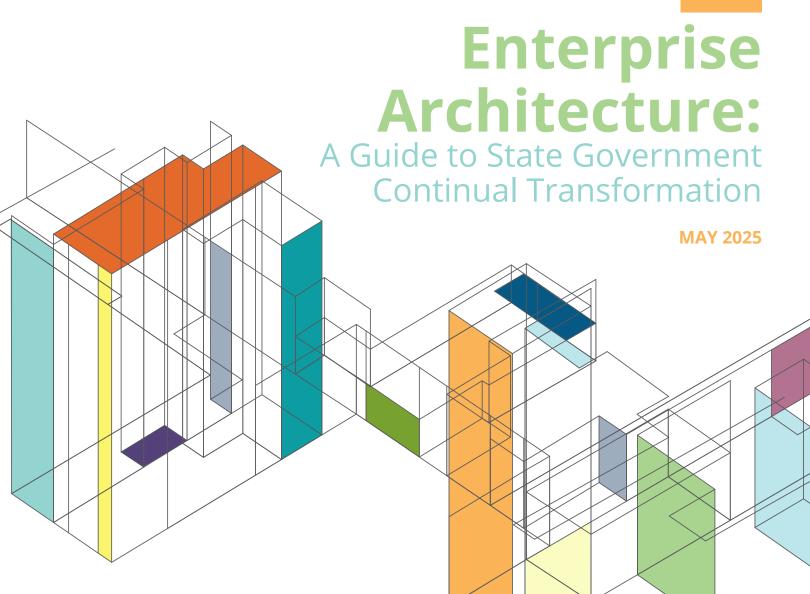
PART 2





### Enterprise Architecture: A Guide to State Government Continual Transformation

State governments are highly complex and diverse enterprises with often overlapping and conflicting business operations and direction. Understanding this complexity and creating some sense of order is necessary to drive change and make wise investments. It's a tough challenge and one that requires discipline and commitment over time.

Enterprise architecture is an essential operating discipline that encompasses frameworks, methodology, definitions, roles and responsibilities, processes, best practices, tools and techniques. All of this fits within what can be termed an operating discipline created for ensuring the state enterprise can achieve its intended outcomes.

### **Enterprise Architecture Ensures Alignment**

A well-implemented and continually refreshed enterprise architecture can ensure that those that make up the state government enterprise are aligned in vision, mission and operations. Enterprise architecture provides a mechanism for achieving effective communication across the many roles that make up the landscape of state government.

State governments are highly complex and like anything that is complex it requires a blueprint that describes the architecture or the foundation for its purpose. That foundation is documented in a well-maintained enterprise architecture. Without enterprise architecture, the various departments, operations, functions, roles and responsibilities and investments will go in different directions resulting in waste and redundancy in investment of time, personnel and finances. Further, investments will be relatively short lived. We would never consider building a complex factory or aircraft carrier without a well-designed set of blueprints and enterprise architecture plays that same role within state government.

### Every Organization has an Underlying Enterprise Architecture

Every organization has an inherent architecture, but the question is whether that architecture was designed on purpose, or did it evolve over time. Historically, state government architectures have evolved by default, not by design. In this brief, we make the case for a well designed and implemented enterprise architecture that will enable continual business transformation and ensure state government will effectively achieve its mission, its strategies and its objectives.

A well-implemented enterprise architecture will make certain that the executive branch of a state government or an agency can continually transform to anticipate and react effectively to a wide range of factors: changing political direction, federal policy, citizen expectations, regulatory changes, economic disruptions, legal demands, global changes, business innovations and emerging technologies, to name a few.

The state CO is no longer just a technologist – they are the chief strategist of public service delivery. As such, they require enterprise architecture to connect the silos and services and navigate through the complexity.

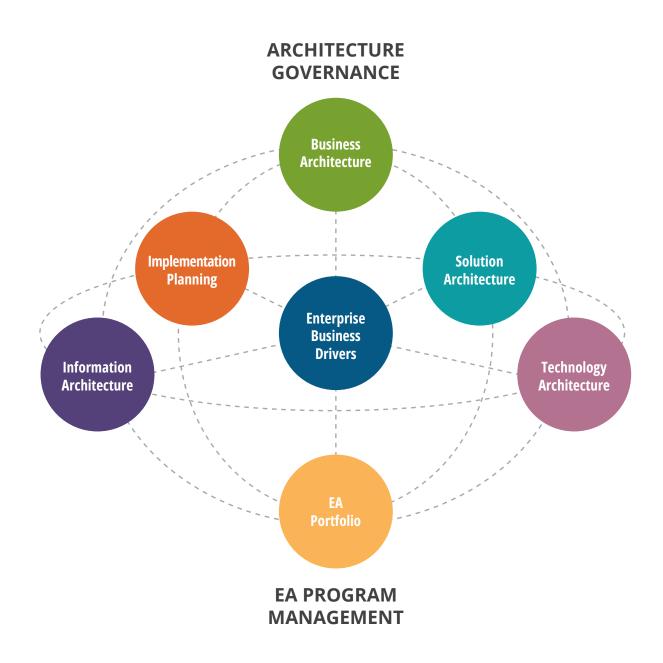
Jason Snyder
Secretary of Technology Services and Security
Commonwealth Chief Information Officer
Commonwealth of Massachusetts

#### What is Enterprise Architecture?

Enterprise architecture documents the broad enterprise ecosystem. These descriptions are presented in the NASCIO Enterprise Architecture Tool Kit v 3.0 and provide an understanding of this subject.

Enterprise architecture can be described as an operating discipline comprised of frameworks, methodologies, and delivery processes that can be leveraged to manage the complexities of government.

Enterprise architecture defines an enterprise-wide, integrated set of components that incorporates strategic business thinking, information assets and the technical infrastructure of an enterprise to promote information sharing across agency and organizational boundaries. Enterprise architecture is supported by architecture governance and the allied architectures of business, information, technology and solution architectures.



NASCIO Enterprise Architecture Framework

# Why? The Motivation for Investing in Enterprise Architecture

Enterprise architecture enables state government to document and better understand the complexity of the environment in a holistic way. It's one critical dimension to better governance. The necessary investment in the practice of enterprise architecture encompasses the employment of knowledgeable people, design and deployment of processes, technical capabilities such as platforms and tools, training, marketing and communication.

### **Enterprise Architecture Guides Continual Transformation**

Enterprise architecture is the operating discipline for continual transformation, state government change competency, a concept fully described in NASCIO's publication <u>Transforming Government through Change Management: The Role of the State CIO</u>.

Enterprise architecture encompasses the entire state government ecosystem and provides the capability to integrate the various agencies, business processes and technologies to deliver government services in a coordinated way.

# Enterprise Architecture Can Surface Opportunities to Cut Costs and Justify Investments

Consider a new administration or executive leadership team or management in a specific agency who will be looking for gains in effectiveness and efficiency. The incoming administration is going to identify those targets of opportunity by evaluating spending and determining what can and should be cut.

An effective enterprise architecture practice will enable that new administration to clearly document its intent and provide the roadmap for reaching that intent. Such a practice will provide the state CIO with the necessary data and analytics to rationalize where to cut costs and where to invest for the most impact.

In order to actually achieve that rationalization, the state CIO must have a view into the full investment portfolio, which is achieved through an up-to-date, complete enterprise architecture. Such must be in place to begin to rationalize the investment portfolio. Additionally, there must be an incentive for agencies to participate in such an effort. Much of redundant investment and risk are eliminated by agencies joining up on common business and technology capabilities. Agency executives must move from a view of only their agency to an enterprise-wide viewpoint that encompasses the entire executive branch of government. This is often a significant challenge that must be addressed with broad stakeholder engagement and continual deliberations.

### Business Architecture is Core to Enterprise Architecture

A well-implemented enterprise architecture includes a business architecture practice that maps value streams and supporting capabilities directly to the organization's strategic goals and objectives. This then provides the state CIO with the ability to identify common business and technology capabilities where investment can be shared.

Examples of a redundant investment includes software licensing where each agency is negotiating their own "deal" many times with the same vendor and getting different pricing. With enterprise visibility, this waste of financial resources can be reduced or avoided through rationalizing enterprise licensing with software vendors.

In order to gain sustained effectiveness in delivery of government services there will be considerations of new investments that are competing for resources. This is the time to look across the enterprise for shared business and technology capabilities to identify the best opportunities for investment to achieve efficiencies and effectiveness in government service delivery. This effort may include objective and measured evaluation and eventual deployment of emerging innovative technologies.

## Ongoing Capability Assessment Through Enterprise Architecture

The governance and operational management of any technology should then be included within the practice of enterprise architecture. Whatever technology or business capability arrives on the scene, it will have an inherent lifecycle. Enterprise architecture will include continual evaluation of capabilities and determination of their maturity and when they should be removed and replaced.

The future is focused on incremental modernization of systems and processes that requires a robust enterprise architecture foundation and principles that emphasizes business and integration architecture to remove traditional agency silo's and share data and functionality across the enterprise.

**Bill Kehoe** 

Director & State Chief Information Officer Washington Technology Solutions State of Washington

## How to Briefly Describe Enterprise Architecture to Any Policy Maker

The value proposition for enterprise architecture is often not clear and well understood by political leadership, policymakers and legislators. Avoid the buzzwords and focus on the need to invest in a strategic business practice that helps to bring visibility to the complex business functions supporting state government. They understand that process improvements must be undertaken to deliver a modern government.

It provides the necessary discipline for gaining efficiencies, effectiveness and cost savings through business transformation, business process improvement, facilitating innovation and providing effective performance management. Enterprise architecture charts the path forward.

#### Benefits of a Well Implemented Enterprise Architecture

There are many tangible benefits to investing in a well implemented enterprise architecture. State CIOs can select and prioritize the following benefits that best meet their state's current needs:

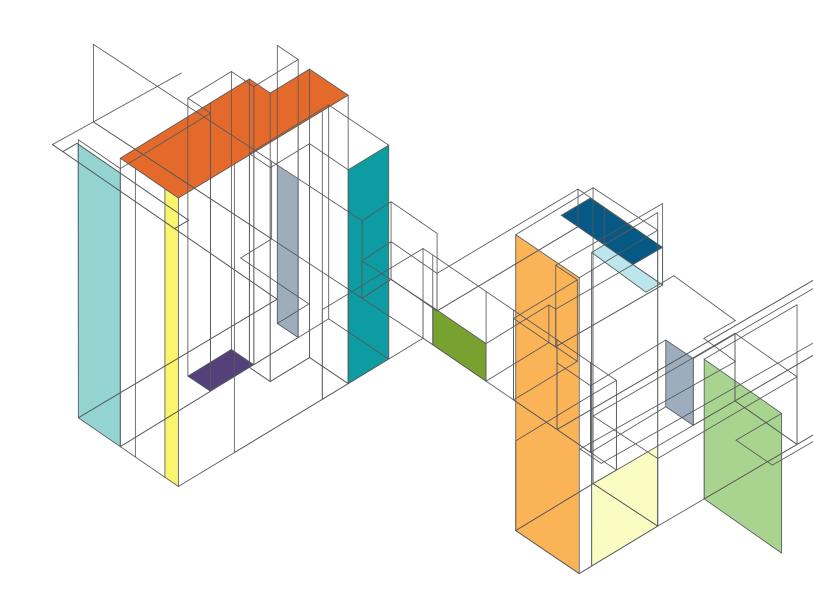
- Guide continual business transformation.
- Guide digital transformation including business and technology strategies.
- Identify opportunities for cost reduction and business and technology consolidation.
- Continually evaluate the effectiveness and efficiency of existing operations and the facilitation of change in those operations.
- Evaluate and guide investment decisions.
- Provide effective performance management.
- Test and evaluate alternative organizational models.
- Test and evaluate business model alternatives and changes.
- Guide business process improvement.
- Surface opportunities for value creation.
- Guide the evaluation and potential investment in innovative technology and business capabilities.
- Facilitate business process and technology reuse and reduction of redundant and unnecessary investment.
- Respond to current and anticipated regulatory mandates.
- Guide and implement cloud strategies.
- Identify and prioritize skills and knowledge required of the workforce or needed through contracted service providers.

#### The Path Forward - Get Started

Enterprise architecture is a necessary operating discipline that provides the means for state government to align its investments in business and technology capabilities with its mission. Through understanding of how state government business and technology capabilities interoperate and integrate, the state CIO can align these capabilities with the strategic intent of the administration and individual agency executives.

Enterprise architecture can improve an organization's overall efficiency and effectiveness by surfacing and eliminating or reducing redundant and duplicative investments.

Business architecture is not merely a technical framework; it is a strategic enabler for state CIOs to lead transformation, align strategy with citizen outcomes, and maintain agility in a constantly changing environment. The time is now for state CIOs and the NASCIO community to champion business architecture as a core component of their enterprise architecture ecosystem.



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#### **About NASCIO**

Founded in 1969, the National Association of State Chief Information Officers (NASCIO) represents state chief information officers (CIOs) and information technology (IT) executives and managers from the states, territories and District of Columbia. NASCIO's mission is to foster government excellence through quality business practices, information management and technology policy. NASCIO provides state CIOs and state 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. From national conferences to peer networking, research and publications, briefings and government affairs, NASCIO is the premier network and resource for state CIOs. For more information, visit www. NASCIO.org.