LOOKING TO THE FUTURE

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Challenges & Opportunities for Government
IT Project Management Offices

NASCIO

Representing Chief Information
Officers of the States
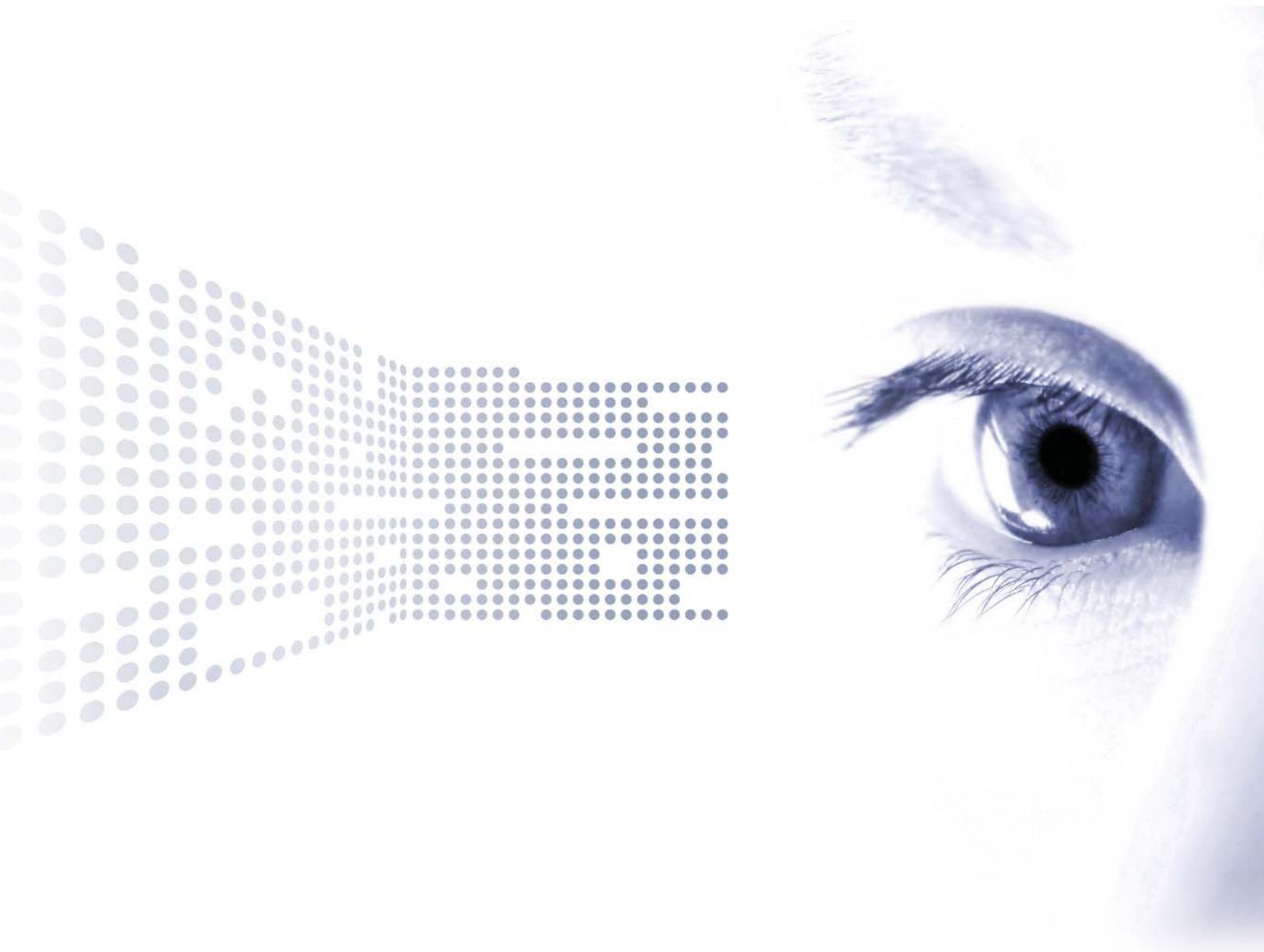
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EXECUTIVE SUMMARY

In 2005, NASCIO formed an IT Project Management Forum to discuss the role of state project and program management offices (PMOs). This group facilitates a monthly series of state conference calls, discussing a wide variety of issues including root causes and unique challenges facing government IT projects. Participation has been very strong, with nearly every state in the country having some involvement with the working group. On average more than forty percent of the states are represented in any given monthly PM Forum call. A variety of strategies and best practices have been discovered, along with a shared understanding of the evolution of the PMO, its mission, structure, processes and standing within the organization.

Perhaps the most important finding of the PM Forum is a common belief that PMOs may offer the single greatest hope for improving the value of services delivered by state governments to their constituents. Most improvements within organizations are delivered through projects. In short, executing the right projects well maximizes the value of taxpayer investments. PMOs offer a unique view of the organization, its people, its processes, and its technologies. PMOs span entire organizations, providing single points of leverage across an organization's entire portfolio of projects. Many of these projects offer a unique opportunity within state government to pull together cross-functional and even cross-agency teams to execute the vision and strategies of executive management in order to create the value promised by taxpayer investments. Clearly project management and PMOs are an exciting and rewarding place to be within state government!

Notwithstanding this opportunity, there are a number of very real challenges which can impede or limit project success in state government. Many PMOs continue to struggle with articulating their own value proposition and aligning the PMO mission to the evolving maturity of the organization(s) it serves. There continue to be significant gaps in project management and delivery skills.

Governance structures with poorly defined decision rights, differing political agendas, and cultural sacred cows can create an environment rife with so much conflict that it is difficult to complete even simple tasks. Combine these items with inefficient government planning, budgeting and procurement processes and one begins to ask—can PMOs be successful in government at all? Many of these challenges are beyond the scope of control. The PM Forum has discovered a number of strategies and best practices proven to be successful in several states that address several of the top state government challenges. Primary challenges are summarized as follows:

- Portfolio Management & Strategic Planning
- PM Skill Maturity
- Political Risks
- Structures/Organizations
- Procurement Processes/Rules
- Government Funding Models & Spending Cultures

It is important to note that there is no one best practice, but rather a collection of strategies which have proven to be successful in at least one state organization. That success does not necessarily mean that any particular strategy will work in any state organization. The parameters of any given situation need to be considered and incorporated into the approach that a state would use to achieve its specific objective. Furthermore, these strategies and best practices will evolve over time—and your contribution is encouraged. The PM Forum is open and available to all NASCIO state members. Please feel free to contact Stephanie Jamison at sjamison@amrms.com with any questions or suggestions you may have to further this discussion.

Project and program management has been a hot topic for many years and in many sectors. The reason is simple: organizations invest a lot of money into projects with the expectation of realizing value, on time and within budget. Unfortunately all too often these projects fail to deliver on these expectations. Project problems are particularly well known in areas surrounding information technology (IT) investments, and government in general. There are numerous studies that have quantified project failure rates ranging from 50-70%.[1] But there is good news, project success rates are up![2]

There are many reasons for the improvement in project outcomes, ranging from improved project management and delivery methodologies, training and tools to the institutionalization of project and program management offices whose entire mission is to improve project outcomes. Many people would argue that the single greatest contributor to this improvement is the Project Management Institute (PMI), which has published a vendor neutral body of knowledge and provides training, certification and a community of best practices for project managers. For the first time, project and program managers now have a common language, career path and universally recognized certification as professionals in their field.

While there is no doubt that the PMI, along with the hundreds of tool and training vendors and thousands of published white papers on project management have all contributed to the improvement in project outcomes, in the end it is the organization and individuals who own the project and its delivery who are ultimately responsible for success or failure. The community at large provides knowledge, insight and best practices as inputs to individuals who must assimilate this information and incorporate it into their organization, culture and behaviors. With such a great body of knowledge and information on project management available, the question arose as to why the National Association of State Chief Information Officers (NASCIO) would desire to undertake the development of a white paper on project management in state government? The answer is simple. There are few other opportunities in government service as ripe for cultural change as IT project management. In aggregate, states spend billions of dollars on projects with the same challenges and poor outcomes as general industry, however the administration of state government also introduces challenges and opportunities that are unique to a state government environment and may not be as well addressed in the broader community of knowledge. Rather than looking at the entire body of issues surrounding project management, the scope of this white paper will be to focus on the challenges and opportunities that the NASCIO project management working group feel are unique to state government.

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[1] While there are numerous studies on project success and failure, the reader may fund a summary of some of the studies on IT project failure rates at: http://www.it-cortex.com/Stat_Failure_Rate.htm

[2] There are several reports indicating an upward trend in project success rates, but perhaps the most well documented trend analysis can be found in the series of Standish Group's Chaos reports, available at: http://www.standishgroup.com/.

Fully realizing the role and value of a PMO is a challenge from its genesis throughout its evolution. Many states have implemented PMOs in order to improve project outcomes. Some are de-centralized, at the agency level, while others are centralized providing an enterprise view of project or program management. Most have focused on providing the training, tools, templates and standards necessary to support project management and delivery processes. The value of a strategic and standardized approach to project management must be quantified, evangelized, and demonstrated within the varying aspects of a state's organizational structure and throughout each level of its development. While mature PMOs also provide strong portfolio management capabilities insuring that the right investments are being made into the right projects which are executed successfully, few states have achieved successful enterprise portfolio management capabilities. According to NASCIO's *2005 Survey of State IT Project Management Practices*, most states are moving toward having an Enterprise/Statewide PMO structure in place. Out of 34 states reporting, 26 indicated they already have a PMO in some stage of development or operation. The state chief information officer (CIO) and/or a governing council make final decisions in regard to priorities for projects and staffing decisions for 82% of respondents; with CIOs responsible for "go-live" decisions for 79% of participating states.

A growing number of states are centralizing project portfolios via the office of the state CIO and enterprise/statewide PMO functions. Twenty-seven survey respondents (80%) had a project inventory and tracking process in place and a similar number are maintaining the inventory on at least an annual basis or more frequently. These states also rated their project evaluation, selection and prioritization process as well as their level of monitoring projects with multi dimensions of performance as about four on a six-point scale (six being highest). The majority of the states indicated that project management is included in the state's IT strategic plan

with one state rating their efforts as a six (proficient), eight states rating their efforts as five (ongoing, needs improvement) and only two states rating as one (no plans) with an overall rating of 3.86.

PORTFOLIO MANAGEMENT & STRATEGIC PLANNING

As PMOs are better established and institutionalized with state governments, they naturally evolve and service levels mature. In order to make the most of all resources (human and capital), states must take a holistic view of their overall strategy with IT plugged in as the enabling function. The numbers from NASCIO's 2005 survey and its corresponding summary, *Discipline Succeeds: Findings from the NASCIO State IT PM Assessment,* are strong indicators of efficiency. While they denote a growing trend, there is clearly an increased need for close alignment of state business goals with IT project management.

State CIOs and PMOs are integral to helping business leaders evaluate IT project proposals and align them with the strategic objectives of their state. As the strategy around the business and services of state government improves, PMOs naturally move into true enterprise portfolio management both at the agency and the enterprise/statewide level. A portfolio management program and associated strategic planning component, resource investments and business implementation plans—supported by current, planned and proposed IT projects—allow full orchestration and optimization. Efficiency demands this approach as organizational necessity. Moreover,

> *As the strategy around the business and services of state government improves, PMOs naturally move into true enterprise portfolio management both at the agency and the enterprise/statewide level.*

effective portfolio management demands a foundation of enterprise and agency strategic planning.

PMOs are often best equipped to formulate a portfolio management structure and program, calling into existence one or more advisory or approval boards to deal with the data collected and recommendations brought forward by the PMO. Thus, they begin to "manage" the agency or enterprise portfolio.

A first step in setting up portfolio management is an inventory of all projects together with all the desired current metrics and status. This only allows oversight of individual projects however, and does not necessarily enable enterprise decisions on a portfolio of projects. True enterprise decisions should address people resources, projects, hardware and software, application resources, project dependencies, as well as mandatory and regulatory requirements.

Challenges

There are many challenges inherent to portfolio management and strategic planning. Think first of portfolio management, and consider the following fundamental superset of elements:
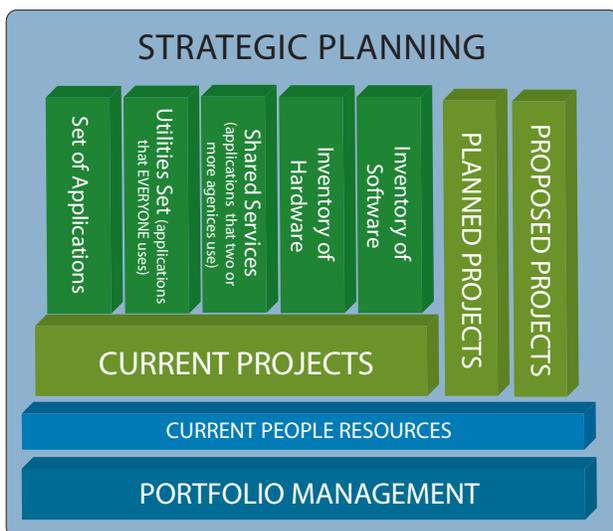
As one begins to look at this inventory of information, some immediate challenges come to light:

- *Aligning with leadership priorities* - What are the current strategic objectives at this agency...or at the enterprise level? Do current projects support leadership priorities?
- *Ongoing support from project sponsors* - Does the sponsor provide needed support and continual follow-through to project completion? This is a critical question given changing leadership every two-four years.
- *Doing wrong projects* - Projects that do not support agency or enterprise strategic objectives can litter the mix and put off funding for more strategic or practical solutions.
  - o …*Unplanned projects* - Projects that spring up and are funded without a portfolio view can deflect the best interest of limited investment monies. Oversight is needed to determine if these projects are truly needed.
  - o …*Mandated projects* - Again, these may alter priority decisions. Whether known or unknown, they can use up funding for projects that were previous priorities. Portfolio management aids decision-making.
- *Planning for resources* - Staffing costs are often over-looked and are sometimes hidden in re-distributions. It is also sometimes difficult to validate a project's potential/viability with corporate partners, but it is always necessary.
- *Defining scope* - Without proper scoping and requirements, providers (corporate and internal) can build "x" when "y" was needed. Also watch out for enhancements/additions.
- *Managing stakeholder expectations* - Client assumptions affect estimating and mutual satisfaction/understanding of the project.
- *Articulating benefits of PMO* - The PMO and its responsibilities are always under the watchful eye of detractors. Making the case for establishing and sustaining an effective PMO is a significant challenge for it is a relatively new discipline in government whose role is evolving as an oversight organization. Careful and

continual education and communications is a hallmark of a good PMO.

- *Addressing stovepipe organizations* - The nature of these organizations when taken as an enterprise will expose processes, policies and procedures that must be overcome and interfaced in order to operate in an integrated, enterprise manner.
- *Aligning with budgeting and planning processes* - This is the biggest challenge (and goal) of a true portfolio management initiative at the enterprise level

Strategies for Success

- **Introduce portfolio management slowly.** It is an excellent goal, but fundamental PM structures and assessments must be in place first.
- **Support establishment of a portfolio management (or formal PMO) process within individual agencies.** Each agency will ultimately define further portfolio categorization depending on their specific line of business. Make sure each agency is prepared to supply the appropriate information to the governing board or body responsible for PM governance and enterprise portfolio management.
- **Require every project business case to define how the project supports** an agency's business goals as well as **enterprise goals**.
- **Measure the value of the alignment of project(s) to the business strategy** of the organization on an ongoing basis and report results to stakeholders. Allow for and emphasize executive focus.
- **Institutionalize formal organizational change management** process. This is vital to success.

Best Practices/Case Studies

Fully integrate statewide IT strategic plans with agency planning:

- Minnesota's newly-empowered state CIO recently developed a new IT strategic plan, which is shared with agencies every year to aid in the development of individual agency IT plans. These plans support the enterprise IT plan and incorporate the agency's business strategic plan.
- Michigan's business case process is a good example of this practice. Dan Buonodono, PMP for Michigan's Department of Information Technology describes integration of statewide IT and agency planning as follows: "Since our entire strategic planning process focuses on strategic alignment between business goals and new automation initiatives, by the time the project team gets to the stage of completing a business case, most all of the analysis has already been discussed and documented with regard to strategic alignment. The process of completing the business case helps the agencies determine what that alignment is (to their strategic goals) by making the project team go through the analysis, ensuring agreement with senior management's strategic goals and objectives. Although our department requires a business case to be completed for all of our large ($1 million+) projects, we do not validate their data as far as the linking of these projects to their agency business strategic goals however."
- See Appendix for a list of other state IT strategic plans and PMO websites.

Require business case documents to link information technology projects to the strategic goals of agency business. A few examples:

- South Carolina has similar requirements and a business case template for project sponsors. All state agencies are required to develop information technology plans and submit those plans each year by October 31st, for the upcoming fiscal year, to the IT planning office in the division of the state CIO for review and evaluation. These plans are to include a listing of all technology activities including operations and any new projects having a cumulative cost in excess of $50,000. The IT Planning Office will complete its evaluation of these plans by early January and return the results to the submitting agencies.

All proposed technology projects submitted to the IT planning office must be supported by a business case analysis. This business case analysis for all major, multi-agency and enterprise technology projects (as defined in the IT project management policy) must be completed using the state's business case template. The analysis must document how the proposed project will produce greater efficiencies in agency processes, provide better services to agency clientele and/or citizens, and/or result in a substantial return on investment to the agency. The study must also indicate the source of the funding for the project.

- The CIO of Rhode Island has rolled out a statewide IT strategic planning process, with each agency IT manager responsible for the development of an IT strategic plan for their agency. Each agency IT manager has received training on strategic planning and project portfolio management. In addition, the CIO has implemented a project review process which includes an alignment of the project's business case to the organization's strategic plan. Projects with redundant or related deliverables have been combined or teams have been encouraged to collaborate and share various tools, techniques, and technologies.

Calls to Action
- ☐ Make sure portfolio management and strategic planning processes go hand-in-hand in order to anticipate the impact of mandated projects and how they will affect the enterprise.
- ☐ Establish strategic goals for the state and clarify for individual agencies. These agencies must then show how their projects support the state's strategic plan.
- ☐ Align information technology projects to enterprise/statewide solutions. This should be a primary objective for all of state government. Findings from the 2005 NASCIO State IT Project Management Assessment show that many states are working with linking their

project/portfolio management with the states program objectives but low ratings show the need for improvement in this area.

PM SKILL MATURITY

The need for trained, professional project managers has become increasingly evident. Managers in government are continually challenged to deliver a larger quantity of increasingly complex projects in less time with fewer resources. One significant factor in realizing these goals is to greatly improve project management capabilities. The need for professional project management continues to grow as project life cycles become shorter, project complexity increases, the number of concurrent projects increases, a greater degree of interdisciplinary work is required both within and across agencies, and quality issues increase.

Challenges
- *Acknowledging project management as a unique profession* - Building the breadth and depth of knowledge in the numerous disciplines necessary to consistently lead successful projects, requires dedication to project management as a profession. Governments need to establish titles and job series to recognize this trend. Acknowledging the profession will increase the commitment of individuals to gaining and growing their PM skills.
- *Redefining success* - Plan for implementation and transition. Is a project successful if it delivers the product but no one uses it? In an October 2005 NASCIO project management report entitled Discipline Succeeds, 79% of states surveyed indicated that the lack of organizational change management contributed to the failure or delay of IT projects. IT has long ignored the needs of the end-user in preparing to accept new IT products. Transitioning the new products into the user community needs to be included as part of project planning, addressed throughout the project, and defined

as a success factor of the project.

- *Defining scope & control* - Defining, documenting, and agreeing upon the contents of a project is crucial. Changes to scope must also be documented and agreed upon in advance. IT professionals have a tendency to "gold plate"—add features they think are nice—whether the users have agreed to them or not. End-users have a tendency to state vague requirements. Scope creep causes project failure. Controlled scope changes result in a successful end product. Change control processes must be standard.
- *Developing soft skills* - IT often values only technical, "hard" skills. However, soft skills including communications and team building are critical to project success.   As documented in Daniel Goleman's first book on the topic in 1995, *emotional intelligence* is linked to important work-related outcomes such as individual performance and organizational productivity. Projects on aggressive schedules require very hard work, often under stressful conditions. The project team's ability to work together based on a foundation of trust and mutual respect for individual roles and responsibilities is the key. PMs must build that foundation.
- *Relying on contractors* - Without the required skill on staff, or the ability to attract, hire and retain these skills, some governments become reliant on contract PMs. This may provide short-term wins but can lack long-term strategy. Contractors may meet project goals, but often have no long-term responsibility or commitment to improve the processes required to sustain project success.

Strategies for Success

- **Provide training.**   The demand for skilled, professional, project managers has exceeded the number available in the government sector. Provide ongoing training at a variety of levels (beginner, advanced, expert) in all the areas of project management (communications, scheduling, cost control, etc.)

- **Require PM expertise in contractors.** Include project management proficiency in the evaluation of vendors selected to do work. Are they credentialed? Do they have formal project management coursework? Require contractors to use your PM methodology, if you have one. Do not continually adjust your work practices to meet the methods of your corporate providers.
- **Leverage pockets of PM expertise.** Identify the expertise where it exists and find strategies to share it across the enterprise. Agency skills are often polarized making it difficult to address supporting resources from a statewide view. Capitalize on agency expertise while supporting consistency across the enterprise.

Best Practices/Case Studies
Recognize project management as a job title and a career path:
- Delaware is able to pay market-competitive salaries as their IT PM positions are now exempt from standard government pay scales.
- New York has recently established a four-level project management title series.
- Oregon has established a project management position classification with three positions in this series—Project Manager 1 (classification # 0854), Project Manager 2 (classification # 0855), and Project Manager 3 (classification # 0856).
- South Carolina has recognized IT PM as a profession within state government with corresponding job titles and career paths.

 Formally and actively share PM best practices:
- Rhode Island meets regularly with local corporate (non-vendor) PMOs and hopes to meet soon with other states.
- New York has a community of practice group for project managers. More information can be found at the New York State Forum Rockefeller Institute of Government standing committee on project management site.
- SCOPE (South Carolina Organization for Project Excellence) actively shares best practices.

- Nevada has a state PM forum and a PM newsletter.

Conduct training programs:
- Oregon has more than 700 graduates (since 1998) from state and local government from its project management certification program (OPMCP) offered through the department of administrative services. OPMCP now consists of 15 days of classroom training through six workshops and students must pass a final exam to gain certification. Many graduates have completed PMP certifications as well.
- South Carolina has a multi-tiered project management and certification program.
- New York offers a project management mentoring program (PMMP) which includes 15 days of classroom training for interns, five days of structured intern-mentor practicums, and 15 hours of one-on-one mentor-intern time. North Dakota also has a similar program. A review of both programs will serve as the focus for the November 2006 PM Forum conference call. Presentation materials are available at this link.
- Nevada carries out state sponsored/supported training programs for PM conducted by a preferred vendor who provides PMI-recognized Project Management, MS Project, Advanced MS Project, and Leadership & Communication classes. Classes have been offered to all state agencies and have been quickly filled saving time and money.

Calls to Action
- ☐ Establish a professional career path for project managers.
- ☐ Establish a recruitment and training program to attract project managers as part of workforce succession planning.
- ☐ Establish statewide PMOs to serve as centers of excellence.
- ☐ Provide standard, affordable, highly available PM training to all agencies.
- ☐ Establish peer review and best practice work groups for IT PM.

☐ Establish standard PM methodology for use across government entities.

POLITICAL RISKS

Politics are a simple fact of life, especially in state government, and can increase project risk immensely. Successful government project management requires understanding differences between statutes and executive orders, assessing the impact of state executive management turnover, and preparation for press and public scrutiny. However, there are many questions to ask that will aid the political risk management process. Maneuvering through these roadblocks can reduce political risk and increase project success.

> *Preparing for and understating the impact of executive management turnover can be the difference between project success and failure.*

Challenges
- *Interpreting statutes vs. executive orders* - Legislative statutes and executive orders also impact government projects. Statutes and executive orders require improved governance structure, especially in cross-functional projects. Often times they require separate and different agencies and departments with different goals to collaborate together. In short, statutes and executive orders require strong processes and governance structures.

- *Dealing with executive management turnover* - Executive management turnover in government presents many challenges for project management. First, new elections bring changes in environments and goals. This can dramatically affect the resources and executive sponsorship in a project. Next, the project's importance must be re-sold to the new regime.

New executive management can bring different philosophies and priorities. In the end, preparing for and understating the impact of executive management turnover can be the difference between project success and failure.

- *Working in the spotlight* - Media and public scrutiny is another political risk government project experience. Legislature mandates state agencies, and their project managers, to run programs and projects "like a business." This means that projects should be on-baseline schedule, on-baseline budget, and on-baseline scope. Many private firms have a success rate below 30%. Public sector project managers are expected to be perfect, with zero margins for error. This low tolerance is a key driver for government's "late adopter" approach to innovative technologies. Government simply can't carry high risk levels. As a result, government managers are sometimes unwilling to accept new technologies given the political environment.

Strategies for Success
- **Consider the larger government picture.** When undertaking a government project there are several question to ask and address with stakeholders:
  - o Is the project part of a larger political picture? The answer to this question will help assess the stakeholder groups and importance of the project.
  - o Does the project's timeline coincide with an election? This could cause extraordinary pressure to complete a project early or plan a project with little margin for error.
  - o Does the project budget represent a large amount of money that would cause the general public to be focused on it? Most people do not understand the impact of basic project issues and could react negatively to common solvable problems.
  - o Will the project timeline cross administrations? Knowing this will enable a proactive approach to educate a new administration on the new project.

Best Practices/Case Studies
- Foster a network of support among peers within your state and participate in NASCIO's national IT PM Forum. Shared insight can help all involved be more proactive and learn about potential risks. Experience aids navigation through the political barricades ahead.
- Cultivate relationships with project stakeholders at all levels. A straightforward, but diplomatic approach can turn adversaries into advocates.
- Communicate progress to stakeholders honestly and consistently, for better and for worse. Remember your audiences' stake in the process.
- Rhode Island has created a capital projects governance structure with representation from a number of key state agencies, the division of information technology, and the governor's office. This governance body enhances communication and reduces political risk on critical IT projects, as key stakeholders who may have conflicting priorities now have a venue for resolving outstanding issues.

Calls to Action
- ☐ Understand that political risk is common in all government projects.
- ☐ Recognized the differences between statues and executive orders.
- ☐ Assess impacts of state executive management turnover.
- ☐ Prepare for press and public scrutiny can help reduce those risks.

STRUCTURES/ORGANIZATIONS

The organization and structure of a project management office is often viewed as an early step in a decision to formalize or institutionalize project management within the government setting. However there are several important authorities, processes and procedures that should be clearly defined and embraced before the most effective

organization and architecture for any project management office can be determined.

Challenges

- *Determining what is to be changed by the creation of a PMO or enterprise project/portfolio management office (EPMO)* - Is there a clear understanding of what "points of pain" are causing the consideration of creating a PMO and what the PMO is expected to do about them?
- *Determining an appropriate organizational structure* - Frequently, PMOs are formed with simply a charge to define and implement a project management strategy for the agency or organization and support it with an effective technical architecture. However, the organization and supporting technical architecture cannot be implemented successfully without clearly defined processes and procedures for enabling the desired, effective project management discipline. In short, the "how" guides the "what."

> The "how" guides the "what."

- *PMO or EPM?* - Many articles have been written about creating a PMO or enterprise project/portfolio management office. In the government setting, a critical question is often, "Where is the central state government leadership for the promulgation of project management discipline to be located?" How this question is answered and the process for securing the answer will impact the overall success of your PMO or EPMO.

Strategies for Success

- **Have a clear understanding of the problems the PMO is to address.** This is one of the first steps in the project of creating a PMO—and it is a project. In the government setting, a PMO can be created to improve communication, to provide accountability, or to standardize processes just to name a few reasons. Whatever the reason or reasons, stakeholders need to know what problems are being considered and what approaches are being proposed to address those problems. Creating a PMO using a stakeholder group for guidance from the very beginning can be very effective.

- **Align PMO and enterprise architecture strategies.** PMO organization and architecture should be responses to: (1) the agency's or organization's dedication and commitment to project management as a effective and essential management strategy; (2) the development, adoption and commitment of the organization to well-defined project management processes to execute the strategy, and (3), the use of "best value" functional tools to support clearly defined project management processes. A process-driven approach to both organizing and enabling the PMO allows you to organize, recruit, hire and develop your PMO in response to clearly defined processes, procedures and objectives and to use your existing IT infrastructure and "best-in-class" vendor offerings to support your PMO needs.

- **Study and understand your government culture.** What type of office is needed? Centralized or decentralized? Also, research historical, successful change initiatives and determine what type of approach worked successfully in the past for your state and others. The types of endeavors to study could include the Y2K transition, quality program implementations, such as information technology infrastructure library (ITIL), or the formation of governmental communities of interest.

Best Practices/Case Studies:

A survey of 34 states supporting the NASCIO's *2005 State IT Project Management Assessment* asked:

- Who holds agencies accountable for compliance for the state's PMO? State responses range from accountability to the governor's office (15), state CIO (28), legislature (9), state budget office (11) to other governing body (18).
- Several states in the self-assessment ranked

their enterprise portfolio management efforts at the top of the scale: Colorado, Georgia, Kansas, Michigan, Missouri, North Dakota, Tennessee, and Virginia.

- In the majority of states (28) this role and responsibility has been established with the state's CIO that reports to the governor, legislature or other governing body.

Calls to Action

☐ Understand the culture in which the PMO or EPMO will be created.

☐ Verify the level of senior management support for discipline of project management.

☐ Identify and adopt a project management strategy using stakeholder input.

☐ Define project management processes to accomplish the strategy.

☐ Identify the technical tools to support the processes.

PROCUREMENT PROCESSES/RULES

It is widely agreed that IT procurements (hardware, software and technical services) are some of the most difficult state government project to manage. The whole process is a minefield of issues and obstacles: starting with initial documentation of requirements, across execution timelines, through communication of expectations, the creation of a legal vehicle in which to effectively engage a vendor, and continuing on to deliverables performance and final closure.

The professional discipline of project management provides for a number of methodical and conscientious processes in which to effectively navigate the hazards associated with procurement processes. Unfortunately, the gap most often lies generally in one or two areas. One is the skill of the project management function engaging in the IT project. State rules for procurement management relative to IT purchases and contracts are another. More often than not, the greater issue lies with the latter.

In addressing these issues project managers, along with procurement officers and vendors, must work proactively to anticipate and mitigate risks.

Challenges

- *Cycling in the procurement process* - Procurements vary and are unpredictable even on similar purchases. Time constraints are not transparent to project stakeholders. Unknown numbers of year-end volume, protests or even changes in rules can create a "black box" situation. High profile procurements take the best and brightest staff leaving the day-to-day projects with fewer resources to turn around the contracts. A prolonged process limits the vendor pool willing or able to engage the state in a contract. Activities associated with procurements occur in serial form; one problem creates a domino effect of delays and frustrations. Delays, appeals and prolonged processes can yield fines and other complications for the project sponsors.

  Project managers, along with procurement officers and vendors, must work proactively to anticipate and mitigate risks.

- *Defining adequate requirements up-front* - Procurements are often completed before all requirements are known, resulting in a fixed-price project contract with an incorrect scope. This makes it very hard to hold corporate providers accountable for quality deliverables. Statewide planning processes are inconsistent resulting in imprecise contract negotiations which often burdens the state with excessive contract spending. Rule limitations as to "what, where, when" of a purchase can be counter intuitive to the real needs of the project.

- *Controlling outcomes* - Deficiencies in vendor management mechanisms and managing relationships with corporate partners are often not addressed as part of the contract performance

protocol or state rules. Follow through regarding the success and implementation of the procurement at project administrative closure is often never seriously executed.

Strategies for Success

- **Focus on requirements and repeatable processes.** Implement methodologies for early emergence of requirements, and then prioritize discrete requirement items. Ensure these requirements are clearly stated in contract so to shape the project scope and deliverables. Ensure project management and vendor management training occurs for constancy and standardization of process.

- **Minimize unplanned time and risk.** Anticipate RFP process by engaging qualified vendors in discussing solutions before an RFI. This can speed up procurements through the vendors' normal business development process, thereby improving RFO responses. Lengthen the project planning cycle—assigning a greater risk factor for procurement functions. State the anticipated risk early in the business case development.

- **Define procedures and rules.** Project management must be addressed in the procurement process by ensuring the vendor assigns a qualified PM and established quality assurance procedures. Establish enterprise or statewide planning and contract negotiation to achieve economies of scale. Project managers and PMOs must foster strong relationships with their procurement and contract groups. Documented procedures help eliminate root cause issues through common expectations and visibility.

Best Practices/Case Studies

Align the steps of the IT procurement process:

- In South Carolina and Kentucky the procurement must follow a process starting with a business case then being vetted through the IT Planning Office, achieving architecture compliance and a provisioning of an experienced PM.

Once this process is completed, the initiative is ready for the RFP process. Exceptions must be appealed in a timely fashion, before the procurement takes place.

Understand the role of public-private partnerships as they affect IT procurement and delivery:

- See NASCIO's brief "*Keys to Collaboration: Building Effective Public-Private Partnerships*," developed by NASCIO's Corporate Leadership Council (CLC), which defines different types of public-private partnerships and provides a look at best practices and building blocks for success. http://www.nascio.org/nascioCommittees/clc/Keys_to_Collaboration.pdf

Conduct training for PMs and corporate partners regarding their roles in procurements:

- In instances where many possible solutions exist, a strategic partnership management and solutions-based procurement works well. South Carolina and Georgia host good examples of vendor training curriculums based on requirements.

- Project managers must have a strong understanding of procurement procedures and restrictions to effectively manage vendors. Certified procurement officers training and certification is recommended for assignment to large enterprise-level projects.

- Project managers should be mentored in contract and contractor management skills. Negotiation skills are an important aspect of successful project completion.

Standardize IT procurement management functions statewide:

- Minnesota, Tennessee and South Carolina have all created standardized statements of work or template to clarify the practices that the vendor should deliver.

- Implement an Agile Project Management methodology and provide augmented staff for smaller less complex projects to reduce procurement cycle time risk.

- Whenever state rules allow, tie vendor payments to milestones and deliverables.

Calls to Action
- ☐ CIOs and PMO leaders must work with those writing procurement laws and regulations to provide solutions which can be implemented without negative project impact.
- ☐ Create a corporate partner management function and provide training to PM staff on partner management using methodologies such as listed above.
- ☐ Conduct corporate partner training to open communications up front.
- ☐ Involve procurement early in the process.
- ☐ Earned value analysis and management should be further adopted by states.

GOVERNMENT FUNDING MODELS & SPENDING CULTURES

Projects of all sizes, particularly large enterprise projects, have overall track records that are less than desirable in terms of being completed on schedule, within budget, and meeting the requirements of the customer. Although there are a myriad of reasons that contribute to the overall success or failure of projects, the culture related to government funding and/or spending has been a significant contributing factor.

Challenges
- *Acquiring sufficient funding* - This challenge grows more complex as other government priorities compete for those funds. Moving forward with a large project that is "time-boxed" can introduce risks that will needlessly jeopardize its success. Additionally, proper cost management for expending those funds is oftentimes a challenge due to the sheer size, complexity and length of time required to complete the project.
- E*stablishing total cost of ownership (TCO)* - In order to properly plan for the required funding,

it is important that a project's total cost of ownership is clearly defined. For example, a project can be adequately staffed during its lifecycle; however, the lack of ongoing operational costs, including human resources, oftentimes cripples the ability to sustain the environment of a new or upgraded system. Unfortunately, many agencies are reluctant to include these costs as part of the TCO due to "sticker shock" that could result in the project not being funded at all.

> *Project managers, along with procurement officers and vendors, must work proactively to anticipate and mitigate risks.*

- *Dealing with annual or biennial budgeting processes that are truly unique to government* - Large enterprise projects that span multiple fiscal years often fall victim to changing priorities due to unfunded mandates or a change in the administration. Project managers are often faced with a "just make it fit" scenario where the timeline and requirements need to be reduced based upon the funding that is available. Additionally, due to aggressive timeframes and busy schedules, researching and applying for grants are typically not a priority.
- *Identifying and tracking costs throughout the life of a project* - Lack of structured methodologies that require these elements can result in budget overruns. Items that can exhaust project funds prematurely include "scope creep" and payments that are not tightly tied to specific deliverables or milestones. Project or program managers are not always held accountable for proper management of a project's budget.

Strategies for Success
- **Implement a formal business case process.** Many states require more robust business cases than in the past including more accurate reflections of the total cost of ownership of new or upgraded systems. It's critical that project

sponsors and state legislators fully understand the costs that are involved—particularly when the projects span multiple fiscal years. For example, key components of Delaware's business case address the following costs:

- o Hardware/software requirements
- o Professional vendor services
- o Product licensing fees
- o Salaries of state employees on the project team
- o Training (product and end-user)
- o Organizational change management tools, workshops, formal communications
- o Ongoing operational costs, including human resources, to support the system once implemented.

- **Evolve the PMO to portfolio management.** The IT organization must work closely with the individual agencies and business units not only to understand their requirements but to better anticipate the related funding and expenses that are required. Statewide portfolio management can better align agency goals and objectives with the state's strategic goals, resulting in more comprehensive strategic planning at the individual agency level.
- **Refine approach to corporate partner contracts.** Clearly state that payment will be made only after the state has signed off on well-defined and agreed-upon project deliverables. Whenever possible, large enterprise projects should be implemented in phases in order to increase the chance of overall success over time. This is a proven strategy in both industry and government.
- **Build in accountability of project team members.** Implement formal project management practices. The project manager should create and maintain comprehensive and realistic risk management and cost management plans and report on them regularly to the project executives. Independent project oversight can add an additional, objective layer of accountability.

- **Address legislative implications with stakeholders.** When teaching project management "boot camp" in South Carolina, experts outline the legislative process so that project and program managers better understand the implications of distributed funding models for enterprise or large agency projects.

Best Practices/Case Studies

As projects become more integrated and legacy systems are either replaced or modernized, state governments are actively trying to adopt or create better practices and standards that will help ensure the success of their initiatives.

Address *total* cost of ownership from every angle:

- In order to allow for better planning for state employee costs, Minnesota advocates a "best-guess estimating" process in order to begin to change the culture. This is considered to be a good starting point and is certainly better than leaving that critical factor out in planning for total project costs!
- South Carolina is establishing a technology plan as part of the budget planning process which includes agency level information. Ensuring that agency strategic plans and funding are in line with the state's IT strategic plan will help to meet statewide requirements in the most cost effective manner. Additionally, South Carolina has developed a preferred vendor strategy that provides incentives for bulk-purchasing across agencies and ultimately results in cost savings.
- Minnesota identifies projects that benefit two or more agencies in order to create shared utilities that will leverage needs across agencies; i.e., grants management. Since this could result in both time and cost savings, funding is usually addressed in a more favorable manner.
- Delaware's major projects are governed by an independent Technology Investment Council that has the authority by statute to monitor and terminate projects. Delaware is also in the process of creating an Enterprise Technology

Fund that can be used for statewide initiatives such as enterprise licensing.

- All of the states mentioned above, including Kentucky, are addressing the total cost of ownership in more formal ways. Delaware has recently implemented an automated business case system that assists the user in answering critical questions. It has been endorsed by the state's Information Resource Managers Council which represents the majority of state agencies. The business case system is also actively used as input into the state's budgeting process.

Calls to Action

The value added to the public through information technology can be significantly increased by maturing the PMO to a level where there can be a significant return on investment through better project planning and better use of state resources.

State governments should begin to position themselves in support of the following:

☐ Develop a formal business case process that will adequately reflect the total cost of ownership for projects and incorporate it as part of the budgeting process.

☐ Develop and communicate time-tested budgeting information early for incoming administrations.

☐ Align your enterprise architecture with statewide portfolio management initiatives so that future infrastructures can adequately support statewide business requirements.

☐ Develop standard project management processes that will create the structure and discipline needed to properly manage project costs and risks.

☐ Identify opportunities for shared projects to report to the state legislature and budgeters.

☐ Develop legislation that will allow state CIOs or an independent body to monitor and terminate enterprise projects.

In answer to state governments' needs to share ideas and best practices regarding project and portfolio management, NASCIO's State IT Project Managers (PM) Forum was established in July 2005 as an ad hoc focus group for NASCIO. The group is designed to foster the exchange of information, as well as to promote these disciplines among the states and their partners. The primary audience of the forum includes lead state IT project and portfolio managers and state CIOs. Other state staff members interested in IT PM are welcome to participate.

Some of the group's activities include: a state IT PM listserv and contact list; monthly all-state conference calls with topics such as PM methodology, IT and PMO governance, portfolio management, and dashboard reporting; a survey of state IT project and portfolio management practices, and a forum website and online clearinghouse. Potential future projects for the group may include: development of an IT PM newsletter; addition of a PM category to NASCIO Digital Government Compendium; addition of a NASCIO awards category regarding project management; and potentially, a follow-on "best practices" issue brief in conjunction with NASCIO's corporate membership, which earlier this spring cited "effective project management" as one of the top five competencies.

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Doug Robinson
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    NASCIO

Elizabeth VanMeter
    Program Manager
    NASCIO

Please direct any questions or comments regarding this report to Doug Robinson at drobinson@amrms.com.

APPENDIX

The following includes links to states have submitted information via surveys or have indicated they are willing to share templates and approaches via NASCIO's PM Forum listserv. If your state has information that should be added to the following lists, please submit it to http://www.nascio.org/nascioCommittees/projectManagement/public/linksAdd.cfm or send it to sjamison@amrms.com.

Links to State IT Strategic Plans

AL	http://www.isd.state.al.us/planning/FY07_SMART_Planning_Cycle.pdf
AZ	http://gita.state.az.us/tech_news/GITA_brochure.htm
AR	http://www.dis.state.ar.us/pdf/operations_plan.pdf
CO	http://www.colorado.gov/oit/strategicPlan.html
DC	http://octo.dc.gov/octo/cwp/view,a,1301,q,579939,octoNav,|32782|.asp
DE	http://dti.delaware.gov/strategicplan.shtml
ID	http://www2.state.id.us/itrmc/plan&policies/itplan.htm
KS	http://www.da.ks.gov/itec/SimPlan.htm
KY	http://www.ky.gov/got/enterprise/strategicplanning.shtml
LA	http://www.doa.louisiana.gov/oit/publications/master.htm
ME	http://www.maine.gov/cio/strategic/index.htm
MA	http://www.mass.gov/portal/index.jsp?pageID=itdmodulechunk&L=1&L0=Home&sid=Aitd&b=terminalcontent&f=publications_table_contents&csid=Aitd
MI	http://www.michigan.gov/dit/0,1607,7-139-30637_30646---,00.html
MN	http://www.state.mn.us/portal/mn/jsp/content.do?subchannel=-536891222&programid=536910160&id=-536891215&agency=OETweb&sp2=y
MS	http://www.its.state.ms.us/its/itsweb.nsf/MasterPlan?OpenForm
MT	http://itsd.mt.gov/stratplan/statewideplan.asp
NE	http://www.nitc.state.ne.us/stp/stp.pdf
NV	http://doit.nv.gov/strategicplan.htm
NH	http://www.nh.gov/oit/internet/documents/ITstrategicplanfinal.pdf
NY	http://www.cio.state.ny.us/NYS%20IT%20Strategic%20Plan%202005.htm

NC	http://www.scio.state.nc.us/sitPlan.asp
ND	http://www.nd.gov/itd/planning/doc/vision.pdf
OH	http://it.ohio.gov/
OR	http://www.das.state.or.us/DAS/IRMD/CIO/docs/EnterpriseIRMStrategy_v1.pdf
PA	http://www.oit.state.pa.us/oaoit/lib/oaoit/OIT_Draft_Strategic_Plan_r071405_new3yrplans.doc
RI	http://www.doit.ri.gov/committees/irmb/plan/2002to2006.pdf
SC	http://www.cio.sc.gov/ITPlanning/StateStrategicPlan.pdf
TN	http://www.state.tn.us/finance/oir/strategic.pdf
TX	http://www.dir.state.tx.us/pubs/ssp2005/index.htm
VA	http://www.vita.virginia.gov/docs/pubs/covStrategicPlan/index.cfm
WV	http://www.wvgot.org/2005sp.cfm
WI	http://www.doa.state.wi.us/docs_view2.asp?docid=5476

Links to State IT Planning, Architecture, and Supporting Documents

NASCIO State Profiles (click on states for architecture links)
http://www.nascio.org/aboutNascio/profiles/

Discipline Succeeds: Findings from the NASCIO State IT PM Assessment
http://www.nascio.org/nascioCommittees/projectManagement/members/

Relationships Matter: Customer Service Strategies to Promote Enterprise Services
www.nascio.org/publications/researchBrief.cfm

NASCIO Enterprise Architecture Tools
http://www.nascio.org/nascioCommittees/EA/

A compilation of State IT Planning, Architecture, Policy & Legislation (AR)
http://www.techarch.state.ar.us/additional_resources/other_states.htm

Keys to Collaboration: Building Effective Public-Private Partnerships
http://www.nascio.org/nascioCommittees/clc/Keys_to_Collaboration.pdf

Links to PMO and Project Business Cases, Value Statements & Templates

AR	http://www.oit.state.ar.us/AgPlan/ITPlan_Forms.htm
AZ	http://azgita.gov/project_pij_monitoring/ http://azgita.gov/downloads/
CO	http://www.colorado.gov/oit/statewideOffice.html
GA	http://gta.georgia.gov/00/channel_title/0,2094,1070969_63101294,00.html
MN	http://www.state.mn.us/portal/mn/jsp/content.do?subchannel=-536890651& programid=536910282&id=-536890276&agency=OETweb&sp2=y
OR	http://egov.oregon.gov/DHS/admin/pmo/about_us.shtml http://egov.oregon.gov/DHS/admin/pmo/publications/pmo_preinitiation_templates.shtml
SC	http://www.cio.sc.gov/pmweb/Default.htm

Links to State PMO Websites

AR	http://www.oit.state.ar.us/AgPlan/default.htm
AZ	http://azgita.gov/project_pij_monitoring/
CO	http://www.colorado.gov/oit/statewideOffice.html
DE	http://dti.delaware.gov/majorproj/majorproj.shtml
GA	http://gta.georgia.gov/00/channel_title/0,2094,1070969_40397818,00.html
KS	http://www.da.ks.gov/kito/EPMO.htm
MI	http://www.michigan.gov/projectmanagement
MN	http://www.state.mn.us/portal/mn/jsp/content.do?subchannel=-536890651&id=- 536890276&agency=OETweb
MO	http://www.oa.mo.gov/itsd/cio/projectmgmt/index.htm
NV	http://nitoc.nv.gov/IT_Project_Oversight.htm
NY	http://www.oft.state.ny.us/oft/pmo.htm
NC	http://www.epmo.scio.nc.gov/
ND	http://www.state.nd.us/epm/

OH	http://www.oit.ohio.gov/igd/epmo/epmo.aspx
OR	http://www.das.state.or.us/DAS/IRMD/cioc_initiatives_ITAM_index.shtml http://egov.oregon.gov/DHS/admin/pmo/index.shtml
PA	http://www.oit.state.pa.us/oaoit/cwp/view.asp?a=671&q=189122&oaoitNav=|1910|
RI	http://www.doit.ri.gov/projects
SC	http://www.cio.sc.gov/cioContent.asp?pageID=281&menuID=369
TN	http://tennessee.gov/finance/oir/itpm/
VA	http://www.vita.virginia.gov/projects/pmd.cfm
VT	http://www.dii.state.vt.us/pmo/index.html