





Destination: Advancing Enterprise Portfolio Management - First Stop: Issues Management

Introduction - A Balancing Act for the State CIO

The state CIO is required to manage a vast array of relationships, needs, demands and solutions. From both the demand and supply sides, the state CIO is the primary promoter, communicator and facilitator for enterprise wide perspectives. In that role, the CIO is required to continually balance business needs coming in from across government presented by government customer partners, and the many possible solutions and services coming in from the solution providers - presented by internal organizations, industry partners and cross-jurisdictional arrangements. A frustration shared by many state CIOs is the lack of a shared vision about the enterprise and the difficulties in managing a diverse issues and investment portfolio.

Matching up those needs with the right solutions requires the business acumen and technical expertise to address problems and surface opportunities that lead to delivering effective government services. In that process, the CIO enlists staff, industry partners, various management disciplines and technologies to:

- evaluate options
- reduce risk
- maintain, apply, and sometimes reevaluate enterprise standards
- reduce complexity and redundancy
- manage customer relationships
- · manage vendor relationships
- manage legislative relationships

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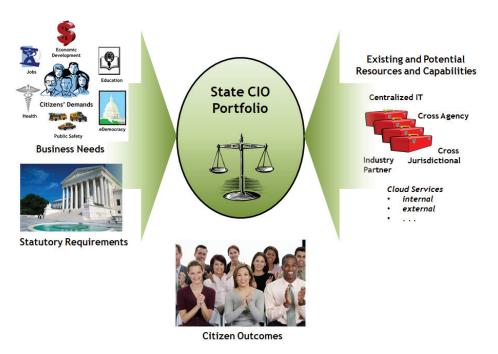
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- ensure statutory compliance
- ensure the successful framing and execution of programs and projects to deliver capabilities

Given resource limitations, the CIO must proactively manage competing demands and relationships from both sides of the balance beam - customers and suppliers.



State CIO Challenge - Balancing Needs and Resources

Quite a plate full for the state CIO! In order to successfully fulfill this role, the CIO must have the tools and capabilities for proactively managing the many elements that make up the dynamic and complex enterprise called *state government*. That enterprise is described by the state government *enterprise architecture*. That enterprise architecture encompasses the intent of government, the organization and processes of government, and the technologies of government. Within that architecture, the decision rights and accountabilities are specified through integral enterprise governance. The demands, business needs, solutions, investment decisions and the sustained execution of management initiatives, programs and projects are monitored and managed through integrated *enterprise portfolio management (EPM)*.

Taking the Pulse of the States - the Current Status on EPM

So what is the current state of capabilities and adoption regarding EPM? Each year since 2010, NASCIO has teamed with TechAmerica and Grant Thornton to conduct a survey of the state CIOs. The title of the 2013 State CIO Survey is *The Enterprise Imperative: Leading Through Governance, Portfolio Management, and Collaboration.* As the title implies



- the state CIO must maintain and promote an enterprise perspective and lead by leveraging three critical capabilities: governance, portfolio management and collaboration.

As presented in the 2013 CIO Survey, State CIOs were asked if they use a formal IT enterprise portfolio management process. 37% do not have such a process.

Figure 2

Do you use a formal IT enterprise portfolio management process to support decisions regarding planned initiatives, projects, or ongoing IT services such as application support?



In terms of the effectiveness of existing IT portfolio management, only 37% consider their processes as effective.

Figure 3
How effectively do your IT portfolio management practices help drive IT investment decisions? Please rate this effectiveness on the scale below.

	Percent	Percent
Do not use portfolio management	23%	
Use portfolio management	77%	
Not at all effective		7%
Somewhat ineffective		56%
Effective		32%
Very effective		5%

Additionally, NASCIO distributes a ballot to the state and territorial CIOs annually to learn what the top priorities are for the state CIOs. Those ballots are collected at the NASCIO Annual Conference, are compiled and used to create the State CIO Top Ten Priority Strategies, Management Processes and Solutions, and the State CIO Top Ten Technologies, Applications and Tools. The need and importance of EPM has recently been recognized as a top priority by the community of state chief information officers as reflected in the 2014 NASCIO State CIO Top Ten Priority Strategies, Management Processes and Solutions. Project and Portfolio Management joins the top ten priorities for the first time in the history of this report and assumes a notable position #4:2

4. Project and Portfolio Management: project management discipline, enterprise portfolio management (EPM), oversight, portfolio review, IT Investment Management (ITIM), training/certification of staff, traceability to mission and strategy, scope management, execution.

Based on these results, clearly enterprise portfolio management is a priority for state CIOs. NASCIO is responding to these results. This issue brief is the first in a series NASCIO will develop along with webinars and conference sessions to pull together best practices for implementing and maturing a growing capability in EPM across the states.



New Kinds of Enterprises - Cross-Jurisdictional Collaboratives

Adding to the available capabilities but also adding to the complexities of portfolio management is the growing employment of cross-jurisdictional collaborative arrangements. Cross-jurisdictional approaches entail different and more complex governance, decision making processes and funding models. Enterprise portfolio management must include the notion of a new kind of enterprise - a cross-jurisdictional enterprise formed to achieve a specific outcome for a cohort of jurisdictions that have agreed there is a mutual advantage to be achieved by joining up. This kind of an arrangement then adds new kinds of issues, management initiatives, programs and projects to the members' enterprise portfolios.

A New Age of Complexity, Change and Transformation

How can state government possibly manage this complex array of competing elements? The answer is through enterprise architecture with integrated enterprise portfolio management (EPM). EPM as a discipline has a more direct and understood history in the realm of project management. Many only consider it within this realm. However, as the state enterprise employs more kinds of investments, more collaborative partners, and migrates to managing more services and less inhouse development, EPM practice must mature as well. Additionally, issues are much more complex and integrated in today's political and economic environment. There is more connectedness, more networking, and an ever increasing rate of change. EPM must go beyond simply managing projects to encompassing a full life cycle starting with the issues that spawn projects and programs, and the management of the solutions those activities deliver. It must begin with and encompass the observations and ideation that eventually turn into raising an issue; evaluation through discovery, argument and debate; and resolution that eventually leads to a business case, a project, a solution and an outcome such as a process or system, the retiring of a system, or the formation of a collaborative.

The State Enterprise Portfolio - Convergence of Issues, Relationships, Capabilities, Orchestration, and Investment

NASCIO suggests extending enterprise portfolio management to include as part of the portfolio process the inclusion of the *issues that caused the portfolio to be created*. These issues need to be well understood and articulated, recorded and evaluated, providing the underlying reasons and precipitating circumstances that create the need for framing management initiatives, programs and projects. Those activities must be proactively governed through EPM to ensure proper prioritization, staging, allocation of resources, orchestration, timing and delivery.

Formal IT enterprise portfolio management processes have also become more the norm over the past few years. While CIOs view these processes as increasingly effective in monitoring the portfolio of ongoing projects, they also view them as relatively ineffective in driving IT investment decisions.

> 2013 State CIO Survey³



Effective EPM working in close coordination with enterprise architecture will identify and avoid redundant investments and ensure coordination of efforts across state government as well as jurisdictions.

Portfolios bring order to managing a complex arrangement of business needs, resources and capabilities. Portfolios provide a view toward patterns and relationships. It is imperative to establish traceability to the underlying cause or *business need* and the *intent* in addressing that need that prompted the framing of a management initiative, program or project.

This is particularly true within state government where there is greater scrutiny of every activity. Such scrutiny is enabled and encouraged through open data initiatives. And with the demand for greater transparency and open government, citizens will be raising more issues by asking more questions and demanding governments to justify its investment decisions, not just questioning final results. These portfolios will not only demand defense of how and why projects are executed - but more importantly - why these particular projects and approaches were selected to solve the problems at hand! Every investment issue will have to be defended first by demonstrating traceability to strategic intent of a program or agency - how it supports or implements that intent. Secondly, it must be defensible from a portfolio perspective - how it lines up with other priorities and activities at the state enterprise level.

Most importantly, policy makers must justify any endeavor, any investment, with a deliberate tie back to the societal values and priorities owned by the citizenry. This is the major difference between public sector portfolios and those created by the private sector. Further, issues, business needs and social needs must be continually evaluated for relevance. That relevance determines the need and urgency to act through management initiatives, programs and projects that are at various stages of delivery - planning, initiation, development, implementation, and change management. It is quite feasible that an originating issue will change, be replaced by a more compelling issue, become obsolete, or simply go away - the status of an issue should determine the viability of the solutions being considered, developed or employed to address that issue or set of issues. Additionally, the technological solution set may change, become obsolete, or become unsupportable - possibly during the delivery process timeline, or subsequent to implementation.

This descriptive is intended to outline the complexity, the variability, and ever changing fluidity of the enterprise portfolio. Further, the key instigator and sustaining rationale for any investment is the underlying *originating issue* that surfaced as a priority for state government. That issue must be carefully evaluated and monitored to ensure subsequent activity and investment is relevant, viable and effective.⁴ Further, *issue management* is a discipline in its own right and includes not only vetting



current issues to determine which are candidates for action, but also evaluates what emerging issues are arriving, what issues are escalating or diminishing in importance, and employs predictive analytics to uncover future potential issues.

What is a Portfolio?

Portfolio - a very necessary concept and management tool in a world of complexity, constant change, and uncertainty. What is the meaning of this term? Actually, it has many meanings and many applications depending on the *context*. An artist, or painter, will maintain a portfolio of creations and will present that portfolio, or parts of it to a prospective buyer or promoter in order to demonstrate the artist's scope of experience, interpretation, diversity and ability. The artist uses the portfolio to organize and manage his/her creations.

A museum curator will develop a "collection" of art, sculpture, furniture, instruments, or any number of "artifacts" from the past in order to provide an understanding and appreciation of history and human creativity. The portfolio is used by the curator to organize and manage collections and inventories of artifacts within those collections.

A financial investor maintains a portfolio of financial investments to organize and manage types of investments and associated risks with those investments to ensure the portfolio's return reflects a balancing of their risk profile and their investment goals. The investment portfolio ensures diversity and removes unwanted redundancy.

Originating issues and intent are often implicit in these types of portfolios. However, originating issues and intent must be explicit in the public sector because their formulation and expression often determines the acceptance of the portfolio's reason for existence.

Key words related to PORTFOLIO are collection, artifacts, issue understanding, risk, return, goals, balance, evaluation criteria, selection, removal, status, coordination, comprehensive view, dynamic, everchanging, governance, management, and anticipation.

State government, as well as other types of organizations, have many portfolios or "collections." These include: constituents, special interests, outcomes, risks, opportunities, threats, goals, objectives, financial investments, mandates, roles, responsibilities, assets, services, obligations, revenue streams, theories, experiments, principles, standards, best practices, partners, laws, policies, regulations, programs, skillsets and technologies. EPM is essentially the virtual "situation room" providing a view into the enterprise organized through employing the enterprise architecture. The enterprise architecture provides the framework as well as the inherent methodologies and standards for delivering and operating components of the architecture.



Enterprise Portfolio Management is the ultimate dashboard or mission control for observing all components of the enterprise. EPM turns "enterprise architecture" into a *verb*. Are we really at this stage yet? No - we're not there yet - but we will have to make progress toward that kind of reality.

Capabilities in EPM technologies and discipline are quite advanced and continue to mature just in time for state government



to begin to leverage these capabilities in a time of accelerated change and transformation. A mission control capability will become more and more necessary as we move into the future with more sophistication in evaluating threats and opportunities; more options for delivering solutions; more diversity in inter-agency and cross jurisdictional arrangements; more types of cloud services.

Following are examples of portfolios. Each of these are model elements of the enterprise architecture.



Examples of State Government Enterprise Portfolios - Elements of Enterprise Architecture

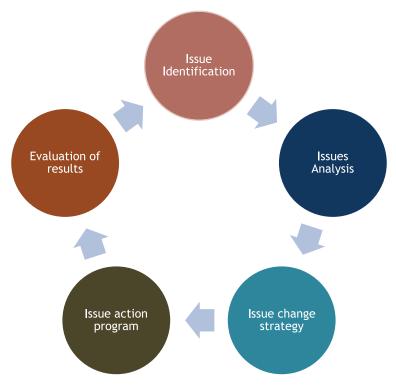


Start with Business and Social Needs (aka Issues Management)

The driver of all other portfolios that causes the discussion and debate regarding any of the other portfolios is the portfolio of issues or originating issues. These may be termed business and social needs in alignment with the purpose of government. Precipitating events and circumstances at the global, national, regional, or local level trigger response by countries, governments, industry, non-profits, and individuals. These can include natural disasters, change in governments, depressions, recessions, new technologies and innovation, new markets or new entrants into existing markets and a myriad of other such events. On the individual citizen level precipitating events and circumstances can be termed life events that include births, deaths, illness, marriage, starting education, completion of education, accepting a new job, leaving a job, unemployment, loss of resources, loss of health, falling victim to a crime, defending a victim, a car accident, an injury, opening a business, selling a business, paying taxes, applying for a professional license.

Deliberate Issue Management

Issue management as a formalized discipline is described by some experts as originating in 1977 with the first issue Management Process Model. The term "issue management" may have first been formalized by Howard Chase in 1976. That model is rendered in a graphical fashion here:



NASCIO Rendering of the Issue Management Council's Original Issue Management Process Model⁵

ISSUES IN STATE GOVERNMENT:

economic growth educational reform emergency response energy environment healthcare homeland security immigration over crowding of prisons prescription drug monitoring public safety states rights transparency and accountability transportation infrastructure unemployment workforce



The Issues Management Council defines an issue as follows:

"Think of an issue as a gap between your actions and stakeholder expectations. Issue management is the process used to close that gap."

Teresa Yancey Crane, Founder of the Issue Management Council⁶

We will use this graphic as a reference point here and in future research. This thought process should be at the front end of any enterprise portfolio management discipline. It should also be understood that issues management is a dynamic, fluid process. New issues will arrive. Some will simply go away. Others persist and must be addressed. There must also be a vetting process or stage gate in place to determine which issues are going to make it to the "take action" category. Any vetting process requires an appropriate set of criteria that are relevant to that "class" of issues. Some issues will require policy level action. Others require business process change. Some require technology solutions. Some will require merely the effective execution of existing processes. Some will require modification of existing processes. Other issues will require whole new business models.

In the process of addressing issues, business needs and social needs, societies must first gain sufficient understanding of underlying cause-effect relationships. Without that understanding, the wrong problem will be addressed, or the wrong solution delivered. With that understanding societies must determine the probability and magnitude of *impact* of an issue and judge what constitutes an effective *response*. Given limited resources, originating issues, business needs and social needs must be prioritized against some set of quantifiable and qualitative criteria in order to score, rank, and prioritize as well as understand the interrelationships of needs. In addressing those needs that rise to the top, investment alternatives must be authored and evaluated through various means (such as scenarios, business cases, economic evaluation, gaming theory) to maximize business value and outcomes, minimize risk and orchestrate delivery.

The critical message of this issue brief is that enterprise portfolio management is an essential management tool for leading, managing, and executing within a government enterprise. Further, that the first order portfolio government must understand and manage is the issues portfolio, or the portfolio of business and social needs. That portfolio drives all other action. Rarely do issues stand alone. Issues are related to other issues. Business and social needs are related to other needs. Further, in today's environment it is often impossible to separate business and technology. Technology issues can be an integral part of business issues. One example of this is *bring your own device* or BYOD. Is BYOD a business issue, a personnel issue, a policy issue, a training issue, a tax issue, an access issue or a technology issue? The answer is YES - all of the above.

LIFE EVENTS

births deaths illness marriage starting education completion of education job loss loss of economic resources loss of health falling victim to a crime defending a victim involvement in a car accident a workplace injury an emergency room visit opening a business selling a business applying for a professional license



Inspection of any of the portfolios presented earlier must also bring up the dimensions of time, relevance, inter-dependencies, and effects. In general nothing stays the same for very long. New issues arrive or are created which then impact a multitude of portfolios or collections requiring active management that includes understanding inter-dependencies and effects of change.

If the reader has now arrived at a point where you observe - "there is more to public sector portfolios than I imagined!", then this introductory discussion has achieved its intended purpose. The reader is correct. There is a "portfolio of portfolios" that is too much for the human brain to comprehend or manage - that is, without some help. This is where the portfolio manager comes in and the discipline of *enterprise* portfolio management which provides a view, or views, through the enterprise architecture to the enterprise and encompasses best practices, methods, procedures, analysis, business processes, knowledge, skills and technologies.

Enterprise Portfolio Management and Enterprise Architecture

The first application of portfolio thinking has been in the realm of project management. The message of this issue brief is that EPM is more than portfolios of projects. The intent is that the *right issues* are first evaluated and selected, then the right projects are framed and provisioned that execute the strategic intent of the enterprise regarding those issues or needs. In state government that intent originates with its citizens. Based on civic engagement, strategic intent in state government is established by the state legislature through statute. Strategic intent for a state administration is developed by the governor in alignment with state statutes and additional input from citizens. Additionally, the federal government can establish intent through federal mandates including regulations. Strategic intent for state agencies in created by agency executives in alignment with the governor's strategy and the purpose of the agency - and ultimately in alignment with state statutes. Ultimately, all of this alignment goes back to, and must not conflict with the state constitution, the US Constitution, the Bill of Rights. All of this alignment is intended to deliver results in response to the demands and expectations of citizens. Effective enterprise architecture ensures that alignment or traceability. Enterprise Portfolio Management works together with enterprise architecture to ensure and maintain that alignment for any management initiatives, programs, and projects; and the ongoing governance of such initiatives as they flow through the development pipeline, implementation, change management and sustainment.



There must be justification or rationale for undertaking any management initiative, program, or project. That justification begins with *strategic intent* as described.

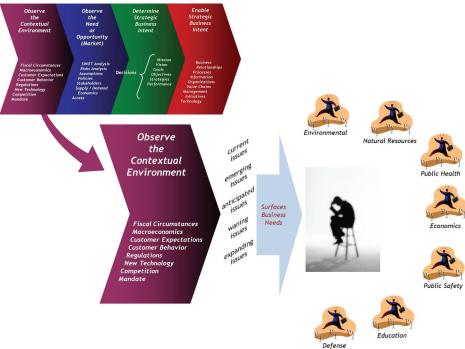
Strategic intent answers the questions within proper context:

- what outcomes do we want?
- why do we care?
- what are our priorities?
- what will we achieve?
- who will benefit?
- what will it cost?

Management initiatives, programs, and projects answer:

- how will we do this?
- where will we do this?
- when will we do this?
- what resources can we devote to this?
- how well does this endeavor relate to our priorities?
- what capabilities are required?
- how do we acquire these capabilities if we don't have them?
- how do we use these capabilities to effectively and efficiently achieve the outcomes we desire?

NASCIO Enterprise Architecture Value Chain



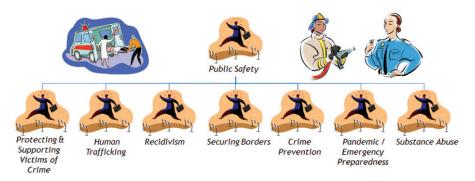
Enterprise Business Needs Organized into Portfolios of Business Needs⁷



Each of the depicted business needs in the figure above expands into a more detailed business need portfolio.



Expansion of the Public Health Issues Portfolio



Expansion of the Public Safety Issues Portfolio

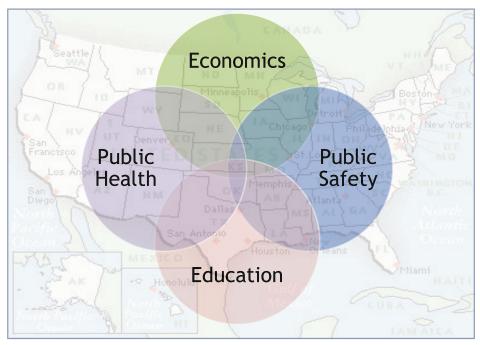
Noteworthy is the fact that the issues or business needs *within* a portfolio <u>overlap</u>. Further, the portfolios presented here as examples demonstrate <u>overlap</u> across portfolios.

- Intra-portfolio relationships: within the public safety portfolio, recidivism and substance abuse are inter-related.
- Inter-portfolio portfolio relationships: substance abuse is a public health issue as well as a public safety issue.

Further, substance abuse is related to *economics* - global and local, and *education*. For example, economic circumstances can lead to unemployment. Unemployment contributes to substance abuse. Substance abuse has dire health outcomes. If substance abuse expands across a population, we have a public health issue. Substance abuse can lead to an increase in crime. So, economics affects both public health and public safety. There is a deliberate co-dependency in these three aspects of life. A fourth area is education which touches all three of these in a variety of ways. Some people are laid off or fired because they lack the skills, knowledge and experience needed for new activities driven by changes in the economy. These people essentially lack the education and training in necessary capabilities required in the new or burgeoning



economy or the enterprise for whom they were employed. And the employer lacks the ability to update the skills of these people. The actual entry points into the issue of substance abuse can be any of these *public sector spheres*: public safety, public health, economics or education.



Inter-related Public Sector Spheres

There are many cause-effect relationships within and across these four public sector spheres that actually become quite complex. An understanding of these relationships, or *discovering* the relationships, is critical to strategy development and execution to ensure policy makers, strategists, management, and citizens are well aware of secondary and tertiary effects in advance of launching management initiatives, programs and projects. Secondary effects of poor or inadequate strategy may create even worse circumstances for citizens or certain populations of citizens. It is imperative that an enterprise approach is applied during strategy development to ensure a well orchestrated execution involving all related agencies and jurisdictions. In the example above public health, public safety, economic development and education must work together as single enterprise.

Potential strategies must be modeled, tested and evaluated using appropriate *predictive analytics* before commitment is made in pursuit of any goal or objective - that is, what effects and what new issues and related business needs arise as a result of a particular course of action.⁸ That testing and evaluation must be *unbiased* - that is, take into account all interested parties and ensure strategic alignment. There must not be undue influence on a course of action from any special interest group or solutions provider or policy maker. Such evaluation must include understanding of the impact on all sectors of society, all citizen population groups, all relevant economies.



This evaluation must take into account the values and beliefs of society - i.e., the citizens government is supposed to be serving. That requires engaging the citizenry and knowing what is important to them - and what is most important. Citizens have deep beliefs about what life should be like in *this* country. It is important to engage citizens directly to learn their beliefs. Those beliefs drive ambitions, concerns, morals and values which in turn drive society and the principles, goals and objectives articulated within a society's economics, education, public safety and public health.

Therefore, engaging citizens and understanding what their priorities are is emphasized here because that is at the heart of any society, government, management initiative, program or project. That is, the belief system embraced by our society of citizens that government is in place to serve. In this country, government is by the people and for the people - a very different, very unique situation as compared to the rest of the globe. That underlying standard must permeate all endeavors undertaken by government. That belief system will drive and guide government priorities and investment. There are historical documents that clearly articulate the foundational belief system of citizens and the role of government - its powers and its limits. These documents include the US Constitution, the Bill of Rights, and the constitution of every state. At a minimum, every management initiative, program and project must be in alignment with the sentiment and intent of those documents which form the foundation for everything else. Every policy maker and every government executive is required to support and uphold that foundation. Why is that emphasized here? As a reminder. These documents should be read frequently, defended, and referenced. It also presents the importance of enterprise portfolio management and enterprise architecture in ultimately ensuring traceability back to foundational strategic intent.

Summary

Portfolio management is an essential management tool for leading, managing, and executing within a government enterprise. Effective government will need to enlist the notion of portfolios and the active governance and management of those portfolios in order to deliver positive outcomes for citizens. The role of the enterprise portfolio manager is critical and the presence of that role provides evidence of effective portfolio management. Enterprise architecture has a direct and deliberate relationship to portfolio management for ensuring alignment to strategic intent. EPM turns enterprise architecture from a noun to a verb. The portfolios of issues / business needs will need to evaluated and prioritized against some set of criteria. The enterprise portfolio will continually change. There is an ongoing challenge to manage the portfolio to avoid unintended consequences, to avoid redundant effort and investment, to help orchestrate appropriate collaboration across government and to effectively manage resources. This requires the testing of ideas before resources are committed to any course or action. That testing is



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conducted through the employment of predictive analytics. Enterprise portfolio management provides the "situation room" for visualizing, understanding and managing the balance beam between demands - *originating issues* - and supply - *existing and newly required capabilities*.



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RESOURCES:



Issue Management Council (IMC)

The Issue Management Council (IMC) is the professional membership organization for people whose work is managing issues and those who wish to advance the discipline. This site includes case studies and publications on best practices. http://issuemanagement.org/



The Enterprise Portfolio Management Council (EPMC) is a nonprofit organization whose goal is to support and accelerate the development of Enterprise Portfolio Management processes, tools, and techniques for the betterment of shareholder value. Portfolio management, though still in its early stages of maturity, can help corporations gain a

competitive advantage by improving efficiencies, lowering costs, and increasing the return on internal investments. With hundreds of billions of dollars spent each year on internal projects and programs, portfolio management offers the potential for vast savings. http://www.theepmc.org/About.html

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NASCIO Technology Awards Archive - IT Project and Portfolio Management - see www.nascio.org/awards.

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FOOTNOTES:

- ¹ 2013 State CIO Survey, *The Enterprise Imperative: Leading Through Governance, Portfolio Management, and Collaboration*. NASCIO, TechAmerica, Grant Thornton. Available at www.nascio.org/publications.
- ² NASCIO State CIO Top Ten for 2014 available at www.nascio.org/publications.
- ³ 2013 State CIO Survey, *The Enterprise Imperative: Leading Through Governance, Portfolio Management, and Collaboration*. NASCIO, TechAmerica, Grant Thornton. Available at www.nascio.org/publications.
- ⁴ An excellent example of integrated issue management is the Kansas Legislative Information Systems Services (KLISS). KLISS incorporates the concept of a "time machine" providing a complete view of legislation in the state of Kansas providing a complete picture including the initial issues, argument, discussion that precipitated the legislative process. This information provides the necessary background and understanding to ensure the alignment of management initiatives, programs and projects that deliver on the original and current intent of a statute. This provides the necessary information to guide courts in establishing precedence and agencies in issues regulations. http://www.nascio.org/awards/nominations2012/2012/2012KS9-OpenGovt-KansasNASCIOSubmission-06012012.pdf
- ⁵ See text description of this model at http://issuemanagement.org/learnmore/origins-of-issue-management/.
- ⁶ Clarification of Terms, The Issue Management Council. Retrieved on September 17, 2013 from http://issuemanagement.org/learnmore/clarification-of-terms/.
- ⁷ The NASCIO Enterprise Architecture Value Chain has been presented in detail in previous NASCIO publications including it Enterprise Architecture ToolKit Version 3.0. Also see:
 - Do You Think, Or Do You Know? Part II The EA Value Chain, The Strategic Intent Domain, and Principles. www.nascio.org/publications
 - Transforming Government through Change Management: The Role of the State CIO
- ⁸ See NASCIO's Series on Analytics, *Do You Think, Or Do You Know?*. www.nascio.org/publications.



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