THE STATE CIO OPERATING MODEL

A PLAYBOOK FOR MANAGING CHANGE IN A SUSTAINABLE WAY

THE JOURNEY TO DATE

Challenged by political, market, customer and inertial forces, state CIOs must use their delivery capability as currency to gain acceptance and influence in a government and political environment replete with high turnover (elections) and technologically savvy stakeholders. Everyone purports to be a technology expert and citizens expect experiences working with their state government to be as easy as ordering a new set of cookware from Amazon. Over the course of the last 15 months NASCIO has teamed with corporate member partner Integris Applied, Inc., to develop and explore the concepts of an evolving delivery model for state CIOs.

During this journey we have explored prior NASCIO work, interviewed current CIOs and developed a survey (to which 49 state CIOs responded) tailored to the characteristics of an organization moving toward a "brokerage" type model. We have moved from a conceptual framework within which state CIOs must operate to defining the characteristics of an organization moving up a maturity curve. We have come to the conclusion that state CIOs must actively define the role they are in, help stakeholders envision the possibilities for the role, establish a path to maturity and bring an organization along with them. The full library of our work can be found on the NASCIO website.[1]

THE PLAYBOOK: BRIDGING VISION AND ACTION

Just as our last paper sought to bridge "trends and action" so too does this paper. Our ultimate work in NASCIO's "CIO Operating System: Managing Change in a Sustainable Way" project, is to bridge the vision presented in prior works with steps a state CIO can use to affect change. This playbook establishes the how – a guide connecting all work performed to date and positing for state CIOs and their stakeholders a path forward in a complex world where change, not technology, is the force CIOs must be most adept at managing.

In moving towards a "brokerage" model that better accommodates shifting technologies and customer demands we have presented a path forward based on a services maturity model and the elements that must be in place in order to effectively lead and manage a multisourcing operating model.
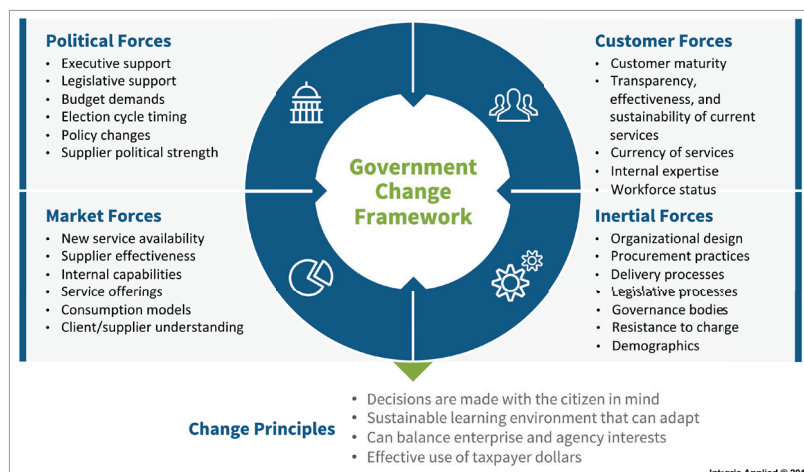
Craig Orgeron, PhD
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The technology world continues to grow increasingly complex. State CIOs are often asked to radically innovate on the latest next generation technology while keeping legacy systems up and running. How are state CIOs grappling with an extensive portfolio of sourced solutions? That very question led our NASCIO Enterprise Architecture and Governance Committee to examine multisourcing. With a focus on the CIO serving as the broker of shared services, our committee, collaborating with Integris Applied, is focused on the evolution of a services-based model that can be measured, monitored and tracked giving CIOs a path to operational maturity.

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

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

Government Change Framework

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

Inertial Forces
- Organizational design
- Procurement practices
- Delivery processes
- Legislative processes
- Governance bodies
- Resistance to charge
- 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

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The state CIO must broker many aspects of service delivery including needs and demands, market capabilities, internal capabilities, vendor relationships, contracts and service level agreements, budgets, management initiatives, programs, and projects. Further, as states and territories transition toward this new operating model, they will be looking to their state CIO in the role as a broker for direction setting decisions. The very forces driving states toward this new operating model will also transition and transform within the context of a new operating model. The people behind these forces will someday understand and depend on this new operating model in attaining their own objectives.

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

Given this background, recall the conundrum presented to Alice by the Cheshire Cat – *if you do not know where you are going then any road will take you there.* State CIOs know where they are going: a state government that is responsive to citizens. A state CIO's knowledge and understanding of the Four Forces Model discussed throughout this project will help them guide their stakeholders toward that destination. But, *how do we get there?*

In this report we present "plays" that any state or territory can utilize on their unique maturity journey. These plays encompass leadership qualities and requirements as well as operational priorities designed to align an organization around sustainable outcomes and change processes.

Just as a football team will modify, enhance, and add to their "book of plays" so will state governments ratchet up their "plays" over time to become expertly proficient at managing and leading within this new operating model. This report is an initial set of plays that we feel are key to achieving the successful adoption and sustainment of a new CIO operating model involving multisourcing and the role of the state CIO as a broker of services.

We know from the data that all states will embrace multisourcing and the management of multiple delivery platforms over time. Across the many state initiatives, embracing our similarities is more important than letting the differences in our governance structures and political circumstances create barriers to progress. Therefore, we have the opportunity, possibly the mandate, to travel together, sharing best practices, what works, and what doesn't work. There is also the opportunity to "join up" by looking for opportunities to co-broker through multi-jurisdictional collaboratives. Specific actions can include comparing service catalogs, governance structures, workforce strategies, service management manuals, and contract language.

Eric Boyette
Chief Information Officer
State of North Carolina
Co-Chair, NASCIO Enterprise Architecture & Governance Committee

The CIO as Broker Model recognizes that as technology evolves and continues to expand into every aspect of government, CIOs can no longer deliver every solution through their agencies. Modern CIOs must understand technology but they must be willing to work with partners both inside and outside of state government. Today's CIOs must first be able to identify problems and how technology can address gaps in services. The best solutions can exist outside of the CIO's office. Partnerships with the vendor community can help us identify the most effective solutions for our citizens. This is new ground for many of us who are more accustomed to acting as technologists rather than negotiators and/or brokers.

#1

Play #1: Listen to others' compelling stories

The state CIO's most important leadership quality is as a communicator. Great communicators listen more than they speak and seek first to understand then to be understood. Listening to others' compelling stories will provide the CIO with a context and understanding of the organization's past, present and future. Engaging with stakeholders across the Four Forces requires an understanding of their perspectives, wants and needs. The state CIO must understand the strategic intent of stakeholders, particularly the agencies and their programs.

1. Create a *stakeholder management framework*. Identify and organize stakeholders using the Four Forces framework (or some similar model). Develop messages and outreach strategies based on the stakeholders' interests and needs.

2. Establish cadence for listening sessions with all stakeholder groups. Regularly scheduled events should be built into the state CIO's schedule.

3. Empower a communications team to develop messages for all stakeholder groups. Tell your organization what you are doing and why you are doing it. Stakeholders should see that communications is a priority.

4. Let others know you are listening. Repeat back to the organization and stakeholders the contributions they make in your listening sessions. Empathy creates buy-in. People like to know that they were part of the process.

5. Acknowledge barriers and challenges to taking action. A grounded understanding of the challenges others have faced builds credibility.

**Calvin Rhodes
Chief Information Officer
State of Georgia**

The state of Georgia has been plotting its own course for sourcing and delivering IT services for more than a decade. The paradigm shift from providing services using internal resources to building a dynamic portfolio of services provided by multiple external partners is profound, but with an emphasis on communication and stakeholder engagement, we are experiencing exactly the kind of success we hoped for. The goal was and still is to deliver innovation and competitively priced services that support agencies as they serve Georgians. This playbook hits all the right notes, not only for a state launching a brokerage type model, but also for those of us who have done so and are working toward greater discipline and maturity.

Play #2: Write and tell your compelling story

An effective CIO must tell a story that engages all stakeholders in the Four Forces model and makes them the heroes.
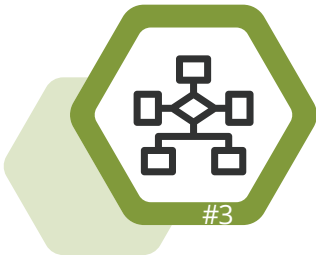
This story should come with a communications plan that identifies all stakeholders and stakeholder groups which are aligned or organized by the Four Forces. The messaging will be unique and relevant to each of these stakeholders. The state CIO will need to develop and effectively communicate a clear vision demonstrating relevance and enablement for each stakeholder.

The state CIO must maintain ownership of the plan but delegate maintenance to his or her team. Everyone in the state CIO's organization must understand and support the plan.

1.   Develop a "story" for the state CIO's organization. The governor's agenda, customer needs, and stakeholder perspectives are all inputs to the story. The story casts a vision for the enterprise and helps stakeholders understand how the state CIO will improve services for agencies and citizens alike.

2.   Make your stakeholders the hero of your story. Using the *stakeholder management framework* created in Play #1 revisit messaging and outreach strategies at least quarterly. Update these strategies based on decisions made and input received through listening sessions and other sources.

3.   Retain ownership of the story. Assign accountability for its implementation to senior staff and the communications team. The state CIO is the lead communicator for the organization.

4.   When the wind shifts, change the sails. State CIOs must adapt to the shifting nature of the Four Forces. No story is perfect, and leaders must understand when a change in course is necessary. The state CIO must be well connected with customers and suppliers in order to anticipate changes and emerging trends.

5.   Answer the "why?". "Why change?" is a refrain heard in any organization or enterprise. Helping others understand what change means for them brings them along in your journey.

#3

Play #3: Treat services contracts as management frameworks

Services Contracts are the new "broom closets." Anyone with a credit card can purchase space on a virtual server and contracting for "as a service" solutions is easy. State CIOs have long battled data center sprawl. "Services sprawl" is the modern CIO's challenge. The CIO must understand the state's obligations under existing subscriptions and services contracts and develop strategies for rationalizing this "portfolio" of services contracts.

Moving more and more into a services management organization requires new discipline for managing services contracts, and employing and managing technology.

1. Establish your service management "platform." A state CIO must manage services from a range of sources. These sources (XaaS, insourced, outsourced, cross-jurisdictional collaboratives, etc.) can be managed with consistent terms and frameworks. Identify operational provisions that will be considered common and those that are considered unique.

2. Assess service status and health. Evaluate services regardless of source and address contract and delivery triggers (timing triggers; rights triggers; audit triggers; financial triggers). Services contract terms should define a *management framework* that enables mutual accountability and shared outcomes (i.e. the buyer receives a service, the supplier makes a profit).

3. Assess the services management manual (SMM). An effective SMM *encompasses* the configuration management database (CMDB). Evaluate the SMM for completeness. Conduct a gap analysis. Identify families of contracts and statements of work (SOW). Assess the effectiveness of alignment and integration at an operational level. Use the SMM as the CMDB for managing services contracts going forward.

4. Perform a health check on contract management functions. Contract management process and personnel should be integrated into governance forums and practices.

5. Build a *services contract alignment roadmap*. Align this roadmap to the enterprise's strategic roadmap. Define the "as-is" and the "to-be". Prioritize and rank contract change and alignment strategies based on customer demand and market capabilities. Use change events (e.g., a contract expiration) as strategic markers to evaluate the need for change in a services contract.

**Dewand Neely
Chief Information Officer
State of Indiana**

"CIO as Broker" will continue to be an evolving operating model with many dimensions. One of those critical dimensions is strategic contract alignment ensuring precise coordination and engagement across all suppliers.

#4

Play #4: Treat services equally regardless of source

Consistent delivery metrics should be applied to all services whether those services are provided internally, through cross-jurisdictional collaboratives, or from an external supplier. This approach enables a facts-based decision-making process and quality comparisons across the entire services portfolio.

Understand the unique factors for a particular service and determine when they should or should not apply to another comparable service.

1. Categorize services into natural groupings. Insourced and outsourced. Infrastructure and applications.

2. Establish an acceptable baseline for service metrics within each group. An understanding of market-based standards is a good starting point. Assess metrics across all services.

3. Assess service metrics against the baseline.

4. Use assessment findings to inform the *services contract alignment roadmap* in Play #3.

5. Use roadmaps to inform strategic decisions for the state. Is a service more effective if it is procured from the market? Is a service more effective if it is retained?

Play #5: Build a formal market engagement strategy, and invite others to the party

Market engagement is more than simply meeting with suppliers. It is a collaborative and intentional exercise designed to foster understanding between buyers and sellers.

State CIOs should create recurring forums with agency customers to examine market offerings and pending innovations. Emphasize outcomes, not technologies, and maintain a balance between improving existing services and adding new innovative ones.

Participating suppliers should receive something in return. They should be informed on what agencies are trying to accomplish through agency programs. Suppliers should also be provided with time estimates so they can anticipate timing on RFIs, RFPs, and plan for resource demand.

1. Identify the shared services platform and declare membership. This builds on Plays 1 through 4, defining participating suppliers as an interest group.

2. Extend the focus of key governance forums to engage suppliers as a functional group (separate from and in addition to 1:1 interactions).

3. Promote user group events between platform suppliers and participating agencies to improve service outcomes.

4. Establish a market test and re-bid calendar for the platform to support a recurring cycle of market opportunity review, demand side prioritization, market test, bid, evaluation and adoption.

5. Invest in rules and processes (measuring, reporting and assessing/health check) to improve 'plug and play' capability and overall platform performance.

#6

Play #6: Make Procurements Strategic Business Events

Look beyond the procurement to the sustainable outcomes future administrations can use to improve services. Consider long term collaborative, trusted relationships when engaging the market place. Suppliers need more than strategic plans. They need timelines, dates and real events. They should be engaged as trusted, strategic partners.
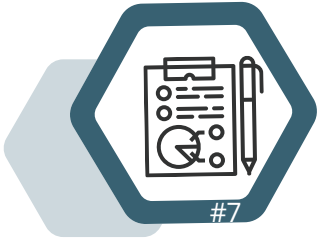
Buyers need more than a sales pitch. Suppliers need to really understand what the state is trying to accomplish through agency programs, enterprise-wide economies of scale, when a capability is uniquely focused, and when a capability can be shared across two or more agencies.

1. Establish meaningful and continuous communication with the market. Help suppliers see beyond standard documents to understand the motivations behind the state's strategies.

2. Prepare your organization to look beyond the procurement. Procurements should be seen as events that set the precedents for healthy long-term relationships where suppliers make money and states receive the services they need.

3. Use all tools available to communicate with potential suppliers. RFIs and RFQCs are your friends but only if used to lead to an event (do not waste the market's time).

4. Challenge conventional procurement thinking. Often something "can't be done" only because it *never has been done*. Look for ways to communicate with suppliers during procurements through forums such as clarification and integration sessions.

5. Help the market look beyond a sales cycle. If the market understands the problem they must solve, it will focus less on selling and more on presenting lasting solutions.
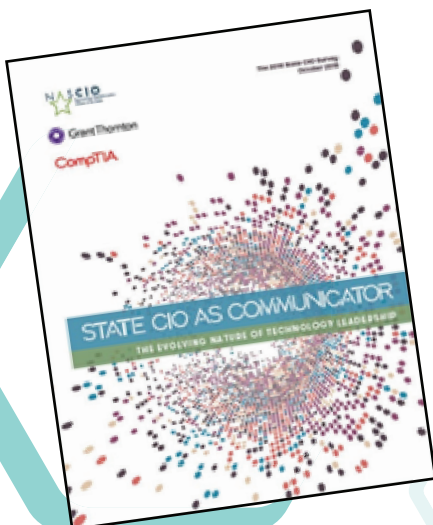
CIO as a broker is the future, that's where the private sector has gone and now the public sector will follow.

2018 NASCIO Annual CIO Survey

Play #7: Invest in Disciplined and Transparent Documentation of Services and Outcomes

80% of your environment can be managed using five "levers" that create transparency. These are customer engagement, the service management model (SMM), the master service agreement (MSA), governance, and contract management.

Each of these must be an effective capability which highlight the need for new roles and responsibilities and skills within the state CIO's office workforce. The new operating model is a transformational change. In this model the ratio of management roles to technology roles changes.

1. Make the Services Management Manual the operational intersection for everything IT, a common library that is continuously updated to create shared operating rules (Builds on Play #4)

2. Make the currency of information the reference point. Do not assess or measure or report unless you intend to make it continuous. (e.g. Move beyond static Service Level reporting)

3. Invite Customer engagement with shared facts and a shared journey/ storyboard. Define the objectives and document the results. (Builds on Plays 1 & 2)

4. Invest in measurable Change Capability through contract alignment strategies and Contract Management support of healthy custom & practice (Builds on Play #5)

#8
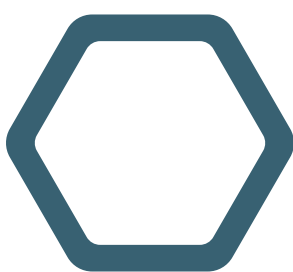
Play #8: Distinguish between "Brokered" and "Managed"

A mature organization must do both. Brokering is a mature capability requiring a fairly mature organization. Each contract in the services portfolio must be proactively "managed" with a number of considerations.

Services acquired internally are "managed" differently than services from outside the CIO's organization. This is an added expertise and discipline beyond simply acquiring services. It requires an understanding regarding approach, reporting, partnering, contracting, and vendor management.

In parallel with brokering, the state CIO must continue to pay attention to internal organizational management.

The CIO must understand what is required respective to each service whether that service is acquired internally or externally. There are best practices around managing services from various sources.

To maintain an enterprise-wide awareness and perspective, all services will be managed within the service catalog which is a component of the *service management manual (SMM)*.

As stated in Play #3, services contracts are management frameworks and must be managed in new ways to accommodate the changing delivery models for technology solutions.

1. 'Managed' is a focus on periodic engagement with the market; 'Brokered' is about remaining continuously engaged with a community of suppliers.

2. 'Managed' is a focus on service outcomes and governance; 'Brokered' adds integration and cooperation as key metrics;

3. 'Managed' is a recognition of the value of stakeholder engagement; 'Brokered' is a focus on stakeholder participation;

4. 'Managed' is a focus on operational alignment and cross-functional integration; 'Brokered' is a about the shared environment with a shared source of truth and shared accountability;

5. 'Managed' is about competitive pricing and terms; 'Brokered' is about an open platform for plug and play service offerings

#9

Play #9: Focus on the Citizen

Citizen expectations are high. States are challenged to make interactions with government more "Amazon like". Elected officials are using technology to win elections – technology that resembles the citizen experience.

States must respond effectively as technical and economic feasibility allows. Thus, the state CIO must engage citizens in review of services and anticipated future services that will have a significant demand.

Stakeholders that make funding decisions are also listening to the ultimate customers – the constituents within each state. The state CIO should therefore be listening via their own internal town halls and other means including forums that create the opportunity for participation from the governor and the legislature.

1. Understand the technologies used by stakeholders to win elections – these are the expectations your stakeholders will bring to government.

2. Assess and improve the collection and application of end user feedback. Create standards for the enterprise that enable a consistent and repeatable process. Assign a "high touch" agency to lead the initiative.

3. Engage city governments and the solutions they apply to constituent facing challenges.

4. Develop "change management" as a practice and a requirement. Use best practices to develop and communicate an adoption strategy.

5. Show empathy by putting yourself in the end user's shoes – you are an end user too, after all!

Michael Hussey
Chief Information Officer
State of Utah

Citizens have high expectations of government services. The State CIO's role is evolving as citizens expect government services to be delivered immediately and easily. In order to meet technologically savvy consumer needs, we need to forge strategic partnerships with the vendor community. CIOs, in a broker role, should be carefully surveying the IT marketplace to ensure the best solution is being utilized to deliver government services effectively to meet the high expectations of citizens. CIOs have a great opportunity to improve citizen interaction with government by reflecting on our own experiences and interactions with government so that we can simplify the lives of all citizens. States must utilize tools to survey citizens to receive continual feedback on how to best deliver services, understanding exactly how services are expected to be delivered. Citizens are familiar with the ease of use and delivery of services from the private sector, and states can broker a similar experience for government services. CIOs must forge strong partnerships with the IT vendor community to effectively deliver government services to citizens.

Play #10: Prepare the Workforce

The new "CIO as Broker" operating model requires a different portfolio of skills, knowledge and experience. Identify the new, necessary, roles and responsibilities of personnel. Identify the best sourcing for these roles – internal or external. Some roles are inherently internal.

Develop the necessary training and experiences to prepare personnel for new roles, emerging roles and evolving roles. Revisit the necessary skills portfolio as you anticipate moving to the next level of maturity in the new CIO Operating Model.

1. Be realistic. Use data to tell the story about a retiring workforce and how emerging generations want to work (the "gig" economy).

2. Challenge old hiring practices and explore new talent acquisition models such as UpWork.

3. Write the story of a changing technology landscape and the new skill sets required to develop the solutions to meet citizen expectations (see Play 9).

4. Request a seat at the HR table. Technology has different talent requirements than other government functions and hiring processes must be modernized. Visit the continued titles and job descriptions subject in the process.

5. Acknowledge that younger generations might not make government a career. Find opportunities for new workers to build innovative solutions and to engage with end users.

Todd Kimbriel
Chief Information Officer
State of Texas

When Texas transformed into this Broker model, one of the areas that proved to be the most difficult was preparing the workforce for rethinking how we delivered services and changing the muscle memory that existed in our core staff.

We transformed our organization into a functionally based organization and not a program-based organization. Previously we had a program offering, such as Texas.gov, and a dedicated team of individuals that worked together exclusively on that program. There was no overlap between programs and for our customers it was like dealing with 5 or 6 different companies.

We transformed our workforce by pulling the planning function out of each dedicated team to create a single planning group that handles all of our programs, we pulled the daily operations function out of each dedicated team to create a single daily operations function that handles all of our programs and we pulled the customer care function out of each of the dedicated teams to create a single customer care function. This has improved our ability to support both programs and customers and move from managed services to brokered services.

Play #11: Think and Act in Two Year Increments

Remember the average tenure of a state CIO is under 36 months. So, make quick wins and develop strong relationships that enable change agendas. These agendas must contribute to the long-term strategy that spans administrations.

Be sure to publicize your successes.

Remember governors encounter bureaucracy too! Longer term endeavors need to be broken up into manageable steps each of which has the potential for a success story to tell.

Given the fact that government takes time to make changes – anticipate constraints, how to use them and how to change them.

1. Embrace the governor's agenda and seek quick wins. A CIO's credibility is his or her ability to deliver. Deliver quickly and build a "credibility bank."

2. Cast a vision. Leadership matters and employees want to follow an individual who can communicate where the organization is going. Use dates and milestones to measure progress.

3. Determine whether a "transformation agenda" is warranted. Use the word sparingly. What once was transformative (i.e. data center consolidation) is now common place.

4. Adjust plans quickly when it is clear they will not work: "The pessimist complains about the wind. The optimist expects it to change. The leader adjusts the sails." – John Maxwell.

5. Use the Four Forces model to identify constraints. Use the constraints to enable creativity.

LOOKING AHEAD

State CIOs recognize that they must adopt and mature their expertise as a "broker of services" and the organization, governance, and operations to support a new operating model. These eleven plays are the starting point for those beginning to develop their operating model. These should also be adopted as major plays for the sustainment of efforts within states that are already operating under a new broker model.

States will need to become proficient in new approaches for managing their delivery platforms. Though every state will have its own reality of the four forces, these plays can be common to all states and territories. All operating models will mature and evolve. States and territories will move up the maturity curve at a cadence in line with their unique circumstances. It is important to remember that the process for adapting to a new operating model is a journey that will take many years, involve challenges and barriers, and will require carefully orchestrated strategies related to business, organization, portfolio management, vendor management, and customer relationship management. NASCIO will continue its work in this arena to assist with both the maturing of this new operating model, the adoption across the states and territories, and the sharing of learnings and best practices coming from the cohort of states moving in this direction.

Stay tuned!

GLOSSARY

CONFIGURATION MANAGEMENT DATABASE (CMDB)

A Database used to manage Configuration Records throughout their Lifecycle. The CMDB records the attributes of each configuration item, and relationships with other configuration items. A CMDB may also contain other information referring to configuration items, for example Incident, Problem and Change Records. The CMDB is maintained by Configuration Management and is used by all IT Service Management Processes.[2]

MASTER SERVICE AGREEMENT MSA)

An MSA is a contract that clearly describes the general terms that will be applicable to services. Its purpose is to speed up and simplify future agreement on services by pre-agreeing to the general terms that will apply to all services. The time-consuming negotiation of the general terms is done once, at the beginning. Future agreements for services adopt these general terms and need only articulate any services-specific deviations from the general terms, together with specific matters related to the services, such as services description, service level metrics, and pricing. Often the future agreement for a service under an MSA requires only a purchase order.

OPERATIONAL LEVEL AGREEMENT

An OLA describes the process obligations between service providers in the context of each service providers service commitments to a client, and between a service provider and the client where the client retains process responsibilities. OLAs identify and address material work practices where the parties rely or depend on each other for successful delivery of services and service performance obligations. OLAs exist within a contractual framework that includes the SMM, the SLA and subsidiary documents such as Operating Level Metrics (OLM) that further clarify performance obligations in support of identified interdependencies.

SERVICE LEVEL AGREEMENT

An agreement between an IT service provider and a customer. The SLA describes the IT service, documents service level targets, and specifies the responsibilities of the IT service provider and the customer. A single SLA may cover multiple services or multiple customers.[3]

SERVICE MANAGEMENT MANUAL

The Service Management Manual (SMM) is an ITIL (v2011) construct for organizing and defining the operational policies, processes and supporting procedures of the IT environment. The SMM is a library of operational documents organized in a hierarchy that enables predicable delivery of IT services.

It is typically created as a contract requirement in managed services agreements. The SMM is cross referenced to other contract documents as a guide for operations. In a multiple supplier shared services environment, the SMM is the common reference point / library for shared processes and obligations. As such, it is intrinsic to the purpose of the SMM, that it is maintained as a current reference set.

ENDNOTES

1. State CIO as Broker: A New Model, April 2018 Available at https://www.nascio.org/resource-center/resources/state-cio-as-broker-a-new-model/.
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   The State CIO Operating Model: Bridging Trends and Action, February 2019 Available at https://www.nascio.org/resource-center/resources/the-state-cio-operating-model-bridging-trends-and-action/.

2. Definition retrieved from ITIL Glossary / ITIL Terms. Practitioner modifications from Integris Applied. Original ITIL definition can be retrieved from https://wiki.en.it-processmaps.com/index.php/ITIL_Glossary.

3. Definition retrieved from ITIL Glossary/ ITIL Terms at https://wiki.en.it-processmaps.com/index.php/ITIL_Glossary/_ITIL_Terms_S#Service_Management_System.

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