model	55%	66%	52%
Downsize state-owned-and-operated data center(s)	59%	28%	55%

2015 State CIO Survey

The 2015 NASCIO Annual CIO Survey presents that 85% of state CIOs see themselves as a “broker” of some services, delivering solutions that must integrate multiple offerings, platforms, suppliers and the CIO’s own internal organization.

16% of respondents either already operate *primarily* as a broker of services or see themselves migrating to *primarily* a broker of services.

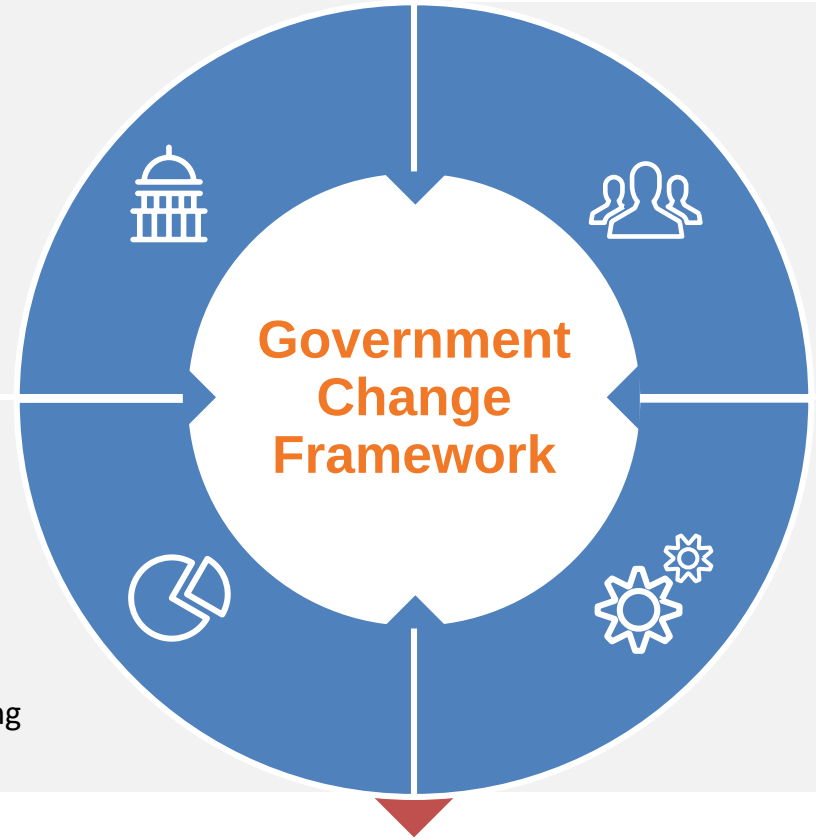
Four Forces of Government Change

Political Forces

- Executive support
- Legislative support
- Budget demands
- Election cycle timing
- Policy changes
- Supplier political strength

Customer Forces

- Customer maturity
- Transparency, effectiveness, and sustainability of current services
- Currency of services
- Internal expertise
- Workforce status



Market Forces

- New service availability
- Supplier effectiveness
- Internal capabilities
- Service offerings
- Consumption models
- Client/supplier understanding

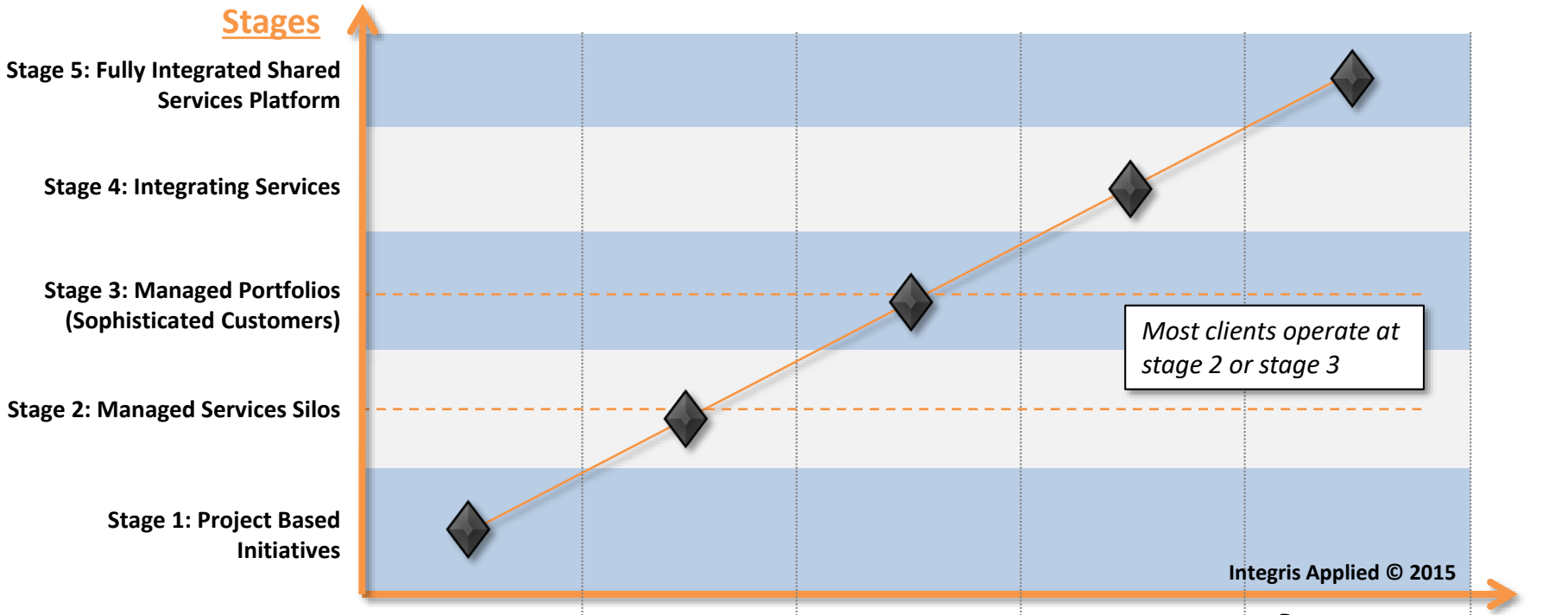
Inertial Forces

- Organizational design
- Procurement practices
- Delivery processes
- Legislative processes
- Governance bodies
- Resistance to change
- Demographics

Change Principles

- Decisions are made with the citizen in mind
- Sustainable learning environment that can adapt
- Can balance enterprise and agency interests
- Effective use of taxpayer dollars

Integris Applied Services Maturity Model



Key Characteristic	• Tactical & Unit price based	• Outcomes pricing • Intro multi-supplier environment	• Process alignment • Increasingly complex multi-supplier environments	• Process integration • Intro Plug & Play capability	• Process optimization • True Plug & Play capability
Goal / Benefit	• Immediate technology needs	• Quality and price control	• Efficiency and productivity gains	• Unlock 2nd level cost savings • Next level quality control / productivity	• Flexibility • Cost and quality maintenance

Maturity Definitions

Stage 1: Project Based Initiatives. A Stage 1 organization is tactical, reactive and focused on unit based pricing (things vs. services). Services provided to customers are not governed with well defined SLAs, do not use RU based pricing and remain static over time. The organization is considered overhead and is not included in strategic planning.

Stage 2: Managed Services Silos. A Stage 2 organization is moving to a services based delivery model, is implementing best in class solutions and beginning to integrate multiple technology suppliers. Service quality can be measured and pricing is becoming more transparent. Customers & end users have little engagement in service delivery and/or governance. The organization is considered overhead but is building a capability to communicate technology's value to stakeholders and decision makers.

Stage 3: Managed Portfolios. A Stage 3 organization is beginning to align processes (i.e. ITIL) across a suite of services and suppliers. Service Levels are defined, measured and used to define performance. Governance forums exist to resolve service issues and manage supplier relationships. Customers & end users are engaged in the governance processes. The organization has strong relationships with executive and legislative stakeholders, and has a voice at the policy setting table.

Stage 4: Integrating Services. A Stage 4 organization has formal delivery processes integrated across multiple suppliers. These processes are measured and accountability is assigned based on the owner of a process. A Stage 4 organization employs Operating Level Agreements (OLAs) to improve transparency and to define accountability for all parties, including the end user, across delivery processes. Governance forums exist to resolve issues and disputes and designed for decision making at the lowest level possible. The organization is sometimes asked to collaborate with agencies on strategic initiatives. The organization enables the CIO to influence policy, strategy and the implementation of the state's priorities.

Stage 5: Fully Integrated Shared Services Platform. A stage 5 organization has optimized delivery processes and continuous improvement activities. Operational governance forums enable decision making at the lowest level possible and relational forums are focused on innovation and new services. "Plug & Play" is possible through continual market testing and the qualification of multiple services for use by agencies. The organization enables the CIO to serve as the facilitator for government's digital transformation. Agencies view the organization as a partner and seek its help in the execution their mission statements. The CIO has established forums and relationships that allow him or her to manage the four forces for government change and to serve as a leader and change orchestrator throughout government.

Ratings Table

Cost Accountability & Currency	Access to Technology Choices	Operational Competence	Control & Flexibility	Change Capability
Continual Market validation	Unlimited rights to substitution	Organization designed to manage multiple services & governance	Well defined rule-set	Agreed method for equitable adjustments between parties
Current prices, terms & conditions	Multiple service providers engaged in a shared delivery framework	Process alignment (SMM to OLA to SLA to OLM)	Mature decision making forums	Forums for change coordination and management
Competitive outcomes adopted	Defined and adopted Technology Architecture	Regular process review and improvement	Service element 'plug & play' rights and processes	Mature processes for realignment and integration
Variable price/volume	Active user engagement in framing Supply & Demand	Shared reporting in a multi-party context	Active Performance Management & Reporting	Repeatable method for adoption and revisions to baselines and goals
Accurate & verifiable charging	Accurate environmental records - CMDB	Shared service levels for documented interdependencies	Effective Dispute Management and remedies	Forums for Stakeholder engagement and impact validation

Category Definitions

- **Cost Accountability & Currency:** The organization can connect the cost of providing a service with the the price it charges for that service, and can communicate those connections with customers. Pricing for services is compared against the market frequently, ideally through a continuous process of market testing and rebids. Pricing is based on consumption and the customer can affect charges with increased and decreased use.

- **Access to Technology Choices:** The organization can provide its customers with multiple services and multiple platforms. Enterprise solutions are viewed by agencies as viable and competitive offerings. A "plug & play" capability allows the organization to help a customer change services quickly, can apply enterprise resources to support agency innovation, and allows the efficient integration of new suppliers into the delivery platform. New procurements are managed in a timely manner, and the organization is developing a qualified portfolio of services and suppliers from which customers can choose. End users are engaged in defining supply and demand for services provided by the organization.

- **Operational Competence:** The organization has functions dedicated to service management and vendor management (aka SMO, CMO and VMO). These organizations manage mature operational governance processes (i.e. ITIL) and forums to drive decision making, maintain service level and operational level agreements and are empowered to make decisions about service delivery. Shared service levels define accountability for all parties. Outcomes, including business outcomes and KPIs are communicated to stakeholders and customers are engaged in the governance to improve services. The SMO and VMO are aligned with procurement teams and lead procurements for relevant application of technologies.

- **Control & Flexibility:** The organization has contractual structures that anticipate changes and governance forums designed for all parties (customers, suppliers & other stakeholders) to communicate changes and challenges with the delivery of services. Expected outcomes (i.e. transition plans, service levels, etc) and consequences for missing those outcomes are documented and agreed to by all parties. Governance processes define how service agreements can change. A Service Management Manual defines all services and processes and is maintained by the organization with support from suppliers and customers.

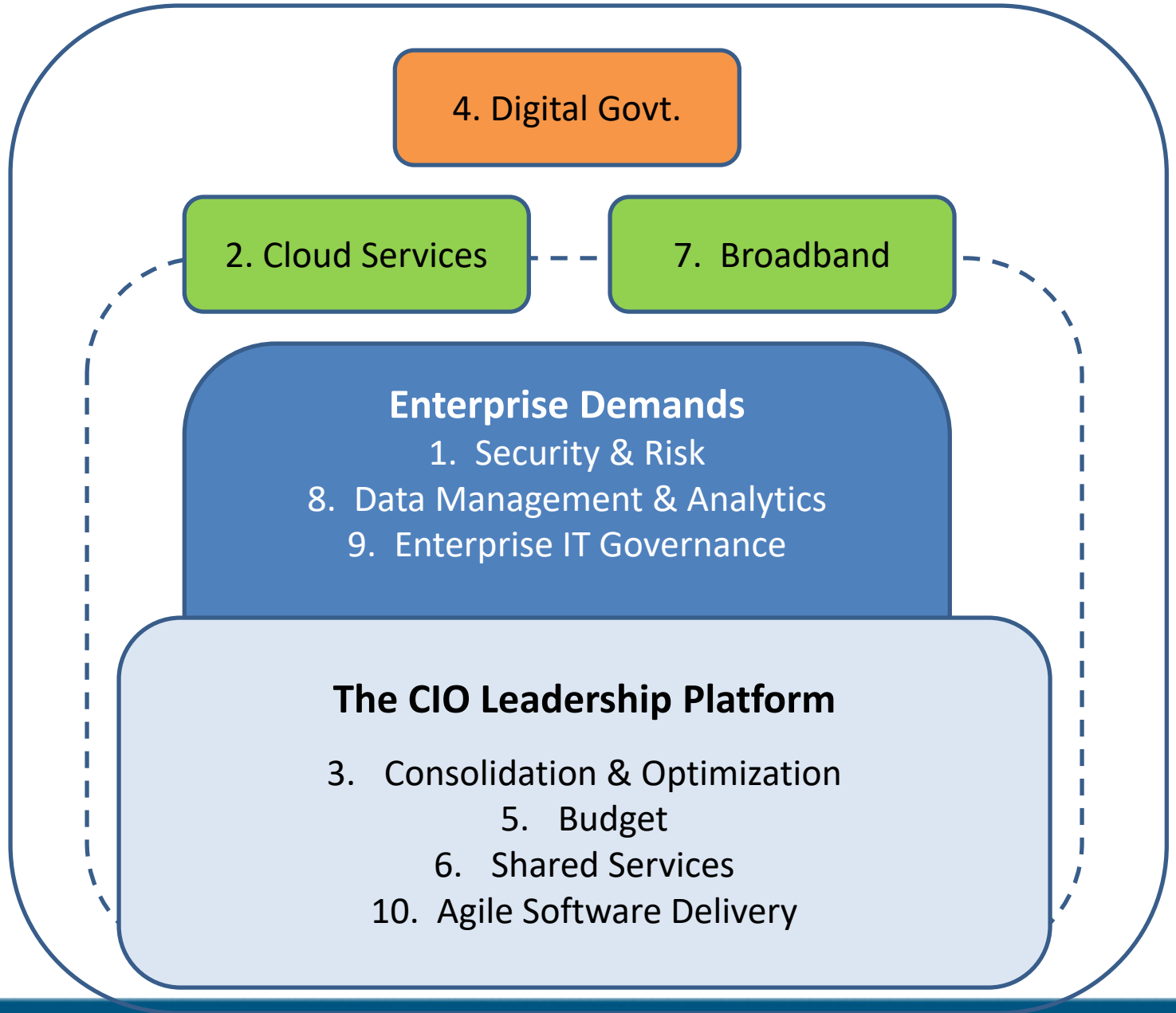
- **Change Capability:** The organization maintains documented processes to change the terms of service agreements and the outcomes of those agreements. The processes also describe the manner in which services are added or removed from the Service Management Manual (SMM). The organization is forward looking, anticipates new technologies and uses relational governance processes to measure customer needs for new services.

Role & Attributes

Role Model	Attributes
CIO as Broker	• Empowering • Engaging • Leading
CIO as Architect	• Influencing • Collaborating • Executing
CIO as Administrator	• Tactical • Project oriented • Technical

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Role of the CIO	**ADMINISTRATOR**		**ARCHITECT**	**BROKER**	
Value Delivered (As perceived by the Governor, Legislature and Agencies)	Keeping the lights on	Adopting best in class "point solutions"	Responsive to Legislative agenda and Agency needs Delivers critical technology services and meets SLAs	Leads the State's Digital Transformation	Partner with agencies, legislature & governor on technology strategy & policy; viewed as a change agent able to improve service for citizens.
Cost Accountability	Limited connection between cost and price. Limited visibility into pricing rational.	Transition from input based (FTE) pricing to Outcome based (RUs) pricing	Consumption based pricing (true variability). Agencies' fees based on actual consumption.	Qualified recurring competition drives continuously contemporary pricing.	Real time market based pricing driven through a platform of technology partners.
Technology Access	Only basic services provided. Agencies often seek solutions elsewhere.	Some services are provided to agencies at the enterprise level.	Agencies can access a set of enterprise wide services that meet their needs. Ability to change or add services limited by inertial forces.	A "plug & play" capability makes adding and removing services efficient and expedient. Competition exists within the delivery platform.	Unfettered access to a broad spectrum of qualified technology choices. Business outcomes drive technology decisions.
Operational Competence	Ad-hoc processes. Processes not well defined or documented.	Repeatable processes in place for certain processes. Tools and templates exist for certain processes.	Standardized processes across the organization. Processes well defined and documented.	Standardized processes are actively managed through quality metrics.	Processes are optimized through continuous improvement techniques.
Control & Flexibility	No clear decision-making process. Limited stakeholder engagement.	Operational forums established. Issues and decisions escalated.	Customers and Suppliers engaged in forums. Management empowered to resolve issues.	Forums proactively focused on Customer. Decision authority pushed to appropriate level.	Relational governance forums focused on innovation & platform improvement.
Change Capability	Change driven by outside forces	Necessary changes identified by CIO, but inertial and political forces hinder adoption.	CIO gains adoption of and can implement changes needed at the enterprise and agency levels.	Proactive changes based on customers demand and new services / technology availability.	Mature "plug & play" enables continuously contemporary environment

State CIO Priorities: More Than a List



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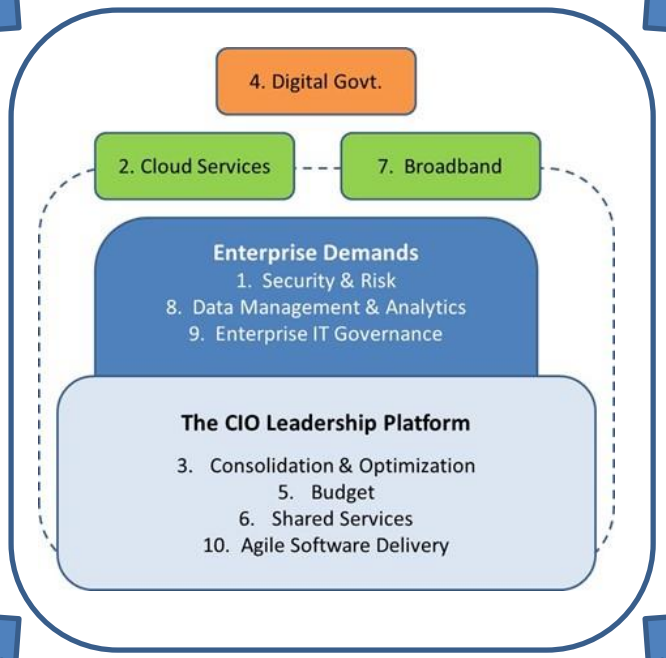

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