

## Missouri NASCIO Awards Submission

### Category: IT Project and Portfolio Management

#### Executive Summary: Missouri Project Management Program

*“Project management is the application of knowledge, skills, tools, and techniques to a broad range of activities in order to meet the requirements of a particular project.... Finding individuals with this broad range of expertise is challenging, which is why expert project management leadership is a highly desirable competency.”*

*--Project Management Institute*

Project management leadership is visible and indispensable in Missouri State Government. In planned ways it has been enabled by a related and exceptional program that is extensively re-developed and broadly implemented. Through the Missouri Project Management (MPM) Program the project management lifecycle stages, formal knowledge areas, processes, and some 600 related inputs, tools, techniques, and outputs have been learned and very successfully applied by the state’s information technology (IT) workforce to increase and improve technology’s contribution to business strategy attainment. The overall return from the program to date has been remarkable.

The MPM Program is administered by the IT leadership in the Missouri Office of Administration (OA). It is valued by the state’s entire IT leadership chain as an absolutely essential project control and benefits multiplier. Missouri Chief Information Officer Dan Ross and his business and technical area deputies, department and agency IT directors and their management teams, and individual practitioners rely on highly scalable project management—a tailored version that has been developed, implemented, and evolved through the program.

The “Show Me” state’s project management solution provides a refined set of best practices and much more than Ross’s consolidated, year-old IT Services Division (OA-ITSD) and other, non-consolidated organizations share to authorize, initiate, plan, execute, control, and close thousands of IT projects and programs (multi-project efforts) within the statewide portfolio.

The MPM Program and project management are politically neutral. Even so, the adoption rate of project management in the government was slow for many years due to rigid functional organization management structures. The rate has increased under Governor Matt Blunt’s administration, and desired “matrix” or combined operational and project resource management in state organizations has caught on. The program reduces friction and increases productivity.

Within the ITSD and through an allied architecture governance body, the IT Advisory Board and its Project Management Standing Committee, the MPM Program enables the division’s 1,400 members and hundreds of others in non-consolidated IT units to properly approach, process and complete projects, communicate and deliver value, and, as a major benefit, more rapidly advance business-centric strategies. The MPM Program is as needed and appreciated in non-consolidated organizations in the Legislative and Judicial branches as it is within ITSD and more than a dozen Executive Branch departments and agencies that are supported by the division.

As the vehicle through which project management gets implemented, the MPM Program is used by IT leaders to certify practitioners, perform project life cycle management, provide more accurate resource estimates and progress measurements, assure proper communications, reduce risk, and generally increase time (or schedule) and cost (or labor and funding) management. As evidence of the return-on-investment made in the program, selected project successes in the first year after the ITSD consolidation are profiled below.

1 - See Chart 1 on Page 2, below: Certified Missouri Project Manager (MPM) Growth by Year.

2 - “Missouri Project Management Best Practices Manual, Release 4.0.” Release 5.0 is in draft, retains practices that meet Missouri’s unique needs but is more aligned to the Project Management Institute’s “Project Management Body of Knowledge Guide (PMBOK® Guide), Third Edition.”

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Chart 1, above, reveals an average increase of 39 certified Missouri Project Managers (MPM) per year during the period illustrated, through May 2007. MPMs are a product or output of the MPM Program and are covered in the written justification below. Since the certification sub-program began in 1998, hundreds of additional MPMs have joined the ranks of project management practitioners in the state. Overall this component of the program has grown 210% since 2002.

Normal attrition in the MPM certification sub-program has had an impact on the expansion of project management in Missouri. It has slowed it, but not excessively. Additionally, not all certified MPMs perform project management as intended. As a result, the IT division has tightened up the certification course selection criteria to assure that investment made in project management training provides a return. The vast majority of those trained have rendered related service, and the state has enjoyed great momentum in project management as a result. Continuing growth in the MPM population is anticipated due to increasing demand for project management. The growth is cost effective. It costs \$2,520 to send an employee to the certification course. The cost is a rock-solid investment when compared to the return provided.

The certification curriculum is now being more closely aligned to the Project Management Institute (PMI) methodology. The PMI methodology, as covered in the global standard for project management, “A Guide to the Project Management Body of Knowledge – Third Edition” (PMBOK® Guide), contains five project life cycle stages: initiating, planning, executing, monitoring and control, and closing. The corresponding “Missouri Project Management Best Practices Manual – Release 4.0” contains two additional life cycle stages or process groups: project business case development and project startup. In Missouri and elsewhere the business case is supposed to be produced at project portfolio level but often instead is developed by or with input from project managers. Project startup in between project planning and execution is included in the manual to assure smoother phase to phase transition.

MPM Program leaders made a conscious and good decision to focus on expanding project management methodology throughout the state rather than just deploying project management software and advising personnel to learn how to use it. The leaders also decided to not require the use of a single project management software application, such as Microsoft Project or IBM Rational Project Manager, but instead left the choice up to practitioners so they could select and integrate the appropriate software into their total project management information system (PMIS). Such thinking and decisions have provided the latitude that professional MPMs need to meet the various requirements of networking, computer hardware, application and information system, and integrated IT systems projects that require maximum support from project management.

**Written Justification: Missouri Project Management Program**

Programs are a dime a dozen—but the Missouri Project Management (MPM) Program is an irrefutable answer to the age old problem of weak project management, worth the weight of its main products in gold. Hundreds of its products, trained and certified project managers, matter to IT executives and managers and staff, and to 63,000 employees in Missouri State Government departments and agencies, and also to a state population projected to exceed 6 million by 2010.

In the 10 years since its forerunner emerged in the form of related but disconnected efforts aimed at adopting project management the program has coalesced and made multiple leaps from obscure to essential. Today, the MPM Program is identifiable by its integrated functions. It has evolved to enable tremendously positive differences in the state government's IT projects.

A review of the Missouri IT state-of-the-state report for 1997, a decade ago, shows that what would become the MPM Program was needed to reduce problems caused by IT project risk. Risk is an expected aspect of projects that causes delay and higher cost, even failure and other serious problems that have been made known to IT leaders annually since 1986 by the Standish Group in the often cited "Chaos Report."

The need for modern project management dates back to the 19<sup>th</sup> Century when businesses had to organize workers at large factories in the Industrial Revolution. Speeding forward, in the 20<sup>th</sup> Century work flow techniques were incorporated to improve project management. Studies completed by Henry Gantt, who, besides having the Gantt chart in project scheduling named after him, showed labor can be improved by focusing on its parts. In the 21<sup>st</sup> Century and especially in the last two years Missouri's government has reduced project risk, improved work flow, and made many other improvements in projects by increasing the practice of formal project management. As detailed below, this has saved the state millions of dollars. It also has increased the pace of project productivity and along with it customer and other stakeholder satisfaction.

Current project management capabilities in the state government are an indirect outcome of centuries old pioneering but also, significantly, the direct result of recent emphasis on combining the formerly detached parts of the MPM Program into a unified but de-centrally managed project management enablement and improvement solution.

The human component in the solution, certified project managers, help to increase the diligence and quality of each project management effort made. Two hundred eighty-eight selected Missouri State Government employees representing 15% of the experienced technicians and managers in ITSD have been certified as Missouri Project Managers (MPM) through the structured education and training component of the program. Many MPMs, as they are known, have gone on to gain expertise in project scope, time, cost, and quality management, and also in dozens of core and facilitating processes that are vital to project and multi-project success.

Some MPMs, when promoted in their functional area careers to IT director or executive management positions, have become project management champions—in line with the program philosophy. A few also fill positions on the state IT Advisory Board and on its Project Management Standing Committee; they add their dual IT / project management experience to positively affect the quality of MPM Program products and sub-programs, which follow immediately below.

3 - "Missouri Advance Planning – Missouri's Long-Range Transportation Plan," Missouri Department of Transportation, dated April 11, 2007.

4 - As of May 4, 2007.

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In addition to providing regular MPM certification education through a contracted, intensive 120-hour curriculum, the program encompasses but is not limited to the following:

- Missouri Project Management Standing Committee (chartered by IT Advisory Board).
- Missouri Technology Steering Committee (in major organizations supported by ITSD).
- Missouri Value Assessment sub-program (MoVAP, used to estimate project ROI).
- Missouri Project Management Best Practices Manual (fifth release due this summer).
- Missouri Project Management policies (Internet based).
- Missouri Project Management Development Forum (Intranet based).
- Missouri Project Management Senior Executive Briefing (to kindle champions at the top).
- Missouri Project Manager Continuing Certification sub-program (centrally managed).
- Missouri Project Manager Certification Handbook (revised December 2006).
- Missouri Project Manager Certification tools and videos (Intranet based).
- Missouri Project Manager Continuing Certification Reporting System (Intranet based).
- Missouri Project Process Tailoring guidance and tool (increases the rigor in projects).
- Missouri Project Performance Management sub-program and manual (and appendices).
- Missouri Project Oversight sub-program and manual (for internal and external oversight).
- Missouri Project Oversight manual templates and examples (Internet based).

So much more may be said about the MPM Program and its components above, but it is equally important to profile the products, services, results, and other outcomes delivered by project management through the program. Briefly, however, and before highlighting successes it is important to emphasize why the program is so greatly needed.

To peg the MPM Program as a solution to a single undesirable such as project risk or even to a large but single set of problems would lead to an inadequate range of exact reasons about why the program matters. Simply put, without the program Missouri would be stuck dealing with the following and many other situations that prevent strategy linkage and attainment:

- Misaligned or unaligned projects caused by poor or absent project selection and prioritization at business (project portfolio management) level. Rogue IT projects that get into the pipeline through political whim or for whatever other reason require scarce resources that should instead support organization and state strategy achievement.
- Resource utilization uncertainty. This troubling condition causes friction among functional area managers, project managers, and partnered firms. It also too often regrettably embroils IT directors and other organizational leaders in a distracting, unproductive way.
- Wasteful idling of high value, high cost consulting resources. This circumstance is caused by poor planning. It also often is caused by poor synchronization and control of activities assigned to staff and consulting resources.

Professional internal project management aided by the MPM Program has helped the state to minimize or avoid issues, concerns, problems such as those above, and countless risks in projects. If for no other reason than improving risk management the program has been worth the time and effort put into developing, sustaining, and continuing to improve it.

The significance of the program to the operation of government and to the citizens of the State of Missouri cannot be overstated. In 2005, for example, a key outcome on Governor Blunt's agenda was the consolidation of IT resources. That year the newly forming ITSD stated its mission: "... to provide technology services and solutions for the State of Missouri departments and agencies

5 - "120-Hour Intensive" project management course offered by the Missouri Technical Education Center under contract with The Mathis Group.

6 - 2005 State-of-the-State Report, page 3: "Consolidation ... is a huge undertaking with the potential to realize significant cost savings."

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so that they can efficiently serve their customers.” Embedded in the statement was an implied need for increased project management discipline.

In the 2005 IT State-of-the-State Report, 10 selected projects were highlighted. Each resulted in significant savings. Combined, the total first-year savings in these projects exceeded \$1.2 million. The savings, however, only reveal one value. Many more were realized. Adept project management in 2005 helped avoid unnecessary consulting services, unneeded email software licenses, payment for a Web solution through multiple funding sources, and unneeded router upgrades. Other achieved outcomes were avoided mainframe software purchases, more efficient use of router deployment crews, a very cost-efficient sharing of network management software, and shared use of electronic processes for Medicaid billing and State Health Lab tests.

In a single interdepartmental project that started in January 2006 and finished on time and on budget in March 2007, more than \$800,000 in new PC purchasing cost was avoided. In what was named the Department of Social Services (DSS) to Department of Corrections (DOC) PC Project two ITSD units partnered to release, transfer, upgrade, re-image, deploy, and re-utilize 1,400 PCs at four major DOC campus-level institutions (*state prisons*). As one involved project management officer put it, “Without project management the complex and lengthy project would have been futile.”

So successful was the DSS to DOC PC Project that it served as the model for a far larger Institution Technology Improvement Program (ITIP). The multi-project ITIP began in December 2006, is estimated to continue through 2009, and is 23% based on active projects. Forty-eight projects (in sets of four synchronized projects at each of eight institutions) are currently active and under control. The aim is to transfer and roll out 1,460 PCs (to replace as many AS/400 dumb terminals) through 2007 and into 2008, and to then roll out an additional 2,500 acquired PCs afterward to meet the same purpose. Ultimately the multi-project plan supports 18 institutions in a way that improves the DOC network and computing environment, improves DOC employee productivity, and avoids a total of more than \$3 million in new PC purchasing cost.

At the broadest level in the state the MPM Program has helped provide returns through two integrated projects, the statewide Microsoft Active Directory (AD) and Email Consolidation. These projects have already provided more than \$2 million in actual savings to date. The 18-month effort is 80% complete overall and is estimated to finish in December 2007, so additional savings are anticipated. The AD / Email projects are the subject of a separate NASCIO Recognition Award nomination from Missouri, in the Government to Government Category; however, a point needs to be made that they, too, would be futile without project management as an output of the MPM Program. Project management’s role is clear in the following passages from the nomination:

- “The team developed a blueprint [*i.e., project plan*] ... tailored to meet each agency’s needs.”
- “Consolidation had to occur without interruption in service and at minimal cost [*i.e., within these project planning constraints*].”
- “Very few large enterprises had taken on a similar project independently [*i.e., project risk management was crucial because of unknowns*].”

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In April 2007, the ITSD documented its FY07 cost savings and efficiencies that resulted from the consolidation of the division. In the document 31 examples are listed. Among them are 17 that required and were completed using project management, at a combined annual and one-time savings of \$1.88 million. These examples and the several key projects above are among thousands of other “unsung hero” projects. All have goals and objectives. Projects selected for completion rather than termination go on to deliver needed products, services, and other results that can be traced back to fundamentals in the MPM Program.

The Missouri Project Management Program did not start out as a model but is one today, will be a better one tomorrow, and has no sunset.