



# **BEST PRACTICES**

in the **USE** of **INFORMATION**  
**TECHNOLOGY** in **STATE GOVERNMENT**

**RECOGNITION AWARDS | 2005**

# NASCIO RECOGNITION AWARD CATEGORIES | 2005

## **communications infrastructure**

Initiatives or facilities to promote economic development, interoperability and improve quality of life by facilitating or providing communications capabilities that enable state government to operate more efficiently and effectively or offer more innovative, responsive and personalized services to citizens.

## **digital government: government to business**

For applications that foster innovative, timesaving, cost-effective transactions between government and businesses. Applications focus on convenience and streamlining exchange of information.

## **digital government: government to citizen**

For governmental applications that provide service to citizens.

## **digital government: government to government**

For digital government initiatives aimed at enhancing government to government interaction, transactions, and/or services.

## **enterprise information architecture**

To design, develop or implement a solution-based enterprise architecture framework, consisting of technical, business, and information architectures.

## **innovative use of technology**

For unique uses of current technology or application of leading-edge technology.

## **security & business continuity**

This category encompasses IT security projects, as well as business continuity initiatives as they relate to disaster recovery, business recovery, business resumption, contingency planning, homeland security, bio-terrorism and health alerts.

## **state IT management initiatives**

This category encompasses statewide efforts in the areas of planning, policy-setting, standards development, public/private partnerships, recruitment and retention, training, management practices, outsourcing, consolidation or decentralization, major technology studies, strategic initiatives, budget and cost containment, project management and quality.

**More information on 2005 award winners and nominees is available online at [www.nascio.org](http://www.nascio.org).**

# communications infrastructure

## North Carolina Taxpayer Assistance and Collection Center

The North Carolina Taxpayer Assistance and Collection Center (TACC) was implemented in October 2003 as a joint project between the North Carolina Department of Revenue (DOR) and the North Carolina Office of Information Technology Services (ITS). The purpose of this project was to implement a centralized taxpayer telecommunications service center that would serve as the main gateway for interaction between DOR and the citizens of North Carolina and was part of an overall Project Tax Collect initiative to increase the tax collection revenues for the state.

Prior to the implementation, the answer rate for incoming calls was, at best, 25% with extended wait times. Today, the answer rate is 90%+, except during peak filing periods. Many calls are handled by an IVR system without agent interaction. The TACC also implemented a predictive dialer that allows for the automated outbound dialing of phone numbers for collection purposes without agent interaction until contact is made. This has greatly reduced the amount of time spent by collection agents in manually dialing numbers and making no contact.

The TACC is a major component of the collection initiatives implemented by DOR over the past four years, which has resulted in nearly \$1 billion of "new" revenue for the state. In the first full fiscal year of operations, the TACC collected nearly \$46 million, answered 651,854 calls from taxpayers, and had operating expenditures of less than \$2 million. The IVR also handled 1.5 million calls during that time.

Funds used to implement the TACC and its continuing operations are paid

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from receipts (fees) charged to taxpayers who fail to pay their tax obligation in a timely manner. No general tax revenue was used for the implementation of the project or its on-going operational costs.

The technology utilized by ITS for this initiative laid the foundation for the implementation of an enterprise service that today is being offered to all state agencies. The enterprise nature of the technology allows agencies to provide call processing functions to their organization that they normally would not be able to afford by leveraging the benefits of centralized call processing and still maintaining agency identity to the citizens.

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"The call center project represents the best of the best with regard to shared services. The Department of Revenue took the lead in the application component and Information Technology Services helped provide the infrastructure. In addition, the call center is located in a rural part of the state, so the project advances economic development in a depressed area as well as providing excellent service to the taxpayers of North Carolina."

*E. Norris Tolson, Secretary of Revenue, State of North Carolina*

# digital government: government to business

## Michigan Motor Fuel Automation Project

The Michigan Motor Fuel Automation Project was initiated in fiscal year 2003 to improve electronic reporting and remitting of taxes levied on motor fuels. The intent was to implement an automated, vendor-state processing system to receive, validate, record and track motor fuel transactional activity from pipeline to retail pump to tax payment.

The project included development of several integrated systems to handle customer financials, centralized correspondence, and electronic filing and tracking of fuel tax information. ACS was selected to customize their existing tracking system for motor fuels and integrate it into existing and newly developed state systems. The systems are connected via Web services to allow each system to perform their individual function(s) and to exchange information electronically for increased and enhanced processing.

The Michigan Department of Treasury implemented the guidelines of the Federation of Tax Administrators Motor Fuel Uniformity Committee prior to beginning the project. This resulted in uniformity of Michigan's tax schedules with other states, easing the burden on industry. Many of Michigan's filers were already utilizing ANSI X.12 to submit their tax information to other states, as well as to the federal government. The department also offered a choice of filing methods which allowed industry to select the method which best suited their size and resources.

The program has provided a multitude of benefits including: streamlined tax

filing for Michigan motor fuel taxpayers, creation of a "level playing field" for industry, improved timeliness of tax processing, improved quality of tax data, consistent application of audit rules, improved customer service and significant increases in state motor fuel tax revenues.

In the first year, Michigan realized increased revenue of \$23.2 million. An additional \$15.9 million was collected during the second year of operation.

The success of this project provided the department with the leverage to begin the Tobacco Tax Automation Project. This project is currently in development, is scheduled for full deployment by June 2006, and is expected to achieve similar results in improved efficiencies and revenue increases.

"This project arose from a need to provide a uniform, e-filing channel for our taxpayers and a better foundation of electronic data for our tax processing. Our partnership with ACS answers both needs and has increased revenue collections for Michigan. This is a very successful implementation."

*Craig Galler, Project Manager, Michigan Department of Treasury*

**NASCIO Corporate Partner:** ACS Government Solutions

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# digital government: government to citizen

## Michigan Talent Bank

Michigan's recent unemployment rate exceeded national levels and thousands of qualified workers were having difficulty locating job opportunities. Parallel to this, thousands of job vacancies were going unfilled. This disconnect between labor supply and demand posed a unique challenge. In response, Michigan developed a web-based labor exchange system designed to reduce unemployment in the state, reduce recruitment costs for Michigan businesses, and encourage economic growth by connecting job seekers with job opportunities.

The Michigan Talent Bank (MTB) is an Internet-based self-service labor exchange system, containing a comprehensive database of jobs and resumes. MTB can be used by every employer and job seeker in Michigan and there is no fee to use the system. Job seekers can post resumes to the system or directly search job orders posted by employers. Employers can post job orders as well as directly search resumes posted by job seekers. In March 2005, the Talent Bank was modified to allow companies to post internships available for college and university students. In one month, over 40,000 internship searches were performed.

The Michigan Talent Bank can be accessed through Michigan's Career Portal <http://www.michigan.gov/som/0,1607,7-192-29940---,00.html>. The Career Portal averages more than 300,000 monthly page views and there are over 608,000 active resumes in the system. On average, 40,000 available job openings are posted to the site with 80,000 resume searches conducted each month. Job seekers conduct over 1 million job searches each month.

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Almost 50% of the companies that have registered to use the MTB have hired an employee through this labor exchange system.

This system has been a key tool in moving Michigan's economy forward and allowed the state to re-direct over \$10 million in annual costs associated with face-to-face job intake services to other important economic development initiatives.

"For several years now, the development team has provided a climate of continuous improvement for the Michigan Talent Bank. A new system architecture has been introduced to provide a stable, standards-based platform and the component-based development framework provides the capability to add new modules and system enhancements for job seekers and employers. By reusing the system components, our staff is able to concentrate on developing the unique business rules necessary for each new feature that is introduced. Increasing integration with other state web sites is a key strength of the system."

*Howard Boyer, Technology Manager, Michigan Department of Information Technology*

# digital government: government to government

## Utah CommuterLink Program

In 1996, the Utah Department of Transportation (UDOT) launched a statewide traffic management program, referred to as CommuterLink. Since its inception, CommuterLink has become a national role model for its effectiveness, cross-jurisdictional operations and innovative use of technologies.

CommuterLink is currently comprised of UDOT, the Utah Transit Authority, the Department of Public Safety, dozens of cities and counties, local metropolitan planning organizations (Wasatch Front Regional Council and Mountainland Association of Governments), and local primary and secondary emergency (PSAP) dispatch centers within the Salt Lake Valley. All of these agencies work together to build and operate a system that continues to increase safety and save lives and resources.

Based on the notion of improving transportation and safety through the sharing of road condition, weather and incident information with as many transportation and public safety practitioners as possible, CommuterLink first demonstrated its effectiveness during the 2002 Winter Olympics. The success of CommuterLink lies not only in the extensive network of closed circuit television cameras, dynamic message signs, road weather information systems and traffic monitoring stations, but also in how all of this information is managed and shared amongst the partners.

More recently, UDOT worked with five partners to optimize the sharing of data through a \$1.3 million federal- and state-funded field operational test (FOT) to integrate their computer-aided dispatch (CAD) systems. The goal

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of the FOT was to automate the notification and sharing of information between CAD systems through electronic data interfaces. Project partners had to come to a consensus on what data were needed, and how to share and guarantee data security.

An assessment performed in 2004 by the University of Utah showed that CommuterLink generates an annual cost savings of \$179 million, for a benefit - cost ratio of 16.7 to 1. An important part of these savings are safety benefits, including the prevention of 948 accidents and 3.1 fatalities per year.

"Both public safety and transportation agencies need quick and accurate information to fulfill their missions to protect the public, safeguard crash sites, and respond appropriately to emergency situations. In Utah, the departments of public safety and transportation collaborated to optimize data-sharing by integrating their computer-aided dispatch systems. We've been able to work through territorial issues and realize that sharing resources and working together actually makes our jobs easier."

*Stephen Fletcher, Chief Information Officer, State of Utah*

# enterprise information architecture

## North Carolina Statewide Technical Architecture

In 1994, North Carolina recognized the need for a comprehensive enterprise architecture (EA) that outlined the state's strategy for implementing, managing, and supporting technology-based business solutions. Following the EA strategies and related initiatives would then position the state to maximize the returns and benefits of its investments in technology and reduce the associated risks. North Carolina began embracing an open architecture approach to information technology (IT) as early as 1977. In 1996, this vision was solidified through the development and implementation of the North Carolina Statewide Technical Architecture ([www.ncsta.gov](http://www.ncsta.gov)).

By design, the North Carolina Statewide Technical Architecture (NCSTA) has become engrained in the IT culture of state government and within the vendor community. The effectiveness of this implementation has been accomplished through establishing clear architectural documents, processes, governance, and statewide IT procurement model. This framework helps ensure that the technology solutions agencies implement are aligned with business requirements and consistent with the principles, standards, and practices outlined within this body of work.

A fundamental premise of the NCSTA is designing and deploying IT systems that are highly adaptable to changes in business and technology. An EA framework must also be adaptable in order to endure and succeed over time. The NCSTA has proven this adaptability by surviving changes in technology, government leadership, IT governance, legislative, and support

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staff. This is accomplished through an approach that allows, expects, and embraces change.

The North Carolina Enterprise Architecture Program supports a significant portfolio of IT projects, in excess of \$500 million since inception, and is the impetus behind many enterprise IT initiatives and common services.

The NCSTA is managed centrally, but belongs to all agencies in state government. Throughout its life, the body of work is the result of the dedication of many individuals moderated by a keen understanding in the culture of North Carolina state government and the benefits of enterprise architecture.

"North Carolina was the first state to adopt a technical architecture, and in the several years since its initial publication, the architecture has evolved from a set of paper-based principles to serving as the unifying framework for IT investments across state government. The architecture provides guidance and best practices, and it represents a group effort between Information Technology Services and other state agencies."

*Bill Willis, Deputy Chief Information Officer,  
State of North Carolina*

# innovative use of technology

## Washington AMBER Alert 911 Web Portal

Time is the enemy of an abducted child. According to a study conducted by the Washington State Office of the Attorney General, 74 percent of abducted children who are murdered are dead within three hours of the abduction. In 2002, the Washington State Patrol adopted an AMBER Alert Program; however, the notification process was too slow and cumbersome. Law enforcement officials needed an efficient, failsafe method to swiftly distribute information far and wide, yet funding was nonexistent.

In response, the Washington State Department of Information Services, the Washington State Patrol and a public/private partnership of states, law enforcement, the broadcast media and private corporations worked cooperatively to develop the AMBER Alert 911 Web Portal: <http://www.amberalert911.com>:

- The portal automatically and simultaneously distributes the same, up-to-the-minute, real-time information to all law enforcement agencies, broadcasters, highway signs, 9-1-1 call centers, lottery terminals, transit authorities and utility companies, which alert vast numbers of people.
- Individuals can quickly and easily subscribe to the portal to receive alerts.
- The portal notifies subscribers by e-mail, pagers, text-enabled cell

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phones and faxes, with detailed information and photos of an abducted child, and available information about the kidnapper and vehicle.

- Private corporations support the portal through sponsorships, which cover recurring operational costs, making the system available to states, law enforcement, broadcast media and subscribers at no cost.

Portal subscribers become the eyes and ears to help law enforcement amplify the impact and reach of an alert among a much larger population and across a larger geography.

"Amber Alert 911 Portal subscribers can now be the eyes and ears to help law enforcement find abducted children. This public/private partnership is proof of how cooperative efforts can create effective solutions that improve government services."

*Gary Robinson, Chief Information Officer,  
State of Washington*



# security & business continuity

## North Carolina Statewide Security Initiatives Program

In 2004, North Carolina undertook an assessment of the information technology security posture of its executive branch agencies, identifying areas that needed improvement. The security assessment documented broad areas where security was needed to protect the confidentiality, integrity and availability of the public's data. The cost of improvements recommended totaled \$53 million, including \$39 million to replace outdated desktops.

To begin addressing the needs identified in the assessment, the North Carolina General Assembly appropriated \$3 million for security remediation. The General Assembly also moved to centralize IT security within the Office of the State Chief Information Officer. Using the results from the assessment of executive branch agencies and the available funding, the North Carolina Office of Information Technology Services (ITS) identified six areas which would have broad impact on the information technology security posture of all agencies and have long lasting effects:

- Improvement of agency border defenses through network redesign and firewalls.
- Improvement of wireless network security.
- Expanded risk management and business continuity planning.
- Completion of statewide security framework (policies, procedures, standards and architecture).
- Development of a statewide approach to anti-virus/anti-spyware software purchases and licenses.
- Establishment of enterprise security awareness and training.

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As a result of this assessment, every executive branch agency now has undergone a business risk analysis, completed a business continuity plan and been given the opportunity to have a Certified Information Systems Security Professional on staff. In addition, a statewide anti-virus/anti-spyware survey has been conducted, revealing a broad range of pricing for the same or comparable products. Those figures in hand, ITS is now seeking proposals for purchasing licenses for all agencies, a move that should reduce the overall costs of anti-virus/anti-spyware. These initiatives, combined, strengthen the security of the state network, resulting in better protection of state resources.

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"Cybersecurity is one of the most important areas we address in North Carolina. The North Carolina Security and Business Infrastructure project demonstrates that providing security is more than installing firewalls. It is people, policies, planning and taking action where required."

*George Bakolia, Chief Information Officer,  
State of North Carolina*

# state IT management initiatives

## Michigan Implementation of Consolidated IT Services

In fiscal year 2001, the pressures of the economic downturn severely affected Michigan's manufacturing-based economy, decreasing the state's revenues even as it fueled demand for government services. Reductions in the state's workforce drove agencies toward increased automation, and citizen demand for Web-based and IT services escalated. In response, the Michigan Department of Information Technology (MDIT) was created in October 2001 by Executive Order No. 2001-3 to achieve a unified, cost-effective approach for managing information technology among all executive branch agencies. Information technology resources and functions from 19 state agencies were centralized, encompassing all IT personnel (1,700 plus), equipment, and activities. The department's initial charge included centralizing IT policy-making; unifying strategic information technology planning; improving information, project, and systems management; managing enterprise projects; consolidating infrastructure and application development; and addressing enterprise security needs.

Michigan used a phased approach, spanning four years and two administrations, and placed a premium on change and risk management, customer, cross-boundary and service relationships, and outreach processes. Existing organizations and functions were consolidated, several were materially strengthened or changed, and a number of new functions, processes and organizational units were created.

The consolidation enabled major reductions in staff and expenditures, while maintaining or increasing service levels. Total Interdepartmental grant

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spending (IDG) was reduced from \$465.6 to \$350.5 million (24.7%). State employee staff was reduced from 2,064 to 1,762 (15%), and contractors from 1,764 to 469 (64%), for a total reduction of 34 percent.

The debate on the merits of centralization versus decentralization has reached a tipping point. Many states are actively assessing or taking centralization or consolidation actions. The Michigan experience offers lessons on both practices that can maximize benefits as well as minimize risks. The elements of Michigan's approach are reproducible as individual initiatives or as part of overall IT consolidation for governmental units seeking cost savings, operational efficiencies, and increased effectiveness.

"Our successes in consolidating Michigan's IT services would have been impossible without the strong support of Governor Jennifer Granholm. With the support of our Governor, our partner agencies across the state, and our more than 1,700 dedicated employees, we have been able to bring savings to Michigan while making access to government services easier for Michigan citizens."

*Teri Takai, Chief Information Officer, State of Michigan*

# RECOGNITION AWARDS | HONORABLE MENTIONS

## **communications infrastructure**

Utah Wireless Integrated Network

## **digital government: government to citizen**

ServiceArizona

Kansas WebFile

Benefits without Barriers: Improving Citizen Access to Social Services through Technology (COMPASS - COMmonwealth of Pennsylvania Access to Social Services)

## **innovative use of technology**

Michigan - Using Decision Support and Advanced Analytics for Innovative Fraud Detection

## **state IT management initiatives**

Information Technology Governance in Pennsylvania



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