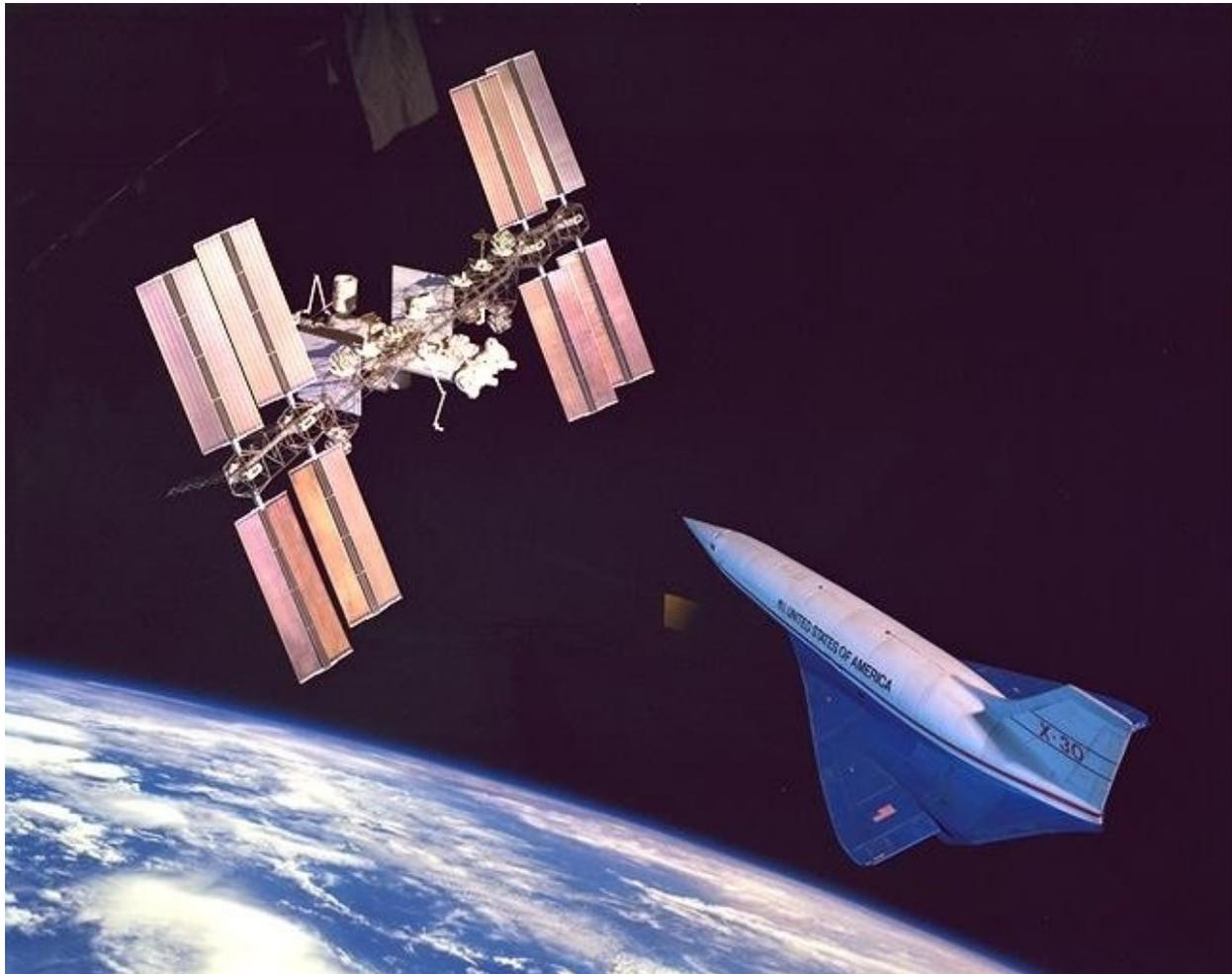




## **STATE OF VERMONT**

# **Information Technology Strategic Plan**



## **CHARTING THE COURSE TOWARD VERMONT STATE GOVERNMENT'S INFORMATION TECHNOLOGY FUTURE**

**FY 2007 - 2011**  
12<sup>th</sup> Edition -- January 2007

**This page left intentionally blank**



State of Vermont  
Office of the CIO  
133 State Street  
Montpelier, VT 05663-0210

Thomas Murray, Chief Information Officer

## Message from the Chief Information Officer (CIO)

This document is the 12th edition of the State of Vermont Information Technology Five-Year Plan which is prepared pursuant to 3 V.S.A. 2222(a)(9). This plan is published by the Office of the Chief Information Officer with information submitted by every agency and department in state government. The plan submitted in 2006 was a vast improvement over previous plans and included detailed descriptions of numerous current and upcoming projects. This plan continues on the solid work described in last year's plan as well as outlining new projects that have emerged. Three themes connect the projects listed in this plan, enterprise vision, security focused and project oversight.

**Enterprise Vision:** As the state invests in technology projects we must move beyond the "silo" nature of past projects and leverage similar needs across state government. Projects like the Web Portal, Grants Management and Document Management are taking the approach that all agencies should be able to enroll.

**Security Focused:** We must layer security and privacy into all of our systems, new and old, to protect our citizens' information. This is being accomplished with strict policies, sound system management and annual assessments to ensure that gaps do not exist.

**Project Oversight:** The value of quality project management across state government is being fulfilled. Project Management ensures that projects are well designed, business requirements are well defined and that projects are on-time and on-budget.

Across the nation, as states face the realities of an aging workforce and as budget pressures increase, states are looking to the promise of information technology to deliver services more efficiently to citizens. But the challenges presented by information security and protecting citizen's privacy limit our ability to deliver on these promises. As the Chief Information Officer for the state of Vermont it is my job to bring these two diverse concepts together and deliver systems that meet our citizens' needs and protect all sensitive information. Governor Douglas often uses the phrase, "it isn't an either-or debate, Vermonters want both", and we are committed to bringing his vision to the state through information technology.

This plan presents the vision, goals and strategies for the State of Vermont to move forward together with information technology through the remainder of this decade.

I would like to thank the many contributors who helped develop this very important document that lays the foundation for Vermont's technology future.

# EXECUTIVE SUMMARY

---

A compass helps guide us from one destination to another. In the same way, the State of Vermont's five-year information technology plan serves as a compass, as State government heads into a technologically more advanced future.

## Vision

This trip begins with a vision. State government will identify business processes to determine which services can best be delivered with the help of technology to provide Vermonters with the most efficient and cost-effective services possible.

## A Singular Focus

When it comes to technology, State government will think and act as one. It will have one driver: business processes will drive technology solutions. Most important, Vermont citizens are the sole reason State government uses technology. We will enhance delivery of services to Vermonters with technology when appropriate.

## Challenges

A renewed focus and increased reliance on technology must meet a few challenges in the near-term future. Like most states, Vermont must do more with limited financial resources.

Complicating the challenge, a large percentage of state workers are eligible to retire during the next decade. In the past, technology decisions within State government were decentralized, leading to potential duplication and waste. Also, many agencies and departments continue to maintain aging and obsolete systems and software.

## A Guide to the Future

The Governor's Strategic Enterprise Initiative will guide the State's use of technology. For Vermonters, this will mean higher-quality and faster services, streamlined processes and a less costly government. For state employees, this will mean increased job satisfaction due to focused training, less administrative, paper-intensive processes and an improved ability to serve the public well into the future.

## Success Stories

While State government plans for the future, it also claims recent information technology successes. The Agency of Transportation's Department of Motor Vehicles installed kiosks in local offices, which cut wait times for customers. The Agency of Commerce & Community Development collaborated with the Agency of Transportation and the Agency of Natural Resources to create a Geographical Information System that will be shared by multiple agencies. The State Treasurer is replacing an obsolete system to provide a more efficient and secure retirement program for state employees.

## Current Projects

<b>Enterprise Web Portal</b>	A project to coordinate all state web sites to ensure a common look, a common approach, an easy way for Vermonters to navigate multiple state web sites, and an effective way to manage Web based information and services.
<b>VT DRIVES</b>	<b>Agency of Transportation/Department of Motor Vehicle (DMV)</b> Streamline business processes, improve timeliness of data and update technology without lengthening the customer service wait time.
<b>Vermont Pension Administration System (VPAS)</b>	<b>State Treasurer:</b> To replace the Office of the State Treasurer's 25-year-old legacy retirement systems with more efficient business processes that are supported by newer information technology.

<b>Unemployment Insurance Quarterly Wage &amp; Tax Filing</b>	<b>Department of Labor:</b> The department implemented Internet-based tools that allow customers to calculate taxes and input information while drastically reducing the costs of redundancy for both the department and employers.
<b>Vermont's Health Care Reform Plan</b>	A project to implement the Catamount Health Premium Assistance Program and the Employer Sponsored Insurance (ESI) Premium Assistance Program.
<b>Enterprise Project Management Office</b>	The office was established to ensure that project management is recognized as a professional discipline worthy of attention by business leaders and IT professionals throughout the state enterprise.
<b>Enterprise Network Security</b>	A project to proactively manage risk, monitor compliance and identify and mitigate evolving security threats. This project is intended to benefit all state government branches and partners as well as the citizens of the state.
<b>Geographic Information System</b>	Shared Technology to Provide Geographic Information and Mapping. A shared application to provide a web based solution to easily access edit and report spatial data.
<b>Consolidating Email Services</b>	A project to create an effective and efficient enterprise-wide email environment for use by all state employees.
<b>Wide-Area Network "Backbone" Upgrade</b>	The Department of Information and Innovation initiated an upgrade to the network "backbone" in 2006. This project will continue into 2007.
<b>Policies and Standards</b>	The State Technology Collaborative (STC) and other committees have worked with the Office of the CIO to establish uniform policies and standards.

### Upcoming projects

Other information technology projects are in various stages of implementation and planning.

<b>Coordinating Timekeeping and Payroll</b>	A project to replace both a manually intensive paper process and an outdated payroll front-end system while ensuring the business continuity of related interfaces statewide.
<b>Improving State IT Infrastructure</b>	A massive upgrade of all underlying components of the Waterbury Complex's IT infrastructure to provide a solid and secure foundation in support of agency services.
<b>Integrated Tax System (ITS) Project</b>	A project to move five discrete tax applications currently housed on the DII mainframe into an integrated tax system (ITS) with a relational database.
<b>Vermont Justice Information Sharing System</b>	A project to choose an analysis tool to determine the information to be exchanged, design a system that will accommodate the requirements for justice information and create a mechanism for the monitoring, coordinating and approval of IT projects within Vermont's criminal justice agencies.
<b>SharePoint &amp; Project Server</b>	A networked service that allows for the sharing of current information between staff in several locations.
<b>Real ID</b>	Implementation of the REAL ID Act of 2005
<b>Enterprise Geographic Information</b>	A project to find a cost-efficient way for the Vermont Center for Geographic Information to collaborate with other entities statewide to provide this information in a cost-effective enterprise approach.
<b>Enterprise Grants Management</b>	This project is a common, statewide solution for the management of grants.
<b>Voice over IP (VoIP)</b>	Voice over Internet Protocol offers the promise of reducing traditional phone costs, such as toll and monthly line charges and presents the option of video conferencing between state agencies and is a cost effective way to deploy employees to other locations in emergency situations.

### Charting a New Course

As Vermont faces numerous challenges over the next few years, it is our goal to make the promise of technology a reality. Technology solutions will result in greater security, privacy and convenience for Vermonters. Advanced technology and a highly trained State government workforce, when used with a common purpose and approach, will help provide Vermonters with world-class services in the most efficient way possible.

---

# STRATEGIC ENTERPRISE INITIATIVE

---

## **Strategic Enterprise Initiatives**

A Strategic Framework to Transform State Government into an Enterprise-Focused Organization

"I will seek to change the culture of government from one that is so attached to the status quo it resists even those changes that will move us forward, to one that embraces positive change."

-Governor Jim Douglas, 2003

---

In conjunction with the five-year information technology strategic plan, the State has undertaken the Governor's Strategic Enterprise Initiative, this effort, involving all of State government, focuses on analysis of business processes and how they can be improved through information technology and enhanced workforce planning and training.

The initiative is to provide Vermont Citizens with better and faster service; higher productivity and cost savings. The multi-year effort is aimed at reducing the duplication of services, modernizing business methods, streamlining processes, improving services, provide essential workforce development skills and develop a sustainable staffing model that will help to ensure effective government service. For Vermonters, this will mean higher-quality and faster services, streamlined processes and a less costly government. For state employees, this means increased job satisfaction due to focused training, less paperwork and an improved ability to serve the public with a staffing model that is sustainable for the long term.

Since its inception, the SEI team has taken a number of important steps towards assessing opportunities to eliminate redundancy, create shared services, streamline delivery, and develop and implement enterprise IT projects to meet our goals. The following projects are examples of how the goals of SEI are being met: Web Portal Project, Grants Management System, Time and Labor Project, Enterprise Content Management (ECM) and Enterprise Project Management Office.

# TABLE OF CONTENTS

---

INTRODUCTION .....	8
Charting Your Course Through this Strategic Plan .....	8
VISION .....	9
Charting the Course for Technology's Future .....	9
A LAYPERSON'S GUIDE TO KEY TERMS .....	10
ONE!.....	11
Charting the Course for Technology's Future .....	11
CHALLENGES.....	12
CURRENT PROJECTS .....	13
Enterprise Web Portal .....	13
Vermont Driver & Registration Information & Verification Enterprise System - VT DRIVES .....	15
Vermont Pension Administration System (VPAS) <i>Re-tooling to keep a promise</i> .....	16
Unemployment Insurance Quarterly Wage & Tax Filing .....	17
Vermont's Health Care Reform Plan.....	18
Enterprise Project Management Office .....	19
Enterprise Network Security .....	20
Shared Technology to Provide Geographic Information and Mapping .....	21
Consolidating Email Services .....	22
Wide-Area Network "Backbone" Upgrade.....	23
Policies and Standards.....	24
UPCOMING PROJECTS .....	25
Coordinating Timekeeping and Payroll .....	25
Improving State IT Infrastructure .....	27
Vermont Department of Tax (VDT) Integrated Tax System (ITS) Project.....	28
Vermont Justice Information Sharing System .....	29
SharePoint Server 2007 .....	30
Real ID .....	31
Enterprise Geographic Information.....	32
Enterprise Grants Management.....	33
Voice over IP (VoIP).....	35
CHARTING A NEW COURSE .....	36
APPENDIX.....	37
Statistical Information.....	37
Acknowledgement.....	41

# INTRODUCTION

---



## ***Charting Your Course Through this Strategic Plan***

On the following pages, you will read about the State of Vermont’s technology vision, its core principals regarding technology, its challenges, recent successes, current initiatives, and future projects.

We have written this plan in plain English, because understanding how technology can serve all Vermonters needn’t be as complicated as technology itself. The world has changed, and technology is among the greatest drivers of this change.

It is our intent to show how continued deployment of technology, when used correctly, will help meet the state’s needs today and well into the future. Around the world, technology has helped improve productivity, deliver services in a time-efficient manner and helped to save precious financial resources. We should expect no less from technology used by the State of Vermont.

The success of Vermont’s information technology plan depends on many players. They include the Governor and the Legislature, who oversee technology’s role in government and draft laws to ensure its proper use. They include agency and department executives, the state Chief Information Officer, technology managers and the hard-working technology employees who must work together to help ensure success. And they include Vermonters – the ultimate customers – who will take advantage of advances made possible by technology. While each of these participants has different roles and responsibilities involving technology’s future in the delivery of state services, collectively they are all responsible and ultimately accountable for the plan’s success.

This document is not intended to provide a complete guide to technology developments in Vermont State Government. Instead this report provides detail of several projects that best represent the technology goals of the state. For further information about technology projects not detailed in this report please refer to the “Planned Information Technology Projects Detail (PlanIT)” report. You may find this online at:

[cio.vermont.gov/planning\\_and\\_analysis](http://cio.vermont.gov/planning_and_analysis)

# VISION

---



## *Charting the Course for Technology's Future*

**T**he rapid pace of advancement in technology requires a well thought out vision for implementing technology. The State of Vermont's vision for this Five Year Plan is as follows:

**As technology continues to evolve, information technology staff throughout state government will remain aware of the latest developments in order to use technology to help serve all Vermonters. We will identify those business processes which can best be delivered with the help of technology. We will adopt a holistic "enterprise approach" to guide our IT planning. Based on an analysis of business processes, we will use technology to serve Vermonters in the most efficient and cost-effective way possible. We will work together across state government to implement technology that will help to improve delivery of services.**

# A LAYPERSON'S GUIDE TO KEY TERMS

---

**Enterprise:** Builds collaboration and cooperation across all agencies creating long-term solutions.

**Agency:** A state organization that can include many diverse departments.

**Department:** Part of an agency devoted to a single mission, as opposed to an agency's many missions.

**System:** Typically refers to information technology hardware that is linked together such as servers, printers and workstations.

**Legacy system:** A previous generation of hardware and/or software; often antiquated and unsupported by vendors.

**Application:** Also known as software, which makes programs run on hardware.

**Information system:** Combines multiple applications, such as a database and payroll software.

**Architecture:** The design of hardware, software or a network; uses protocols and interfaces to interact with other components and provides for future flexibility and expansion.

**Network:** Transmits any combination of voice, data and video between users; includes hardware, such as routers and switches, and software, such as a security application.

**Local Area Network (LAN):** A network that permits users to communicate within a confined geographic area.

**Wide Area Network (WAN):** A network that permits users to communicate within a wide geographic area.

**Strategic Enterprise Initiative:** The Strategic Enterprise Initiative (SEI) is an ongoing effort that began in 2006 to improve the business practices of the State of Vermont and to identify opportunities to use information technology to make the state more efficient and effective.

**Kiosk:** A stand-alone structure that allows customers to self-serve, such as through an ATM.

# ONE!

---



## *Charting the Course for Technology's Future*

*Our compass for tomorrow*

**A** captain uses a compass to ensure that he remains on course. In the same way, we will use the following guiding principles to ensure that technology goals become reality.

- \* **VERMONTERS ARE THE ONE.** They are the citizen who renews a driver's license, the business owner who has questions about incorporation, the young mother who needs help to ensure her child's continued good health and the traveler who depends on fool-proof communications when a crisis occurs on our roads. They are our customers. They are Vermonters. Improving services for them is the reason why we use technology.
- \* **WE WILL THINK AS ONE.** By working collaboratively, agency executives and technology managers will work together to ensure that all technology solutions work as efficiently and effectively as possible for Vermonters both today and in the future.
- \* **WE WILL ACT AS ONE.** State government services are many and they are diverse. Regardless of service, the state's agencies and departments will work collaboratively and follow best practices - uniform technology practices and policies – to help ensure the quickest delivery of services in the most efficient and cost-effective way possible.
- \* **WE WILL HAVE ONE DRIVER.** Mission based business processes will drive technology issues, not vice-versa. We will employ technology solutions when appropriate. We will evaluate business processes and consider changes, when necessary, to take advantage of technological advances.

# CHALLENGES

---



*"The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy."*

*(Dr. Martin Luther King Jr.)*

The challenges we face involving technology may not be as daunting as those spoken about by Dr. King, but they remain challenges nevertheless. Today, the State of Vermont faces a number of challenges regarding technology:

- \* **Limited financial resources:** Like most states, Vermont must do more with limited financial resources. Technology is one way this can be accomplished by helping to provide improved services more efficiently.
- \* **Fewer human resources:** Efficiency will play a great role in the new future as a large percentage of State employees, including technology workers, are eligible for retirement within the next five to 10 years. The state's readiness to adapt during the coming retirement bubble will rest squarely on its ability to use technology efficiently, while training employees – the state's most valuable resource – for potential cross-functional opportunities and higher level work.
- \* **Differing practices and policies:** To achieve the greatest efficiencies and cost-savings, state government must adopt a new mindset. In the past, technology decisions and purchases were decentralized. This created duplication and waste. By creating a uniform set of guidelines, policies and practices, we will eliminate duplication and waste while continuing to make decentralized decisions that are best for each agency and department.
- \* **Obsolete systems and software:** More than any other facet of business, technology becomes outmoded quickly. Although progress has been made in replacing obsolete technology, challenges remain. We will explore all solutions, including enhancements instead of outright replacements. New purchases will have built-in "scalability," meaning systems and software in one agency may be altered, or scaled, up or down to achieve similar technology goals in other departments, saving time and considerable dollars. As technology becomes dated, we have an opportunity to create an enterprise-wide architectural framework to ensure that all technology is the right size and fit for particular needs.

# CURRENT PROJECTS

---



*The following section provides information about the recent successes of several IT initiatives. Some projects have been fully realized and others, while partially realized, are still ongoing. All of these projects demonstrate the resolve of numerous individuals in bringing technology goals to fruition.*

---

## Enterprise Web Portal

*Vermont's Gateway to the future*

---

### **The Problem:**

State departments and agencies each administer their own web pages. This results in a duplication of effort, different design approaches, and difficulty in navigating from one state web site to another.

### **The Challenge:**

To coordinate all state web sites to ensure a common look, a common approach and an easy way for Vermonters to navigate multiple state web sites.

### **The Solution:**



The State will launch a new, comprehensive web site by June 30, 2007. This state web site, known as a web portal, will bring efficiency and standardization to common business processes within state government. The project also represents an opportunity to bring the state fully into the digital age.

This project is intended to benefit all state branches, partners and Vermonters. It will improve customer satisfaction and greatly reduce transaction costs.

### **Self-funded model**

In May of 2006 the legislature created the Vermont Web Portal Board and authorized a self-funded, e-government environment. With this model the private sector covers the cost to build, maintain, enhance and market online services on behalf of state government. Nominal fees, applied primarily to high-value services for the business community, cover both the private-sector provider's costs and improvement in the state's online services. Because the provider is paid only when services are used, the provider has a strong incentive to deploy sound marketing and communications programs to promote the availability of online services.

In the spring of 2006 the Chief Information Officer's (CIO) Office began writing a Request for Proposals (RFP) outlining the technical requirements of the system the state will need to implement this policy. In May the RFP was published. A vendor was selected during the summer and a contract was signed at the beginning of October with Vermont Information Consortium (VIC), the winning bidder.

The project was officially launched by the end of October and the CIO's staff has been working with VIC and various agencies and departments to implement the plan. There are

three major projects required initially according to the contract.

The first major project will be to create a service that will automate the sale of DMV driver records to data aggregators and insurance companies. The convenience fee for this service was approved at the inaugural meeting of the Web Portal Board in November and reviewed by the Joint Fiscal Committee a few days later. VIC is now in the process of implementing this service with cooperation from DMV and it is scheduled to go live in early April.

The second major project is to create a hosting environment for state web sites that will serve as the enterprise standard into the future. VIC is currently working with their parent company National Information Consortium (NIC) to create this environment. This environment will include a content management system (CMS) that will serve as an interface for all state employees to

manage their Web content. This project is scheduled for completion in early April.

The third and final project is the redesign of the Vermont Web Portal at Vermont.gov. This project was officially kicked off in January of 2007 and will conclude with the launch of the new site in the summer. The current target date for launch is June 30, 2007. For this project the CIO's Office and VIC are partnering with a local marketing firm, Spike Communications, to develop a Vermont specific interface and navigation system to implement on the system VIC is building.

The partnership between the state and VIC is only a few months old and so there have not been a great many milestones reached as yet, though a strong working relationship is evolving between VIC and various state entities. VIC has already done work under the contract for the Tax Department, the Judicial Branch and DMV.

---

## Vermont Driver & Registration Information & Verification Enterprise System - VT DRIVES

---

### **The Problem:**

The Department of Motor Vehicles computer systems are on several platforms, with the core business systems over 30 years old. Processes are redundant, programs inflexible, data updates are not timely and federal and state requirements continue to grow and change. Law enforcement throughout the State and Country rely on this information that is often not updated for several days after a transaction has occurred. Many other State Agencies and data sharing partners also rely on this information. The IT support staff is stretched thin in supporting multiple computer platforms, programming languages and data structures. Data sharing is also difficult among the various applications within the Department.

### **The Challenge:**

To streamline the business processes, improve timeliness of data and update the technology to allow faster response to change, without lengthening the customer service wait time.

### **The Solution:**

In 2003 the department initiated a process with a consultant to document in detail the current business practices and flows, the support organization and the existing computer systems supporting them. This voluminous set of documentation served as the basis for a Request for Information asking consulting companies with experience in Motor Vehicle applications to propose solutions to replace the existing business process flows and computer applications.



The department awarded a contract in the spring of 2006 for a 33 month project to re-engineer the business process flow and replace the existing computer applications

with a customer-centric application that updates data in real time. The selected company has experience in a number of other states and a Motor Vehicle Framework to use as a starting point. The new system will be implemented in two phases to minimize risk and implement system components as soon as possible.

The DMV has designated a team of employees skilled in various aspects of the business to work with the contractor for the duration of the project. State technical and business project managers have also been named to ensure that resources are available when needed, that the State responses are timely, and that the contractor produces desired results on time and budget.

The Business Process flow has been redefined for the new system and the detailed requirements definition process is underway. The Point of Sale (POS) system has been identified as a sub-system to be implemented early and then be integrated into the application as it is developed. The Department collects over \$240 million in revenues each year. By implementing the POS earlier in the project, the department will no longer be required to maintain obsolete, and expensive to maintain slip printers. Check processing equipment that is in need of replacement will not need to be purchased.

The resulting system will provide a complete picture of a citizen's vehicle and licensing interactions and assets quickly. Conducting multiple transactions will be easier and there will be far fewer errors in the information stored. The new system is being developed using current technology, platform and tools. Real time edits and updates and a relational database eliminate redundancy in business processes, and data stored. The design will allow many of the legislative changes to be made by non-programmers. The development staff will have only one set of development tools to use in supporting the system on-going.

---

## Vermont Pension Administration System (VPAS)

*Re-tooling to keep a promise*

---

### **The Problem:**

The number of retirees is increasing, straining the retirement systems' ability to deal with the increased workload, which is estimated to grow at a rate of 12 to 15 percent over the next several years. More than 42,000 active, vested, and retired teachers, state, and municipal employees have retirement information in three different systems.

### **The Challenge:**

To replace the Office of the State Treasurer's 25-year-old legacy retirement systems with more efficient business processes that are supported by newer information technology.

### **The Solution:**

In 2003 a management consultant was retained to review the Retirement Division's current operations. Many of their recommendations were implemented during 2004 and 2005. A strong project team was assembled to implement the changes. Stakeholders from five state organizations have been brought into the process.

Implementation of new technology is well underway. Approximately two million member documents – almost 80 filing cabinets – were converted into images in an interim document management system. A vendor was selected and the contract was signed in March, 2006.

VPAS will be a stable, state-of-the-industry, fully integrated pension administration solution, including a tightly integrated imaging and electronic workflow capability. Web-enabled features will provide our customers greater access to services. To avoid a "big bang" approach in which the entire solution is implemented at once, VPAS will be implemented in five major phases over three years.

Initiation: The initial phase, completed in August, 2006, established the foundation for

the project and for the office and contractor to work as a team. The project's scope was validated, a work plan was built, and processes to be used during the project were documented.

Infrastructure: This phase, completed in September, 2006 reviewed the Office's existing hardware, software, and networking infrastructure and identified, ordered, and installed the new infrastructure. VPAS has been able to use many of the State's enterprise solutions such as security, emergency, and data backup and recovery facilities resulting in a stronger solution at a significant savings to the project.

Imaging: Over two million images were moved from the interim imaging system into the new VPAS imaging solution. This phase was completed in December, 2006.

Membership: This phase involves the activities relating to a member prior to retirement, which includes employer reporting, annual statements, estimates and retirement planning, and purchases of service credit. The anticipated implementation is January, 2008.

Benefit Payment: This phase deals with the activities of members once retired and includes pension payments, tax withholdings, and insurance deductions. It also includes a component for Web self-service which would allow members to access personal retirement information via secure Web pages. The anticipated implementation for this phase is early 2009.

To date, the project has met all milestones on time, at or below budget. The Treasurer will work with key business partners to bring this system online over the next two years. This will help the Treasurer to deliver pensions, related benefits and services to retirement customers while meeting a growing demand for faster simpler access to complete and accurate information.

# Unemployment Insurance Quarterly Wage & Tax Filing

*Reducing complexity for employers*

## **The Problem:**

The Department of Labor's unemployment insurance program has been in existence for over 70 years, and the way some tasks were performed – by paper entry – hadn't changed during that time.

## **The Challenge:**

To find a way to reduce some time-intensive and costly tasks through the use of technology.

## **The Solution:**

The department implemented Internet-based tools that allow customers to calculate taxes and input information while drastically reducing the costs of redundancy for both the department and employers.

One task required of employers helps illustrate the scope of the improvements made through technology. Employers who have to provide unemployment coverage to their employees must file quarterly reports with the Department of Labor. Employers have to report both individual wages paid and aggregate amounts paid, then calculate a tax that is due and remitted with each quarterly report. This system will also be used for the Employer's Health Care Contribution reporting that will begin in July of 2007.

Quarterly reports are required of 21,000 employers in Vermont and the responsibility to collect and process these reports four times



a year is extremely labor intensive.

The Department initiated the development of an online filing system that will automate most of the

process. This will make it much easier for employers to meet their obligations and enable the department to process the returns more quickly.

This Internet based system will enable employers to access a secure web application that, once entered by employers, keeps track of the names and other demographic data required on individual quarterly reports. Employers will be able to input gross wages paid during the previous calendar quarter and the system will calculate the amount of tax and health care assessment contributions due. Employers may also submit one payment for all amounts due through a secure automated transaction.

Simply not having to input the same demographic data and calculating the tax due each quarter will save employers a substantial amount of time each year. Because the data will be transferred electronically, the Department will save on the cost of processing payments and avoid having to reenter information that used to be provided on paper.

Vermont's Internet Wage and Tax System (VITWS) will be fully deployed for first quarter of 2007 reports, which are due April 1, 2007.

---

# Vermont's Health Care Reform Plan

*Increase access to affordable health insurance for all Vermonters*

---

## **The Problem:**

On May 25, 2006, Vermont Governor James Douglas signed into law Acts 190 and 191 (Acts Relating to Health Care Affordability for Vermonters) that provide the foundation for Vermont's Health Care Reform Plan. Act 191 assigns responsibility to the Secretary of Administration for coordination of health care system reform across the enterprise. There are more than thirty-five separate initiatives contained in the legislation. As a part of the five-year implementation of these initiatives there will be several IT related activities.

## **The Challenge:**

Provide timely, effective, information technology solutions and guidance for a successful implementation of Act 191.

## **The Solution:**

The Catamount Health Premium Assistance Program and the Employer Sponsored Insurance (ESI) Premium Assistance Program will both require revising existing information technology systems to accommodate new program requirements. These are scheduled to be completed by October of 2007.

The Comprehensive Outreach and Enrollment Strategy will develop tools to assist with outreach and enrollment, including new web-based, consumer friendly, screening and application tools. This is scheduled to be completed by May of 2007.

The Vermont Information Technology Leaders (VITL), a public-private partnership, will develop the statewide, integrated infrastructure for the sharing of health information. The Medication History Pilot Project will be the first related project.

VITL will also develop the Chronic Care Management Information System to support the Blueprint for Health. The legislation also requires that VITL submit a preliminary Health

Information Technology Plan by the beginning of 2007 with the final plan due in July. The Medication History Project will be implemented at the first two sites by June 2007.

Ongoing efforts that will be driven by this project include continuing to expand VITL capacity to develop statewide infrastructure, assuring IT components of Blueprint, Office of Vermont Health Access (OVHA) Global Clinical Record, and other health care IT projects are incorporated into and comply with Statewide Health Information Technology Plan (VITL) & DII Initiatives, and Assuring IT components of Vermont Program for Quality in Health Care (VPQHC) quality assurance system are incorporated into and comply with Statewide Health IT Plan (VITL) and DII Initiatives

The Multi-payer Data Collection Project will provide Health care providers, hospitals, insurers and the state with a comprehensive health information system. Modeled after programs in Maine and New Hampshire, BISHCA will design the health insurance claims data collection program and begin program implementation.

Before development of an IT solution can begin rules must be established for the collection, management and reporting of health insurance claims data. Once these requirements are in place implementation of full data collection, processing, data base development and reporting capabilities can begin.

As a part of the Employers' Health Care Premium Contribution Project the DOL Information technology System will be modified to accommodate Employer Contribution reporting.

A Web site has been developed for health care reform implementation <http://hcr.vermont.gov/>.

---

# Enterprise Project Management Office

*Supporting collaborative, disciplined, and repeatable IT Project Management*

---

## **The Problem:**

Few state Information Technology (IT) projects have completely or satisfactorily met the business need they were intended to support. Industry best practice informs us this is primarily due to undisciplined or unpredictable project management processes. In an environment where limited resources are understandably focused by the tyranny of the urgent, it is difficult at best to ensure sound IT project management methodology is defined and followed. Symptoms of mediocre IT project management include incomplete business case and user requirement documentation, little or no risk and issue communication, decision makers act on poor or wrong information, the wrong projects get funded, the right projects go unfunded, etc.

## **The Challenge:**

To ensure project management is recognized as a professional discipline worthy of attention by business leaders and IT professionals throughout the state enterprise; arriving at a common understanding that structured project management rivals the importance of any business function, and providing the tools, training and collaboration opportunities to support this philosophy.

## **The Solution:**

Three years ago, we formed the Enterprise Project Management Office (EPMO) in DII to

assist the Chief Information Officer (CIO) and agencies and departments in developing IT project management expertise. Our goal was to build a structured environment and assume leadership responsibility in the development of essential project management skills, standards, and metrics. The EPMO office was initially staffed by one person. Today, the EPMO consists of two project managers, two business analysts, and a director/project manager. The current EPMO team has been together just a few months, and is aggressively setting in motion the building blocks to support IT project management best practices.

Our goals included selecting a standard IT project management methodology. We've done this. The methodology is trademarked as "Ten Step" and is exactly what the name implies, i.e. a ten-step approach to disciplined project management. The methodology is designed to be flexible and modular. We will introduce Ten Step to a broader audience through hands on training and the web starting in February 2007.

We will manage IT projects and processes that have strategic enterprise impact. We will also mentor and coach dispersed project managers on IT projects with both enterprise and/or agency/department specific impact.

We are deeply involved in the IT projects described on the following pages.

---

# Enterprise Network Security

*Mitigating risk through technology*

---

## **The Problem:**

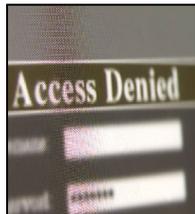
Increased use of online technology in state government also means increased risk. One way to defend against this risk and provide a secure online environment is through what is known as self-defending network security tools.

## **The Challenge:**

To proactively manage risk, monitor compliance and identify and mitigate evolving security threats. This project is intended to benefit all state government branches and partners as well as the citizens of the state.

## **The Solution:**

The Department of Information & Innovation (DII) will adopt a series of technology tools that enables the network to defend itself against security attacks.



One solution, the Intrusion Detection and Intrusion Prevention Systems are network-based programs that trigger intrusion alarms. The programs use signatures to identify attacks, perform traffic normalization, anomaly detection, protocol compliance and denial of service protection.

Additionally, network security policy and standards development tools will be the basis

for evaluating and selecting other security technologies such as routers, switches and firewalls. Policy and standards will also guide development of processes and procedures. The implementation of these components will successfully protect state government's assets and interests.

DII's Enterprise Network Services unit is beginning implementation of a new remote connectivity solution that will enable users to connect to the state's internal resources over the Internet. Virtual Private Network (VPN) is one component of the Department's long-term plan to improve access and increase security in this area.

Other security tools include content filtering software, which assists with performance management by regulating Internet content available to state employees and also provides protection from malicious content sent through the Internet or email.

Finally, an information technology contingency plan will include a coordinated strategy involving plans, procedures and technical measures that enable the recovery of IT systems, operations and data if a disruption should occur. Potential remedial steps can include restoring IT operations at an alternate location, recovering IT operations using alternate equipment and performing some or all of the affected business processes manually over the short-term.

---

# Shared Technology to Provide Geographic Information and Mapping

*We are stronger as ONE*

---

## **The Problem:**

Geographic Information Systems are currently installed in many Agencies that represent a considerable investment of resources. Each Agency has a specific data need but has commonality in the base data.

## **The Challenge:**

Identifying areas of common data and applications that could be shared to leverage the data of each Agency without duplicating efforts, while also displaying mapping information both internally and externally.

## **The Solution:**

Spearhead an effort to obtain a shared application that would provide a web based solution for internal and external customers to easily access, edit and report spatial data. A collaborative approach was designed by three Agencies and a pivotal piece of software was identified as a solution.

## **History:**

The Agency of Commerce and Community Development's (ACCD) Division of Historic Preservation (HP) began work on creating GIS locatable information to identify sites of historic importance. The division worked collaboratively with the Agency of Transportation to present this information internally through specialized software and externally through the Geographic Information System web service. Sharing the information with the Agency of Transportation was vital because the information assists engineers as they design and redesign state infrastructures. In addition, the Archeological

Officer, in conjunction with the University of Farmington, Maine, created an Archeological Sensitivity Map that provided information about sites that might have significant information that could be destroyed if the land was developed. As a tool to access and report this information on the web, a selection team from ACCD, Agency of Natural Resource (ANR), Agency of Transportation (AOT) and Vermont Center for Geographic Information (VCGI) convened to review the available options.

After reviewing various commercially available software applications, the team selected GeoCortex from Latitude Geographic as the enterprise solution for the presentation of GIS data on the web. The four Agencies shared in the investment, purchased the application, and took steps to make it possible for all State entities to use. The VCGI purchased the server platform for the application and the Department of Information and Innovation is hosting the server. There are a number of benefits that have been realized from this collaboration such as eliminating the purchase of individual licenses to access the GIS data, and simplifying the access to data for use in decision support systems.

One benefit to this collaboration has been the drive to create a Master Purchasing agreement with the State's main provider of GIS software tools which would allow GIS application licenses to be purchased at a reduced cost. In addition, there are benefits through this agreement that include reduced training and consulting costs for the State. All Agencies and Department can take advantage of this centrally administered contract.

---

## Consolidating Email Services

---

### **The Problem:**

For years, state agencies and departments have communicated electronically using different technical platforms supported by different architectures. As a result, comprehensive email communication, and electronic calendaring has been inefficient. Additionally, collaborative information sharing tools, such as Microsoft™ SharePoint (sharing e-documents) and instant messaging have not be effectively leveraged. The Department of Information and Innovation (DII) has committed to manage a secure environment that offers value-added services to users. These services include document-management applications, Microsoft SharePoint, Live Meeting, interactive messaging, and a statewide project management server.

### **The Challenge:**

To create an effective and efficient enterprise-wide email environment for use by all state employees.

### **The Solution:**

With this vision in mind, DII has started consolidating e-communication into one, common Microsoft Exchange Platform; a task that will conclude by the spring of 2007.

“Project SEED 2007,” or the Single Enterprise Exchange Deployment project, kicked off in June of 2006. DII partnered with Agencies and Departments across the state in an effort to make this consolidation process successful. While some departments are yet to be finished, all have started their consolidation projects. We are anticipating all departments and agencies, outside of the Agency of Human Services, will be consolidated on one exchange environment on schedule.

---

## Wide-Area Network “Backbone” Upgrade

---

### **The Problem:**

While the Department of Information and Innovation works to assess network security needs, it also must enhance the physical components of the wide area network to ensure continued secure communications across state departments.

### **The Challenge:**

The state computer network must provide a secure, coordinated approach that meets the growing communication needs of all agencies and departments

### **The Solution:**

While the Department of Information and Innovation works to assess network security needs, it also must enhance the physical components of the wide area network to ensure continued secure communications across state departments.

A wide area network allows departments to communicate from different buildings in different cities and towns. In contrast, a local area network connects computers within a building.

Understanding that an effective network must provide a secure, coordinated approach that meets the growing communication needs of all agencies and departments, the Department initiated an upgrade to the network “backbone” in 2006. This upgrade process is continuing in 2007 by assessing the needs and utilization levels on a circuit-by-circuit basis. There have been key

hardware upgrades that will allow DII - GovNet to implement more secure feature rich technologies that will allow the state as a whole to operate more efficiently.

The upgrade in 2006 was sorely needed. As some hardware and circuits were overtaxed and outdated. We are currently beginning new projects that will allow our infrastructure to be “self healing” as well as allow the state to be more proactive in areas such as security posture, network analysis, intrusion detection / prevention, and campus management. Many of these pieces will also rollup into an even stronger business continuity position.

The current projects are involving quality of service, reliability and security and will support voice, video, and data functions with diverse performance requirements. This will assure agencies of performance, even though new applications are being rolled out such as video over IP, voice over IP, collaboration, online training and surveillance security requiring video and web applications.

We will also continue to bolster our infrastructure from the hardware point of view with upgrades at our four core campus network infrastructures in Burlington, Waterbury, Montpelier and Barre as well as areas we identify needing increased performance or continuity.

The 2007 view of the five-year plan will be to build on the foundation that was started in 2006’s infrastructure upgrade to establish the “self defending network” as well as leveraging tools we have to provide agencies a better view of their networks.

---

## Policies and Standards

*Uniformity across state government*

---

A strategic plan and implementation of a plan's components are only as good as the policies and standards that guide them. Over the past year we have made considerable progress in this area and there is much more to be done. In an enterprise computing environment with multiple agencies deploying solutions to their business needs, it is essential that projects adhere to consistent policies, based on industry "best practices".

The State Technology Collaborative (STC) and other committees have worked with the Office of the CIO to establish uniform policies and standards in the following areas:

- Password Policy and Standard
- Malicious Software Protection Policy and Standard
- Web Page Common, Look and Feel Policy and Standard
- Data Protection Policy and Standard

Over the next year we plan to implement additional policies and standards in the following areas:

- Data Encryption Policy
- Data Classification Policy
- Firewall Policy
- Security Audit Policy
- Security Breach Response Policy

We are continuing to update older policies as well as institute new policies in areas of concern. The process involves the input of employees across state agencies to ensure that no area is overlooked. We are also in the process of consolidating all policies related to Information technology into one section on the CIO Web Site.

---

# UPCOMING PROJECTS

---



*The following section provides information about the most recent information technology initiatives. These projects all of which are based on the “Enterprise Approach” are typically in the planning or start-up phase of implementation, and are necessary for technology to contribute to the state’s success in delivering services.*

---

## Coordinating Timekeeping and Payroll

*Saving time and effort through technology*

---

### The Problem:

A need to replace both a manually intensive paper process and an outdated payroll front-end system while ensuring the business continuity of related interfaces statewide.

### The Challenge:



As with any successful software deployment, the challenge is to install a solution that meets business requirements with minimal impact to the user community and its processes. Implementation without first understanding all systems effected statewide can have a significant impact on the project downstream. The initial scope analysis has thus far identified such challenges as:

- Replacement of all functions performed by the current payroll front end system, including time reporting and expense reimbursements.
- Alternative means of time entry for state employees not currently utilizing computers in their jobs.
- Accommodation for departments using time clocks and resource scheduling tools.

- Synchronizing two accounting structures that should be aligned in the overall enterprise resource planning (ERP) system.
- The replacement of the State Transportation Accounting and Reporting System (STARS) with the PeopleSoft Project module. STARS manages accounting and billing of capital projects.

### The Solution:

To develop and implement a thoroughly engineered plan that utilizes the right blend of PeopleSoft modules to meet the states objectives The PeopleSoft Time and Labor module has been selected to replace the outdated payroll front-end system known as Paradox. The advantages of using this new software include, decrease in paper flow by eliminating or reducing paper timesheets, giving employees the ability to enter their own time, allowing configuration of rules, providing edits to reduce data entry errors, validating available leave accrual, and providing an additional level of miscellaneous reimbursement functionality.

To architect such a plan, several key employees from the Departments of Human Resources, Finance & Management, and the

Agency of Transportation have collaborated to select a vendor through the State's RFP process to assist the state in developing a detailed Needs Assessment.

The resulting Needs Assessment will provide a clear recommendation and strategic approach to identify the correct modules needed, the appropriate versions, the order of deployment, and the best approach to address each of the existing interfaces and challenges identified. Using the Needs

Assessment as a blueprint, the project team will then develop a final RFP to select a vendor to implement the plan as outlined.

In this approach, the combination of technology and strategic planning will come together to continue leveraging our investments in the State's ERP platform: Vermont's Integrated Solutions for Information and Organizational Needs (the VISION System).

---

## Improving State IT Infrastructure

---

### **The Problem:**

After having built up slowly, over time, a patchwork of equipment and spaghetti cabling existed at the Waterbury Complex, the hub for Agency of Human Services systems. The result was poor system performance and an inability to support new program initiatives.

### **The Challenge:**

To coordinate a massive upgrade of all underlying components of the complexes IT infrastructure to provide a solid and secure foundation in support of agency services.

### **The Solution:**

Through the process of selecting critical projects using the Strategic Enterprise Initiative process, agency executives identified infrastructure improvement as the Agency's top priority. With executive support, AHS coordinated its efforts with those of BGS and DII to complete an overhaul of key components of the infrastructure in Waterbury.

DII was able to structure and finance a project for replacement of decaying fiber optic cabling and additional connectivity to meet the needs of new security systems. As part of this effort, AHS worked with DII to install new fiber to local wiring closets.

At the same time AHS was working with BGS to create a campus computer room. There had been no central computer room on the Waterbury campus; departmental servers instead were located in staff offices throughout the campus. Using space centrally located and previously used only for storage, BGS and AHS designed and built a central computer room, giving Waterbury a secure, clean environment with proper air handling, power supply and generator backup for the servers that provide network access to AHS employees around the State.

Because of these efforts, AHS can now move forward with new applications like the consolidation of e-mail systems, implementation of health care systems and replacement of legacy systems.

---

## Vermont Department of Tax (VDT) Integrated Tax System (ITS) Project

---

**The Problem:**

The Vermont Department of Taxes is working to replace aging mainframe software applications with more modern, functionally-rich software.

**The Challenge:**

To move five discrete tax applications currently housed on the DII mainframe into an integrated tax system (ITS) with a relational database.

**The Solution:**

VDT has worked with a vendor to develop a strategy to implement an ITS. This system could be expanded in the future for enterprise wide use. This would allow VDT to eventually consolidate processing on the new application by migrating remaining processing from the

mainframe, Advantage Revenue, and CACS applications.

Currently the Department of Taxes is preparing to launch an RFP soliciting bids for a COTS (commercial off the shelf) solution that will meet their business and technical requirements.

Successful completion of this project will result in increased efficiency inputting and retrieving data and implementation of industry best-practice for business continuity capabilities. The ITS will give the VDT the opportunity to implement the Federal/State modernized e-file program for corporate and business income taxes and will alleviate some of the concerns resulting from the retirement of key mainframe developers.

---

# Vermont Justice Information Sharing System

*Sharing justice information throughout the justice system*

---

## **The Problem:**

Vermont lacks the ability to electronically share information between law enforcement, states attorneys, courts, corrections, defender general and other justice agencies such as the Department of Motor Vehicles.

## **The Challenges:**

To identify an analysis tool that will determine the information that needs to be exchanged. To develop a technological platform that will be scalable to accommodate the different functional requirements for justice related information. To create a mechanism for the monitoring, coordinating and approval of information technology projects within Vermont's criminal justice agencies.

## **The Solution:**

With the help of the Vermont Justice Information Sharing System's (VJISS) steering committee a strategic plan needs to be developed. Besides this plan there are two projects that need to be monitored and embraced as part of the bigger VJISS initiative. These two projects are:

- The exchange point, JIEM Analysis project which will develop the exchanges of information between law enforcement, states attorneys, courts and corrections.
- The law enforcement data sharing initiative (LEDSI) that will provide for the querying of information between the disparate law enforcement computer-aided and records management systems (CAD/RMS). This project is intended to create a technological platform for which other functional requirements and other exchanges of information can be achieved.

Other initiatives that need to be completed or monitored include, but are not limited to;

- The development of a comprehensive strategic plan that will allow for the implementation of other functional requirements throughout the criminal justice system. Specifically the determination of what information needs to be pushed, pulled, subscribed and published between agencies of the criminal justice system and justice agencies. These technological improvements will need to be weighed against Vermont's ability to sustain the implementation of these projects.
- Ensure that all projects meet the Global Justice XML Data Model (GJXDM).
- The new Court Case Management System (CMS) that will be tightly integrated with an electronic filing solution and imaging and document management system components of the Vermont Judiciary. The overall project goal for a new CMS is to create a user-friendly, flexible system that will help facilitate seamless data integration and data sharing; and incorporate newer technologies to streamline the judicial process and to reduce the paper-flow in the court community.
- The upgrade of the electronic Vermont Criminal History Record System. This system will comply with Global Justice XML standards and when completed will allow for the electronic exchange of information between the courts and the Vermont Criminal Information System.

Once VJISS is implemented the vision of providing accurate, timely and complete information to the right justice professional, at the right time for the right reasons will be realized. Through an integrated justice system, that shares real time information, the safety, security and quality of life in Vermont will be enhanced.

---

# SharePoint Server 2007

*Where permitting meets the future*

---

## **The Problem:**

The Agency of Natural Resources (ANR) wants to improve the efficiency of the Department of Environmental Conservation's (DEC) existing business processes through the use of technology. Changes in statutory requirements are resulting in significant increases in public interaction and data collection needs. Technology and business process goals include increased availability of information, improved customer service, and more efficient processing of business documents and payments.

## **The Challenge:**

Documenting core business requirements and processes, and selecting those most in need of technology enhancement. Combine these necessary steps with the time constraint resulting from statutory change, and complexity increases. Defining a project that leverages emerging technologies and can be delivered on time will test the capability and focus of all involved.

## **The Solution:**

The ANR/DEC project team decided to target their permitting work as the one core process most suitable to focus initial efforts. Consultations with vendors and the Department of Information and Innovation (DII) informed ANR's decision to implement functionality included in Microsoft™ (MS) Office SharePoint Server (MOSS) 2007. This suite of tools is integrated with the familiar MS Office suite and is designed to stabilize and enhance work flow around business documents. MOSS will be evaluated closely during this project in the context of building a technology tool kit to support a strategic enterprise initiative (SEI) effort to implement electronic document flow and records management state-wide.

MOSS is advertised to add consistency to how people interact with electronic content, processes, and business data. Electronic content is defined as digital documents, including emails, generated and used during the course of your work. Well managed electronic content will boost employee productivity and customer satisfaction by implementing electronic workflows. Optimum workflows are carried out in light of a robust records management system, a clear understanding of customers and their needs, and are targets for continuous process improvement.

---

## Real ID

---

The REAL ID Act of 2005 gives the Department of Homeland Security authority to require states to rapidly implement new regulations for State driver's license and identification document security standards. The Act improves the integrity of the driver's license by establishing minimum standards for state-issued driver's licenses and ID's.

The Department of Motor Vehicles will be required to implement the following new standards by May 2008:

- Mandatory photo licenses for everyone.
- Verification of all source documents used to prove one's identity, including birth certificates, social security cards or any immigration-related document used to prove legal presence in the United States.
- Redesign of the driver's license document itself.
- The capability to capture, store and electronically transfer the digital images of source documents.
- The ability to ensure the physical security of all locations where licenses and ID's are produced.



Implementation of these provisions will require a sizeable investment by the states, since the Act itself was passed without federal funding attached. Additionally, the verification procedures required will take not only money to develop the necessary systems, but will also affect the service provided to DMV's customers. In many cases individuals seeking a driver license or ID may not be able to complete that service on their initial trip to a Department of Motor Vehicle office.

The federal rules specifying all the details necessary to carry out the provisions of this Act have yet to be finalized. However, based on a preliminary review of the Act's general provisions, the Department has forecast a total cost in excess of \$2 million to implement the new rules.

The final rules that will govern Real ID have not as yet been published by the Department of Homeland Security (DHS). As a result the state, as yet, has no firm basis from which to begin work on a system to support the law. We are however, working on assumptions.

One assumption is that there will need to be interfaces with outside entities in order to carry out document verification. The systems that will need to be linked will be:

- The Social Security On-line verification system (SSOLV) which Vermont is already using.
- The Electronic Verification of Vital Event Records (EVVE/EVVER), which the state is not currently connected to and probably will not be for sometime since Vermont vital records do not currently exist in an electronic form.
- The Systematic Alien Verification for Entitlement (SAVE), the immigration system which shows evidence of lawful status in the US.
- Passport verification system
- Driver license/ID card document verification system using the digital image exchange application.

The state is currently working with all of these entities and DHS in an effort to make these connections. We believe that using this approach will provide for an interim operational capability for jurisdictions to meet the provisions of the Real ID Act by May 11, 2008.

---

# Enterprise Geographic Information

*A bold new map for statewide collaboration*

---

## **The Problem:**

Many agencies and departments require geographic data resources, yet they don't have the human or financial resources to acquire the resources on their own.

## **The Challenge:**

To find a cost-efficient way for the Vermont Center for Geographic Information to collaborate with other entities statewide to provide this information in a cost-effective enterprise approach.

## **The Solution:**

On the heels of its successful collaboration (outlined in "Successes") with the Agency of Commerce and Community Development and the Agency of Natural Resources, the Center will participate as a key provider in the design of an enterprise-wide solution.



While all participating agencies and departments will contribute aspects of their infrastructure and data resources to the enterprise, the Center is uniquely positioned to provide critical Geographic System Information-related resources and expertise. The Center's participation in the enterprise will enable other agencies to have continuous access to the state's large repository of geographic data resources.

The Vermont Center for Geographic Information will also provide Geographic System Information, system design expertise and extensive data management resources. The Center will maintain the standard for those agencies that want to participate in the enterprise. As an organization that is currently active in federal geographic data sharing partnerships with many geographic data and mapping-related professional organizations, the Center can provide extensive professional input to the development of the enterprise system.

---

# Enterprise Grants Management

*Standardizing processes across state government*

---

## **The Business Case:**

The State of Vermont (SOV) secures and administers hundreds of Federal and State grants. This money then flows through to local units of government, public school districts, private organizations, non-profit organizations, individuals, etc. The current process of administering grants is effective in disbursing designated funds to sub-grantees, however, the current process is burdensome and not efficient in terms of time and effort required at all levels.

The process for applying for, approving, and managing grants is handled differently for each agency or department within the SOV. In practice an agency or department sponsors one or more Federal or State grants using the same general procedures. However, each grant is managed using a unique system designed for that grant alone. As a result specific procedures differ from program to program. These various procedures create different terminology, applications, and means of maintaining historical data from grant to grant. Contributing to this variable approach is the fact that grants are sponsored by different federal agencies, each with their own application procedures, reporting requirements and timelines.

The impact of this inconsistency is felt at the sub-grantee level. Sub-grant applicants are most often required to prepare hard copy applications and deliver them through the mail. Because there is no central data store, required information is resubmitted with each application. This makes applying for grants a time consuming process requiring duplication of effort.

The current process of applying for grants and the review and approval process is not efficient in terms of time and material. This directly affects the numerous sub-grantees. This inefficiency also affects State staff members who process all applications and ensure they are completed properly. These

processes create an unacceptable duplication of effort as well as cost of staff time required to apply for, administer and issue grants.

## **The Challenge:**

To achieve the goal of aligning grant management processes across the State, a single system, supported by state of the art technology, must be procured or developed, deployed, and used by agencies and departments Statewide. This system must be flexible enough to accommodate the needs of a wide range of grantors across State government and serve as a central repository of grant-related information for the entire enterprise. This system must include a user friendly website allowing grantees easy access to SOV grant opportunities.

## **The Solution:**

The first step requires improvement and standardization of business processes by state government entities that seek and manage grants. Subsequently, a competitively bid technical solution, i.e. a grants management system (GMS) will be put in place that meets goals established by government stakeholders.

In the spring of 2006, a GMS Steering Committee was formed. This committee is made up of representatives from departments and agencies across the State including the Agency of Human Resources, the Agency of Transportation, the Agency of Natural Resources, the Department of Education, the Department of Finance and Management, the Department of Labor, and the Department of Information and Innovation. This committee was charged with the responsibility of conducting a needs assessment and, based on the information gathered from that process, create an RFP that solicits vendor bids to create an integrated, web-enabled, flexible and fully functional grants management system for the State of Vermont. To assist the Steering Committee with this

RFP process, DII assigned an Enterprise Project Manager to this project. This phase of the project has been completed.

The RFP outlined a final product that would include a public facing portal, through which organizations and individuals search for grant opportunities, apply for grants and report on progress and fund utilization once awarded a grant. It is our intention the GMS solution must be user-friendly and easy to operate. This will help program staff quickly implement new grant programs and modify existing programs.

In late November 2006, 7 bids were received from vendors across the United States and Canada. Two sub-committees were formed to analyze the vendor proposals in the areas of business requirements and technical requirements. At this time, the vendor selection is still in process. The committee will

likely recommend one or two vendors to the Secretary of Administration by Spring 2007.

In addition to the RFP process, the DII Enterprise Business Analyst prepared a Cost-Benefit and Return on Investment (CBA/ROI) analysis for the proposed system. This analysis painted a positive picture, but the model assumes successful implementation. Therefore, the biggest challenge is ahead. Successful implementation will not be easy, and we must aggressively manage a complex, multi-department, collaborative effort to insure benefits outweigh costs.

Benefits of successful implementation include taxpayer savings, constituency satisfaction, freeing staff from manual administrative chores to do more meaningful work, and allowing central oversight of grant-making functions.

---

## Voice over IP (VoIP)

*A new way to communicate*

---



The concept of Voice over Internet Protocol may be one of the most significant opportunities for the state of Vermont.

In its simplest form VOIP will allow the state to transmit calls over our data network connection and avoid costly per minute charges incurred when using traditional phone lines. VOIP offers the promise of reducing traditional phone costs, such as toll and monthly line charges. VOIP presents the option of video conferencing between state agencies and is a cost effective way to deploy employees to other locations in emergency situations. VOIP however is not a panacea and the state must proceed cautiously to ensure that we maintain current service levels. In FY 2007 we are deploying several VOIP projects and intend to ramp these up in FY2008. The first of these is the new Emergency 911 system that will be online soon, replacing the older system with a state of the art system to support our citizens and first responders. Second is the new call center system that is being deployed with the Departments of Motor Vehicles, Taxes and Labor. This system will use VOIP to support

voice and data needs for their call takers. Last is the effort to determine if the Department of Corrections can shift their video conferencing system over to a VOIP solution and reduce their dedicated circuit charges. All of these projects are building the expertise needed within state government to support this technology in future years.

The most significant VOIP opportunity will present itself in FY2008 as the state issues an RFP for the Centrex telephone service. Centrex is the service that provides telephone lines to all state agencies and offices. This RFP will include a VOIP component and will open the door for the state to deploy this technology at a greater level. The steps taken in FY2007 to perform upgrades on data network equipment and to increase speed of data connections at numerous locations has laid the foundation for the state to deploy VOIP.

We are confident that we can begin the transition to VOIP and that we will experience a new level of innovation as well as cost savings.

# CHARTING A NEW COURSE

---

Time stands still for no person, an adage that is particularly true when it comes to information technology. As Vermont, like many states, faces numerous challenges over the next few years, it is our goal to make the promise of technology a reality.



When deployed properly using a common enterprise-wide approach, technology can foster greater productivity, efficiency and eventual cost-savings. Technology solutions can facilitate greater security, privacy and convenience for the state's most important stakeholders – its citizens. However it is also true that the most advanced technology in the world is only as good as the human effort that is put into it. Therefore workforce development, training, recruitment, and recognition will play a vital role in ensuring the State achieves its technology goals through its highly skilled IT workforce.

With this combination of a top-notch information technology workforce and appropriate technology solutions, we will provide Vermonters with world-class service. Nothing less will do.

---

*Statistical Information*

---



## Organizational IT Expenditures Fiscal Year 2004 - 2005

Data for the following was derived from the report, "State of Vermont Technology Expenses, Business Unit Account Detail by Year for Fiscal years 2002-2005 and 2006 through October 2006" presented by the Department of Finance and Management.

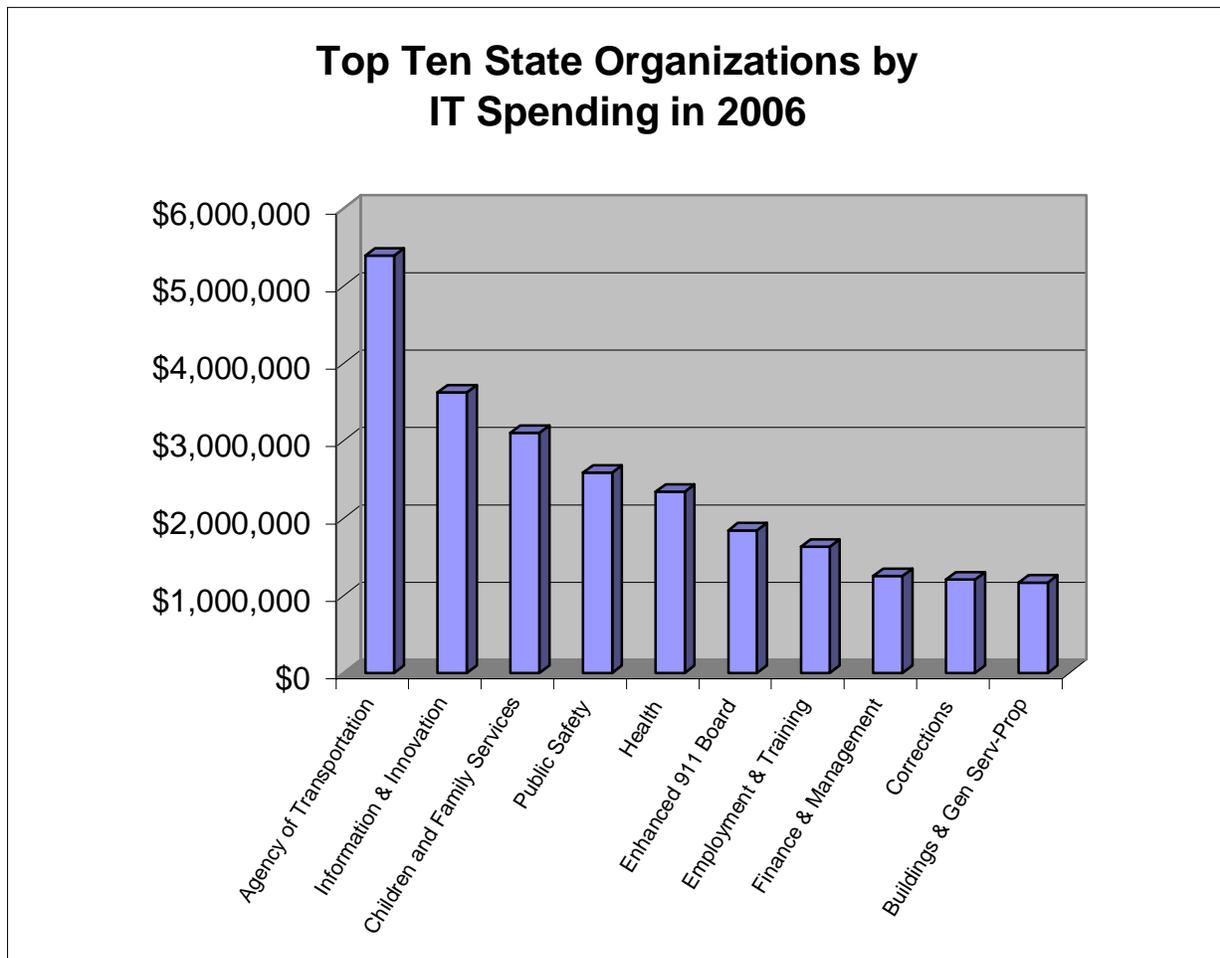
Unit	Agency / Department	FY 2005	FY 2006
1100	Agency of Administration Sec Office	\$7,446	\$9,468
1105	Information & Innovation	\$3,876,046	\$3,624,423
1110	Finance & Management	\$406,456	\$1,250,201
1115	F & M - Financial Management Sys	\$935,903	\$591,243
1120	Personnel-Governmental	\$330,030	\$64,206
1125	Personnel - Proprietary	\$312,158	\$275,493
1130	Libraries	\$587,809	\$302,273
1140	Tax	\$804,726	\$1,128,264
1150	Buildings & Gen Serv-Gov'tal	\$409,632	\$471,804
1160	Buildings & Gen Serv-Prop	\$1,718,098	\$1,167,397
1180	Buildings & Gen Serv-Capital	\$201,874	\$75,116
1200	Executive Office	\$41,873	\$41,621
1210	Legislative Council	\$360,098	\$444,639
1220	Joint Fiscal Office	\$5,766	\$48,187
1230	Sergeant of Arms	\$7,541	\$10,204
1240	Lieutenant Governor	\$2,608	\$4,745
1250	Auditor of Accounts - Gov'tal	\$29,272	\$24,545
1255	Auditor of Accounts-Prop		\$23,919
1260	State Treasurer - Gov'tal	\$130,007	\$135,017
1265	State Treasurer _Fiduciary	\$71,369	\$80,985
1270	State Labor Relations Board	\$7,133	\$5,211
1280	VOSHA Review Board	\$1,160	\$725
2100	Office of the Attorney General	\$160,525	\$223,287
2110	Office of the Defender General	\$111,749	\$223,907
2120	Judiciary	\$938,789	\$688,338
2130	State's Attorneys and Sheriffs	\$271,136	\$353,941
2140	Public Safety	\$2,716,821	\$2,588,061
2150	Military Department	\$98,396	\$108,035
2160	Center for Crime Victim's Serv	\$26,465	\$51,909
2170	Criminal Justice Trng Council	\$88,559	\$43,131
2180	Fire Service Training Council	\$67,060	
2200	Agriculture, Food & Markets	\$197,766	\$332,382
2210	Banking Ins Sec Hlth Care Adm	\$300,525	\$251,460
2220	Labor & Industry	\$231,981	\$113,368
2230	Secretary of State	\$125,585	\$449,831
2240	Public Service Department	\$76,944	\$390,558
2250	Public Service Board	\$50,708	\$47,452
2260	Enhanced 911 Board	\$1,270,408	\$1,839,379
2270	Vermont Racing Commission	\$2,895	\$668
2280	Human Rights Commission	\$6,649	\$1,515
2300	Liquor Control	\$150,282	\$187,298
2310	Vermont Lottery Commission	\$64,983	\$76,660

Unit	Agency / Department	FY 2005	FY 2006
3100	Human Services Central Office		
3110	Child Support Services Office		
3120	Department of Health		
3130	Social & Rehabilitation Serv		
3140	Prev Assist Trans Hlth Acc		
3150	Dev & Mental Hlth Services		
3160	Aging and Disabilities		
3170	St Economic Opportunity Office		
3180	Corrections		
3275	VT Correctional Industries		
3300	Vermont Veterans' Home	\$208,205	\$135,431
3310	Governor's Commission on Women	\$8,597	\$6,619
3400	Human Services Central Office	\$187,209	\$378,677
3410	Office of Health Access	\$486,520	\$481,891
3420	Health	\$2,281,736	\$2,340,894
3440	Children and Family Services	\$3,430,750	\$3,101,824
3460	Aging and Independent Living	\$611,981	\$742,262
3480	Corrections	\$1,270,953	\$1,206,047
3675	VT Offender Work Program	\$59,585	\$69,457
4100	Employment & Training	\$1,340,751	\$1,626,712
5100	Education	\$851,979	\$664,779
6100	Natural Res Central Office	\$441,888	\$425,216
6120	Fish & Wildlife	\$419,562	\$295,118
6130	Forest, Parks & Recreation	\$376,190	\$328,121
6140	Environmental Conservation	\$531,785	\$695,175
6210	Environmental Board	\$29,732	
6215	Natural Resources Board		\$56,963
6220	Water Resource Board	\$2,778	
7100	Commerce & Community Dev Admin	\$103,610	\$96,143
7110	Housing & Comm Affairs	\$103,132	\$69,533
7120	Economic Development	\$172,120	\$172,956
7130	Tourism & Marketing	\$160,307	\$70,885
7150	Vermont Life	\$48,848	\$38,638
8100	Agency of Transportation	\$5,408,509	\$5,393,674
8110	AOT Proprietary Funds	\$422,389	\$365,302
	Grand Total	\$36,164,345	\$36,513,185

Gartner offers the following guidelines when interpreting their data. “Typically, state governments spend between 6 percent and 7 percent of their total operating budgets — or \$7,000 to \$8,000 per employee — on IT. The percentage of IT employees in such entities is usually 7 percent to 8 percent of the total employee population.”

## Organizational IT Expenditures

Data for the following chart was derived from the report, "State of Vermont Technology Expenses, Business Unit Account Detail by Year for Fiscal years 2002-2005 and 2006 through October 2006" presented by the Department of Finance and Management.



## ***Acknowledgement***

The content of this information technology strategic plan is a credit to all of the dedicated and talented individuals who are focused on bringing e-government services to our fellow Vermonters. We would like to acknowledge the vision and leadership provided by the Governor through his Strategic Enterprise Initiative. We thank our executive leadership for joining us on this journey to identify technology opportunities that will benefit our citizens and help the state achieve its business objectives. We acknowledge our legislators who support and understand the need for building a strong technology base. Finally, we thank and acknowledge the many dedicated employees throughout state government who will work together to make our technology vision a reality.

## **Questions, Comments or Additional Copies**

Should you have any questions or comments regarding this plan, or desire additional copies, or you would like a copy of the Planned Information Technology Project Detail Report (PlanIT Report).

Please contact:

Rita Rounds  
Department of Information & Innovation  
Telephone: 802-828-4141  
E-mail: [rita.rounds@state.vt.us](mailto:rita.rounds@state.vt.us)

These reports may be found at the website listed below:  
Website: [http://cio.vermont.gov/planning\\_and\\_analysis](http://cio.vermont.gov/planning_and_analysis)