

2007 NASCIO Recognition Awards

Information Communications Technology Innovations

**Collaboration Tools:
Innovation Management and Solution Infusion Benefits**

Michigan Department of Information Technology

Executive Summary

Problem: Technology and innovation management is an underutilized and underdeveloped IT strategy and management approach in public sector IT. And yet, with sustained fiscal pressures, and in an environment of low cost, high performance expectations this can be a powerful tool for maximizing both resources as well as performance and outcomes for state IT organizations. The approach can be in the form of fully populating functional, service or operational areas with mature solutions, or balancing a portfolio of low risk, mature solutions with higher risk or emerging solutions with exceptionally high benefits. But what is basic, is the need to combine the strategy and targets chosen by the state with a sustained technology and innovation management and solution infusion process. Michigan has taken both steps simultaneously.

Innovation Management Process: Michigan began a formal technology tracking assessment in 2003 and initiated a SOW and gap analysis in 2004. A formal technology and innovation management process was introduced in 2005 at the Strategic Plan Retreat, June 20 – 21, in the form of the Seven Solution initiative, took place in four stages, and involved the agency stakeholder based Michigan Information technology Executive Council (MITEC), research and advisory services as well as the service provider community. Further, it was supported by two vendor outreach programs, Horizon and Spotlight.

Targeted Solutions: The seven priority solution clusters include: Contact Center, Citizen Transactions / Self-Service, Collaboration Tools, Data Integration / Sharing, Shared Administrative Services, Mobile Worker and Mobility Strategy , and an Integrated Infrastructure. The profile of these solutions closely paralleled priorities in both the public and private sectors, and those identified by state CIO's in 2006.

There are three major priority service initiatives: Collaboration Solutions, Mobile Strategy, and Citizen Self-Service Strategies. The three priority solution clusters support several basic strategies: worker and workplace efficiencies, better external customer services, and blending and leveraging of mature / emerging solutions.

Collaboration tools (Tool set for State agencies to share information and resources to reduce the cost of government operations, and, increase the reach of government services) are the most mature of the three priority service areas, with four of the six services available to state employees on the Intranet (TechTalk). This innovative solution cluster is used to demonstrate the benefits of the innovation management and infusion process as well as the benefits of specific innovative solutions in several organizational and service areas (See sections B and C).

Benefits: Some of the major benefits include better alignment of business needs and available solutions, stronger prioritization, enterprise efficiencies, more agile solutions, earlier benefits, better support of state policies, support for the information worker and workplace, and enhanced transferability.

- There are both significant government as well as and public value related benefits for Video and audio conferencing, Web conferencing, video streaming, file sharing and the citizen survey tool.
- Because of state policy realignment concerning travel and a priority given to teleconferencing there is potential for significant cost avoidance in travel costs.

Lessons Learned: Michigan undertook the transition from systematic technology tracking to solution management and infusion from 2003 to 2007 and it took Michigan three years to institute the process. Based on the lessons learned, other states can do it more quickly.

A. Description

Problem Statement: Technology and innovation management is an underutilized and underdeveloped IT strategy and management approach in public sector IT. And yet, with sustained fiscal pressures, and in an environment of low cost, high performance expectations this can be a powerful tool for maximizing both resources as well as performance and outcomes for state IT organizations. The approach can be in the form of fully populating functional, service or operational areas with mature solutions, or balancing a portfolio of low risk, mature solutions with higher risk or emerging solutions with exceptionally high benefits. But what is basic, is the need to combine the strategy and targets chosen by the state with a sustained technology and innovation management and solution infusion process. The benefits can include identifying strategic opportunities, prioritizing options and solutions which can result in more effective use of technologies, and coordinating activities across the enterprise and avoiding redundancies. In addition such an approach can help the organization become more skilled in risk management.

The problem is characterized by:

- Availability of many mature, or high benefit IT solutions with acceptable, manageable risk
- A number of emerging solutions with high promise, but requiring lead time if selected for assessment and or implementation
- Availability and emergence of current and potential cross-boundary solution opportunities
- Availability of models or frameworks for managing technology and innovations
- Yet, little systematic utilization, integration of the above approaches

Solution Framework: Gartner, in “Strategic Technology Planning: Picking the Winners” (070903) has identified a common set of steps - scope, track, rank, evaluate, evangelize and transfer (STREET) - that make up a typical strategic technology planning process. Scope refers to providing focus and scope for technology investments through an understanding of objectives, industry direction and business process bottlenecks. Evangelize means influencing those in a position to bring the technology to production. Transfer refers to transfer knowledge and responsibility to those who will develop the operational system. These represent more than a special case of portfolio management, and involve sustained, ongoing visioning and scenario building, sustained tracking of new opportunities, and internal and external marketing.

Each of the steps can be beneficial in its own right, but a systematic utilization and implementation, based on a shared, partnered evaluation and prioritization process can gain the maximum results. And specific solution clusters, such as Collaboration Tools, can serve to demonstrate the effectiveness of such a systematic approach.

1. Michigan Technology and Innovation Management Framework

Michigan began a formal technology tracking assessment in 2003 (Technology Trend and Management Overview) and initiated a gap analysis in 2004 (2004 IT Strategic Plan: Gap and Opportunity Analysis - Appendix H). These activities were comparable to the scope and tracking phases of the STREET process. A more formal technology management process was introduced in 2005 at the Strategic Plan Retreat, June 20 – 21, in the form of the Seven Solution initiative.

Seven Solutions: The seven solutions represent the first formal steps in shifting from tracking, alignment and prioritization to actual technology and innovation management, and took place in four stages.

Stage one: Tracking, Assessment and Targeting : In June of 2005, Key MDIT managers and staff, in conjunction with MITEC, and with the assistance of Garter, Forrester and Cisco's State and Local Internet Business Solutions Group conducted a three day assessment and prioritization session. This was based on an assessment of state service needs and both high and low risk, mature and emerging, high and low adoption rare solutions and strategies in the public and private sectors. MITEC and MDIT identified seven solution clusters with the most desirable balance among benefits and risks. These areas ranged from broad strategies such as infrastructure consolidation, to fully mature interactive customer services, and also included emerging, innovative technologies such as mobile worker support and collaboration tools. The seven solution clusters include: Contact Center, Citizen Transactions / Self-Service, Collaboration Tools, Data Integration / Sharing, Shared Administrative Services, Mobile Worker and Mobility Strategy , and an Integrated Infrastructure. The selection closely parallels priorities in both the public and private sectors, and those identified by state CIO's in 2006.

Stage Two : Evaluation and Prioritization: During October to December of 2005 seven MITEC and MDIT work groups conducted a formal assessment of the range of solution options in each area, and identified specific projects for the 2007 budget. Sixteen agencies participated in work groups, varying in size from 4 - 7, and narrowed the number of initiatives from 54 to 21, consisting of prioritized existing solution, projects in progress, and future opportunities. The results of these assessments become a part of the 2006 "Michigan IT Strategic Plan: Seven Solutions (Appendix K)", 2006 - 2007 Strategic Management Team (SMT) tracking process, and the MDIT 2007: "Progress and Prognosis Report"

Stage three: Update and Refinement: There were three major MITEC update and refinement phases during the implementation cycle for the three priority initiatives: Collaboration Solutions (May 12, 2006); Mobile Strategy (December 6, 2006); and Citizen Self-Service Strategies (May 18, 2007). The three priority solution clusters support several basic strategies: worker and workplace efficiencies, better external customer services, and blending and leveraging of mature / emerging solutions. Collaborative Services, the most mature is being used to demonstrate the benefits of the process as well as the benefits of innovative solutions in several organizational and service areas (See sections B and C).

Stage four: New Cycle: Stage four involves updating and refining the solutions for the 2007 - 10 State IT Strategic Plan.

2. Collaboration Tools: Collaboration solutions (Tool set for State agencies to share information and resources to reduce the cost of government operations, and, increase the reach of government services) are the most mature of the three priority areas, with four of the six services are available to state employees on the Intranet (TechTalk), and the others through MDIT.

The solution portfolio consists of mature, emerging and leading edge solutions that are available in any combination or operational or service context. What makes them innovative is that they are part of a portfolio, are integrated with other shared services and solutions (e.g. mobile worker and workplace), are part of an information and knowledge worker and workplace strategy, and are being upgraded and expanded with additional services and technologies. The current services include:

Web Conferencing (Tech Talk): A state-wide contract for web conferencing allows Internet access to meeting materials, and, voice services and event monitoring.

Audio Conferencing (Tech Talk): Audio Conferencing allows meetings to be conducted over the state's phone system. For large groups, the State maintains a contract with the AT&T Reservationless Audio Conferencing service.

Video Conferencing (Tech Talk): A state-wide service is available, allowing any agency to call the client service center, reserve a video conference room within the state, pay a set hourly fee, and, receive onsite set-up and conference facilitation.

Video Streaming (Tech Talk): The service includes live filming services, taping services, and, video editing for subsequent video streaming on the Internet.

File Sharing: The State of Michigan Intranet site supports cross agency team rooms – this allows multiple agencies to review and edit documents, and share files without transmitting the files via e-mail.

Citizen Survey Tool: Agencies can develop a web-based survey that includes statistical reporting of survey results. Up to 20 concurrent surveys can be active on Michigan.Gov at one time.

3. Lessons Learned: Michigan undertook the transition from systematic technology tracking to solution management and infusion from 2003 to 2007, and it took Michigan three years to integrate five of the six STREET steps. Based on the lessons learned, other states can do it more quickly. Specifically, the following can significantly advance the implementation cycle:

- A vision that is part of both the strategic as well as operational processes (Strategic Plan and Strategic Management Team)
- Getting top level commitment, in depth sponsorship (CIO and Chief Deputy)
- Designating an owner, champion at start of process, accountable for the innovation process
- Involving stakeholders in all phases of the process, at all times
- Building a fully integrated technology and innovation management process, including all steps, with particular emphasis on strategy, process and culture
- Fully utilizing external expertise (Combination of both Research and Advisory as well as product and service providers, (Including HORIZON and SPOTLIGHT vendor programs)
- Making innovation management a part of the portfolio management approach at the inception of the process (Technology and innovation management should be integrated with but is not synonymous with portfolio management)
- Focusing on a limited number of innovations at any one point in time, of broadest benefit to stakeholders
- Focusing on people centered technologies (collaboration services, mobile workplace, citizen-self service)
- Being prepared to pull the plug on inadequate solutions, and in a timely manner

B. Government Benefits

1. Technology and Innovation Management Benefits

Better alignment of business needs and available solutions: Identify strategic opportunities that combine external technology drivers with internal and partnered business opportunities

Helps Prioritization: Helps prioritize solution options, identify and target solutions with the greatest desired impact. This can include medium to high benefit and low risk as well as high risk and high benefits solutions for critical areas.

Enterprise Efficiencies: Maximizes the benefits of initial investments in solutions and also applies the efficiencies resulting from high benefit, high return solutions for a larger number of functions, services and organizations.

More agile solutions, earlier benefits: Enables quicker responses, development of solutions earlier and gaining benefits for a longer period of time.

Enables better support of policies: Support the Governor's Executive Directive on reducing travel costs and the Department of Management and Budget's travel reduction initiative.

Information Worker and Workplace: Support the Information Technology Strategic Plan goal for an Information Technology Worker and workplace. Makes the public sector workplace more attractive to new workers.

Transferability: In addition to solutions being transferable to and among agencies, they are also transferable to other states, and in areas such as shared administrative services , data sharing and integration they are transferable across traditional boundaries to other levels of government and the private sector.

2. Collaboration Solution Benefits

Web and Audio Conferencing: Reduce travel cost. Increase attendance for meetings to and from remote locations. Promotes collaboration across agency offices throughout the state.

Citizen Survey: Increases opportunities to engage citizens. Provides a centralized and integrated technology to meet the requirements for citizen participation with 24/7 access to information. Provides an easy and reliable way to manage public comment on a scalable, systematic basis. Enables getting feedback from targeted populations to inform policy and business decisions.

File Sharing: Promotes efficient team collaboration within and across state agencies Document control, version control and workflow management. Reduction in storage needs

Video Streaming : Reduce video costs. Reaches a wider audience. Provides a new channel for broadcasting “live” or recorded events in the Internet. Provides on – demand training.

C. Public Value

1. Examples of Collaboration Solution Public Value Benefits

Web Conferencing: Currently the state of Michigan has over 130 video conferencing facilities. Current facilities are geographically dispersed, fully staffed with informal experts, under utilized and generally used by only a single agency. Since the inception of the program approximately 50 of the sites are part of a shared pool of resources.

Web conferencing is used for training and virtual classrooms by the Department of Labor and Economic Growth for workforce training, as well as for case worker training in Human Services. Document review and online revisions are made for Invitations to Bid (ITB’s)

Citizen Survey Benefits: Survey tools have assisted Treasury to improve its web site, allow Lottery customers to express product opinions to Marketing personnel, and permits the collection of data from schools on a short turnaround.

Video Conferencing: The Office of Administrative Hearings and Review uses video conferencing to manage a caseload of over 100, 000 annual hearings.

File Sharing : File sharing is used for inter and intra development team communication; extra team communication for change management within the Department of State. Michigan Department of Education has many business needs in which data is shared with public and non-public schools via a secure solution.

Video and Audio Streaming: Low cost broad spectrum sharing of Public Service Commission and Board meetings. Broad distribution of State Board of Education Meetings. Audio Streaming—Michigan Public Service Commission and Commission for the blind. Both use the capability to provide feedback for staff not in attendance.

2. Savings and Cost Avoidance

1. The Management and Budget Task Force on Alternatives to Travel (March 2006 Draft Report) recommended (1) the use of video – audio conferencing instead of travel, and (2) implementation of a formal videoconferencing program with dedicated support / training facilities. A 10 percent reduction in the current \$13.9 spent on 34.5 million business miles could result in an annual savings of up to 1.4 million.

2. The costs for WEB Conferencing dropped from 37 cents per min per end point (26 web and 11 phone) in the previous contract to 19 cents (15 WebEx and 4 phone) in the new contract. The contract negotiation in part was driven by the emphasis on collaboration solutions.