

# *IT Project and Portfolio Management in Pennsylvania*

## **Nomination for 2006 NASCIO Award**

### **EXECUTIVE SUMMARY**

The Commonwealth of Pennsylvania acted on its project management roadmap by improving IT governance, bolstering the project management competencies of its IT workforce, and providing professional and technical support for project managers. These achievements have occurred over the last three years and involved major changes in policies and processes, organization and staffing, training and support, and toolsets.

#### *Policies and Processes*

- Our Governor promulgated an [Executive Order](#) to “establish an Enterprise IT Governance Structure to oversee the investment and performance of information solutions across the Commonwealth's agencies”
- We developed an [Enterprise Project Management Methodology \(EPMM\)](#) and associated system development lifecycles.
- We continue to refine our portfolio management process that provides enterprise review and approval for agency IT projects.
- As part of our enterprise architecture approach to governance, we established a [Project Management Domain Team](#) comprised of Commonwealth IT leaders who evaluate, approve and oversee hardware and software products, and applications and systems.

#### *Organization and Staffing*

- The Pa. Governor’s Office for Information Technology recently completed [a major reorganization that aligns our organization with our governance](#).
- Eight of our largest agencies (representing the great majority of our workforce and IT projects) have created project or program management offices.
- We wrote a new [job classification for Project Manager 1, 2 and 3](#), and created ten new PM positions under the direction of our deputy CIOs, who will assign them to high-priority IT projects.

#### *Training and Support*

- We developed a [project management curriculum](#) comprised of courses in project management and requirements management.
- We instituted a semi-annual [Project Management Forum](#), a professional development event designed to improve employees’ project management skills.
- Our deputy CIOs have staff specifically charged with assisting agencies with projects.

#### *Toolsets*

- We have established policy around enterprise standards for project management, collaboration and system development software.
- We have leveraged our SAP systems to track actual spending on IT projects, and roll up that data to portfolio views by Community of Practice and for the enterprise.

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### **A. Concise description of the business problem and solution, including length of time in operation.**

The Commonwealth of Pennsylvania acted on its roadmap to improve project delivery by improving IT governance, bolstering the project management competencies of its IT workforce, and providing professional and technical support for project managers. These achievements have occurred over the last three years and involved major changes in policies and processes, organization and staffing, training and support, and toolsets.

#### *Policies and Processes*

- Our Governor promulgated an [Executive Order](#) to “establish an Enterprise IT Governance Structure to oversee the investment and performance of information solutions across the Commonwealth's agencies”
  - Specifically, the Governor directed that resources for project management and business process reengineering be provided to help manage agency IT projects and facilitate the analysis of business process changes prior to the initiation of an IT project. In addition, reviews and approvals occur in all aspects of the project implementation including change order management, deliverable payments and final acceptance for projects determined by certain cabinet members and the Governor’s Chief of Staff.
- The Commonwealth developed an [Enterprise Project Management Methodology \(EPMM\)](#) and associated system development lifecycles drawn from the Project Management Institute (PMI) model. These are consistent with best practices from other states, the federal government, the private sector and several of our own agencies.
  - The Execution and Control phase of the methodology has been populated with a common [Software Engineering Process \(SEP\)](#), a system development lifecycle (SDLC) for application development. The SEP is a collection of artifacts, templates, and samples that have been assembled through the analysis of several standard software development lifecycles, including the Rational Unified Process, Enterprise Project Management Methodology, and Software Development Methodology. The elements of the SEP represent the commonalities from these SDLCs and are required across most application development initiatives.
  - We use the globally recognized methodology for our SAP implementations, called AcceleratedSAP or ASAP. This methodology is a model for all of our COTS projects. It was used in our three-year initial SAP implementation that at the time was the largest of any state government, and continues to be used to implement new modules.
- In the Strategy Phase of our methodology, the Commonwealth continues to refine our portfolio management process that provides enterprise review and approval for agency IT projects called the [Community of Practice process](#). It begins with the development of an enterprise strategic plan, from which individual agency strategic plans and associated project proposals are developed. The plans and project proposals are then considered in a collaborative environment organized by common program goals in four broad areas: health and human services, public safety, environmental and general government operations.
  - Specifically, every agency IT project greater than \$100,000 goes through a two-gate process. The first gate evaluates each project proposal on its merits, with the successful proposals then undergoing a financial review that includes a benefit/cost analysis. An executive-level group made up of the Commonwealth CIO, and secretaries of key agencies involved in procurement, budget, administration and the Governor’s chief of staff make final decisions to fund recommended projects.

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- As part of our enterprise architecture approach to governance, we established a [Project Management Domain Team](#) comprised of Commonwealth IT leaders who evaluate, approve and oversee hardware and software products, applications and systems, and other technology solutions supporting project management. In addition, the Domain Team establishes policy as required.

### *Organization and Staffing*

- The Pa. Governor's Office for Information Technology recently completed [a major reorganization that aligns our organization with our governance](#) model.
  - The Commonwealth CIO now has four Deputy Chief Information Officers who provide support and leadership to agencies in each of our four communities of practice (Health and Human Services, Public Safety, Environmental and General Government Operations). They focus on cross agency synergies and business requirements.
  - The Deputy CIOs and their staff manage portfolios of agency projects through the Community of Practice review and approval process described above.
  - They also manage the programs – or *communities* – for their particular area by serving as champions or sponsors of certain projects, providing project management support and customer service, promoting collaboration across previously silo-bound agencies to reduce duplication and costs and increase returns on investment, and enhance solutions for system interoperability and security.
- Eight of our largest agencies representing the majority of our workforce and IT projects have created project or program management offices.
  - These offices are staffed with project management professionals who support their agency project managers, and manage portfolios and programs of IT projects.
  - All these agencies are voluntarily following our enterprise project management methodology and are using the tools we developed with them.
  - The agencies are the departments of Transportation, Public Welfare, Health, State Police, Education, Environmental Protection, Conservation and Natural Resources, and Labor and Industry.
- New [job classifications for Project Manager 1, 2 and 3](#), were added and ten of these PM positions were added under the direction of our deputy CIOs, who will assign them to high-priority IT projects. This is the beginning of our effort to create a career path for project managers in our government and reduce our reliance on contract staff.
  - Until now, the only way a project manager – or a professional who aspired to be a project manager – to advance was to forego managing projects and take a position managing an organizational unit. This took our best and brightest PMs out of the field altogether and discouraged young professionals from entering the profession. The job classifications are based in part on project manager competencies developed by an inter-agency workgroup of IT and HR/training professionals.
  - While not required, more of our project managers are becoming Project Management Professionals (PMP) certified by the Project Management Institute.

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### *Training and Support*

- We developed a [project management curriculum](#) comprised of:
  - A three-day instructor-led classroom course on our EPMM that was delivered to 11 classes and almost 400 government employees, mostly IT professionals, from line personnel to executives. In written course evaluations, almost 95 percent of the participants said the class was a good investment of their time.
  - A three-day classroom course on requirements management is scheduled for the summer and fall of this year.
  - A web-based course on project management for Commonwealth employees is also available.
- We instituted a semi-annual [Project Management Forum](#), a professional development event designed to improve employees' project management skills through sharing information about project management challenges and best practices among agency practitioners. This has helped promote a culture of project management in and among state agencies.
- In our new central IT organization in the Governor's Office for Information Technology, our Deputy CIOs have staff specifically charged with assisting agencies with their IT strategic plans and submissions of IT projects to the Community of Practice enterprise approval process, and other staff responsible for general customer service for our agency IT partners.

### *Toolsets*

- We have developed a policy – through our Enterprise Architecture program – that establishes enterprise standards for project management, collaboration and system development software.
  - For project management, we are implementing at an enterprise level [CA Clarity](#) (formerly Niku), which will enable individual agencies and our Governor's Office to manage IT projects, portfolios and programs.
  - For collaboration, we have set enterprise standards for [team collaboration web sites](#), including MS SharePoint, which is already in use, and BEA Aqualogic, which is now being implemented enterprise-wide. We have set standards for, and are now implementing, WebEx for real-time web conferencing.
  - For system development, we have set standards for an array of [software tools to help with various functions during system development](#), most of which are part of the IBM Rational suite.
- We have leveraged our SAP procurement, budgeting and accounting systems to track actual spending on IT projects, and roll up that data to portfolio views by Community of Practice and for the enterprise. This service went live in May, and agencies are beginning to populate it with their project spending.

## **B. Significance to the improvement of the operation of government.**

These initiatives represent a sea of change in the way we work. For the first time, we are “practicing what we preach” by organizing ourselves and enabling our employees to work in a matrixed fashion on complex, multi-agency and enterprise projects, without excessive reliance on expensive consultants. We are focusing on technology solutions firmly anchored in our business goals, which are interoperable and support lines of business regardless of the organizational units in which they occur. We are proactively tracking actual spending on IT projects, so we can calculate ROI, and we are managing programs, instead of simply “putting out fires.”

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**C. Benefits realized by service recipients, taxpayers, agency or state.**

Because these initiatives have been developed in the last two to three years and are being rolled out in 2006, performance measures are now being developed to capture benefits in the coming years. Expected benefits include a more competent workforce, increased returns on investment, and more reliable technology products and services that meet customer needs.

**D. Realized return on investment, short-term/long-term payback (include summary calculations).**

This data will be available beginning in the calendar year 2008, as it is accumulated in our system of record, SAP, and in our project, portfolio and program management system, CA Clarity, during 2007.