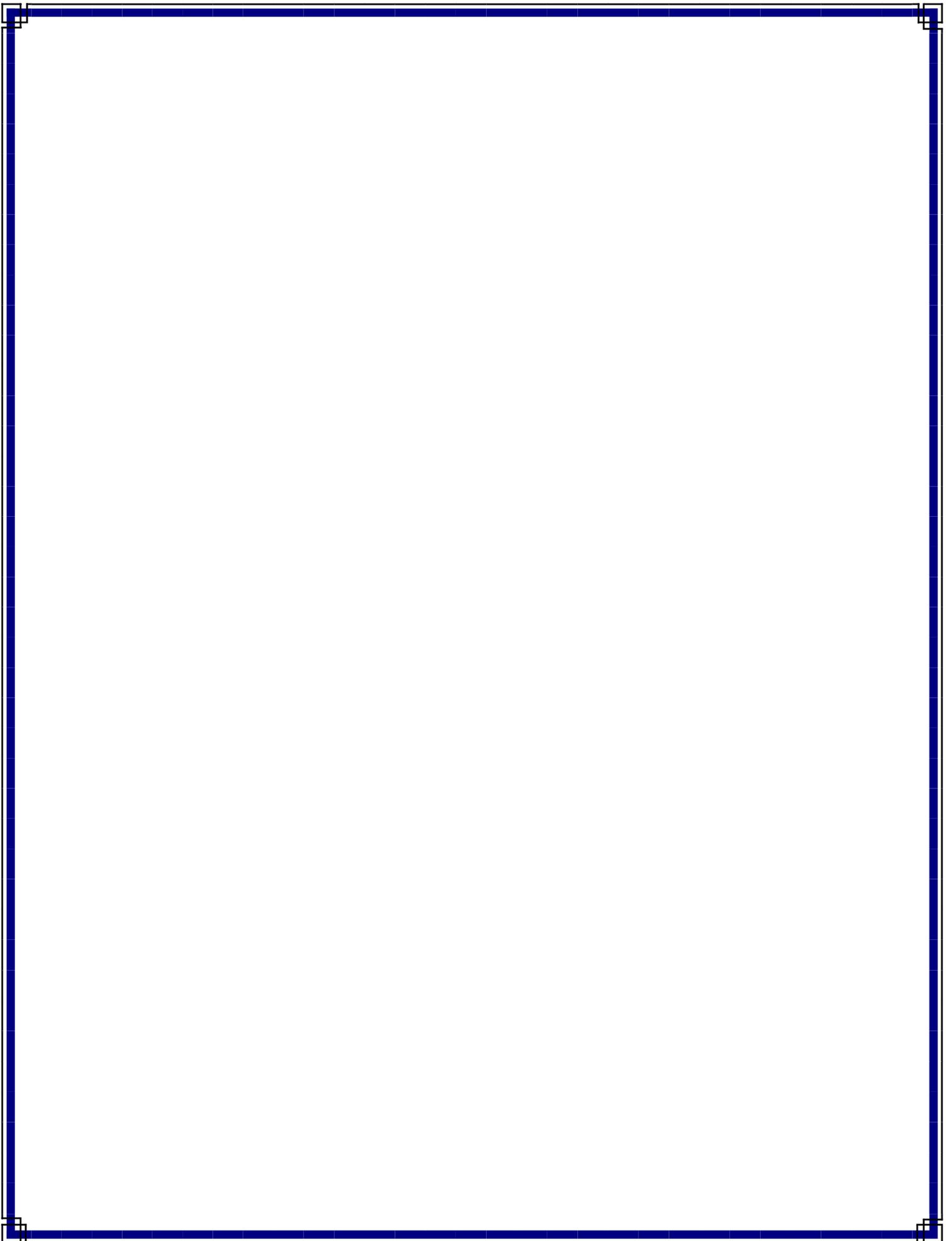


*2011 Annual Report*  
*on*  
*Information Technology*



Office Of Information Technology

**in**  
**Maine State Government**



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## FOREWARD

This report fulfills the statutory reporting requirements of the Chief Information Officer (CIO) set forth in the Maine Revised Statutes, Title 5, Chapter 163 §1973 and §1974. See: [www.mainelegislature.org/legis/statutes/5/title5ch163sec0.html](http://www.mainelegislature.org/legis/statutes/5/title5ch163sec0.html).

On October 11, 2011, Governor Paul LePage gave opening remarks at the 9th Annual Maine Digital Government Summit. In his remarks, the Governor commented that digital technology can help us find ways to reduce spending and to become more efficient, effective, and transparent in government operations. The Governor specifically mentioned how the economy will benefit from more communications technology and broadband access throughout the State. To help stimulate economic growth, the Governor also challenged the information technology staff to discover ways to make the State's website and systems more transparent for job creators. In summary, the Governor emphasized his goals for State government to be efficient, reduce costs, and provide better access to information.

Information technology (IT) is an essential component of State government and the services we deliver to Maine citizens and businesses. Technology is embedded in virtually every aspect of State government, necessary to transact business, support agency programs and missions, and provide on-line services through the State's web portal, [www.maine.gov](http://www.maine.gov). Technology, when combined with streamlined business processes, can truly transform State Government, driving down costs by reducing labor-intensive tasks, save hard-earned tax dollars, while improving services to citizens.

Many State agencies have experienced a positive return from investing in technology. To highlight just one example, Maine Revenue Services (MRS) has invested in technology to transform business processes, increase internal efficiency, save money, and improve services to citizens through on-line tax filing. MRS is also bringing in millions of dollars of additional revenue that are due to the State through use of computer data matching and automated auditing tools. The key to MRS' success was aligning its strategic IT plan with its strategic business plan. Of MRS' ten strategic business goals, eight of them are enabled or significantly supported by technology solutions. Four specific examples of how MRS has achieved a positive return-on-investment through wise use of IT are summarized below. Each of these technology investments has a short pay-back period, and the increase in funds will continue for many years after the technology is paid for:

- **“Discover Tax” Data Warehouse and Computer Matching:** Based on successful experience in other states, Maine expects this technology to allow collection of millions of dollars of additional tax revenue, by discovering those who are not paying taxes.
- **Auditor Tools and Technology:** Assisted by technology such as automated worksheets and electronic “porting” of data from corporations, MRS auditors are each yielding about \$1/2 million a year in additional corporate taxes. Through a technology-enhanced modernized enforcement effort, MRS auditors brought in about \$130 million in corporate tax revenue.
- **Check Deposits through Image Cash Letters – enabled by Tax and Revenue Imaging and Processing System (TRIPS):** By processing checks electronically, the State gets credit for the deposits within 24 hours, versus 4-6 days. Currently, MRS receives between \$900 million and \$1.2 billion of credits per year in check form. By

receiving electronically, the State gains 3-5 days of daily interest (for \$900 million - \$1.2 billion). The new system will cost \$2-3 million, and pay for itself within 12-18 months.

- **Internet Allows the Public to Get “On-line” instead of “In-line”:** Over the past dozen years, MRS has used the Internet to significantly reduce costs, and streamline tax filings and revenue collections, which is a benefit both for MRS and the public. The majority of taxpayers find it easier and better to file and pay electronically. About 60% of 1040 tax returns were filed electronically last year. Reducing the MRS staff-labor cost due to the shift toward electronic return and payment processing has saved over \$400,000 a year.

Many other State agencies are investing in IT in many ways to transform business processes, increase internal efficiency, improve services to citizens, and reduce expenses. As the new Chief Information Officer (CIO) for the State of Maine, I am committed to work as a full business partner with the agencies, to support current agency requirements for technology, as well as to work with agency leaders to use technology as enabler of process improvement and transformation of government. Technology does not stand alone as an island, but is part of a “triangle” of People-Process-Technology. We in the Office of Information Technology (OIT) are committed to improving our communications and collaboration with agency leaders and staff, and being more responsive to agency business-technology needs. We will also work collaboratively with agency managers to assess security risks to critical systems and data, to ensure continuity of government for all programs and services.

While the demand for technology from State agencies continues to grow, OIT staff is 15% fewer than it was at the time of the OIT consolidation in 2005 (422 filled positions currently, compared with 495 in 2005).

In the coming year, my five specific areas of focus are:

- Communicating more effectively with State leaders across State government.
- Strategic discussions with agencies on how best to meet their key business goals through automated workflow, mobile technology, and selective use of “cloud” services.
- Project management discipline to ensure “IT projects” are delivered on-time and within budget – and are viewed by agency stakeholders as technology-enabled “business projects” that meet critical agency business goals.
- Efficiency and cost reduction, including “right-sourcing” of systems support (use of both State resources and selective outsourcing). This includes potentially tapping into what systems are available through other states rather than re-inventing them.
- Next generation workforce – to ensure we have the technical skills needed for the long-term, considering fast-changing technology and the changing nature of the workforce.

I am pleased to present the following OIT Annual Report that documents in more detail these and other key areas. It is an exciting time to be working in the information technology field, and I am honored to be serving in Maine State Government.

Jim Smith  
Chief Information Officer

## RESPONSIBILITIES OF THE CHIEF INFORMATION OFFICER

The Chief Information Officer (CIO) directs, coordinates, and oversees information technology (IT) policymaking, planning, architecture and standardization throughout State government. The Chief Information Officer (CIO), as head of OIT, provides the central leadership and vision in the use of information and telecommunications technology on a statewide basis; sets policies and standards for the implementation and use of information and telecommunications technologies; develops and supports IT-related legislation; identifies and implements information technology best business and project management practices; and facilitates research and development activities to identify and establish effective information technology service delivery. The CIO is also statutorily directed to sit as a board member on the InforME Board, the Maine Library of Geographic Information Board, and the ConnectME Authority Board. See Title 5 section 1973 at: [www.mainelegislature.org/legis/statutes/5/title5sec1973.html](http://www.mainelegislature.org/legis/statutes/5/title5sec1973.html).

## OVERVIEW OF THE OFFICE OF INFORMATION TECHNOLOGY

In January 2005, The Office of Information Technology (OIT), as an office within the Department of Administrative and Financial Services (DAFS), was created by Executive Order, consolidating functions, staff, and equipment from all Executive Branch Agencies and the Bureau of Information Services (BIS). The consolidation was done primarily to promote State-wide information technology (IT) solutions and use of information efficiently across government. Cost containment and savings were anticipated over time. Since the consolidation, OIT has been delivering the full range of technology services to the Executive Branch, and selected services (such as e-mail and network support) to non-Executive Branch agencies as well as the Constitutional Offices (Attorney General and Secretary of State).

Prior to the IT consolidation of 2005, agencies were autonomous in their management of IT. Separate IT support teams existed in the larger State agencies. In the 2005 merger, the teams were consolidated within OIT under nine Agency IT Directors, whose responsibility was to oversee IT services for their assigned agencies, and provide application system development and management to those agencies. Prior to the 2005 OIT consolidation, there was 29 senior management staff; after the consolidation with the creation of OIT, there were 22 senior management staff. With the streamlining reorganization in 2009, the number of senior managers in OIT was further reduced to 13. The application system staffs previously under eight AITDs were consolidated under a new Associate CIO for Applications With only four directors. With this organizational alignment came a strengthened commitment to promote cost-saving enterprise-wide application systems, supporting multiple agencies and lines of business.

**Staffing and Organization:** The Office of Information Technology (OIT) is currently headed by the Chief Information Officer (CIO), James R. Smith. The Chief Technology Officer (CTO), Greg McNeal, is responsible for networks, voice services, radio operations, data centers, servers, desktop/ laptop computers, and IT customer support. The Associate CTO for Applications, Jim Lopatosky, oversees application systems development and management, systems integration and promoting shared use of enterprise systems.

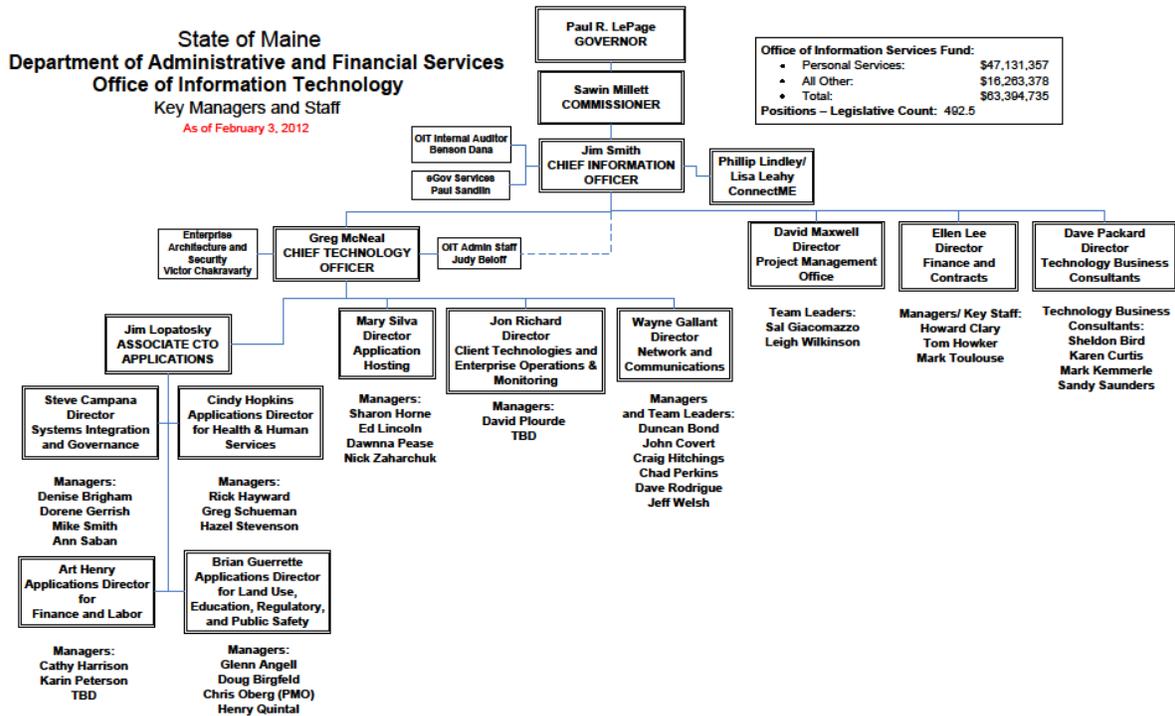
OIT has a Legislature-approved staff ceiling of 492.5. As of February 2012, 422 positions (85%) are filled. At the time of the OIT consolidation in 2005, OIT had 495 filled positions, so OIT's

number of filled positions is 73 less (15% leaner) than at the time of the OIT consolidation seven years ago. For OIT's organizational structure, see [www.maine.gov/oit/about/org\\_structure/index.html](http://www.maine.gov/oit/about/org_structure/index.html).

**Key Contacts:**

- OIT Help Desk (answered 24x7x365): 624-7700, [OIT.Customer-Support@maine.gov](mailto:OIT.Customer-Support@maine.gov)
- Chief Information Officer (CIO): James R. Smith, 624-7568, [Jim.Smith@maine.gov](mailto:Jim.Smith@maine.gov)
- CIO's Administrative Assistant: Judy Beloff, 624-7568 (cell 215-2303), [Judy.A.Beloff@maine.gov](mailto:Judy.A.Beloff@maine.gov)
- Chief Technology Officer (CTO): Greg McNeal, 624-9471 (cell 215-7849), [Greg.McNeal@maine.gov](mailto:Greg.McNeal@maine.gov)
- Associate CTO for Applications: Jim Lopatosky, 624-7573 (cell 441-6731), [Jim.Lopatosky@maine.gov](mailto:Jim.Lopatosky@maine.gov)

Below is the OIT organization chart showing the key managers and staff as of February 2012.

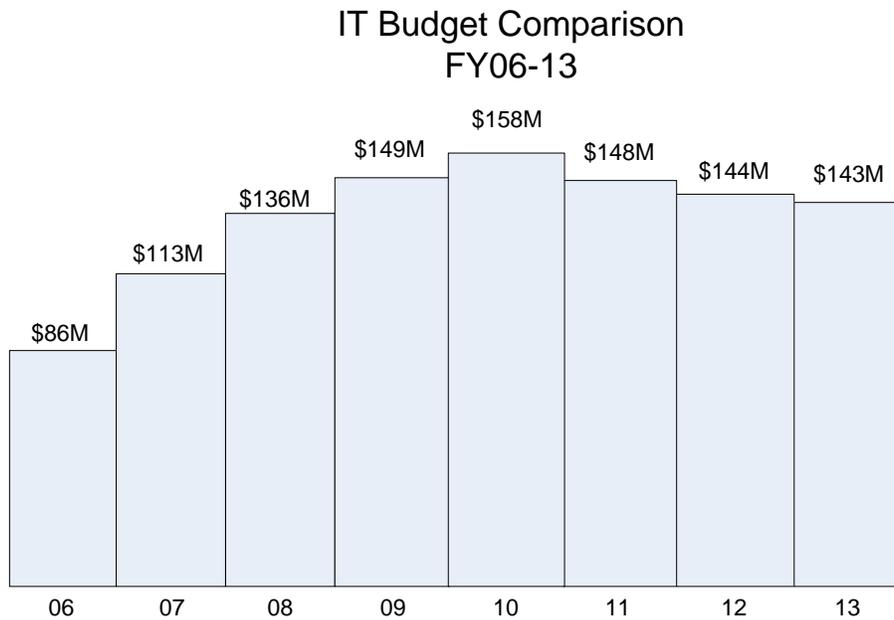


**OIT Architecture:** OIT operates under a defined technical architecture to best leverage its previous investments, as well as to get maximum value from its current and future investments. The architecture is continuously evaluated and renewed, and it provides steady guidance to OIT internal staff, State agencies, and our contractor service providers. We are progressively standardizing our infrastructure and hosting environment as much as practical, in line with strategic architecture principles and latest technology targets. See: [www.maine.gov/oit/architecture](http://www.maine.gov/oit/architecture).

**OIT Policies:** OIT operates under a set of policies that define and support the mission of the organization and provide guidance to customers, vendors, and internal staff. See: [www.maine.gov/oit/policies/](http://www.maine.gov/oit/policies/).

## BUDGET

The overall State IT budget, supporting all Executive Branch agencies, is \$144 million for fiscal year 2012, and \$143 million for fiscal year 2013. The chart below shows the State IT budget since fiscal year 2006 through 2013. The IT budget represents 2% of the total State budget.



**Bureau of Budget's explanation of year-to-year comparisons:** In 2006, IT personnel were employees of the individual departments and as such would not have been recognized in the State's budget system as IT expenditures. Beginning in FY07, IT personnel were consolidated into OIT pursuant to Public Law 2005 Chapter 12 Part I. Agency IT budgets were increased to reflect amounts previously budgeted as personnel services prior to consolidation, allowing agencies to pay OIT for technology services. Beginning in 2009, the budget reflects the full impact of consolidation including the consolidation of copy center services into OIT. Though technology rates were lowered in 2010-2011 as a result of shutdown days, etc., amounts previously budgeted under category 5500 equipment were moved under 5300 to allow technology equipment to be segregated from all other non-capital equipment. Additionally, contracts with IT vendors were moved from Professional Services not by State to Technology. With the implementation of detailed IT budgets within the Budget and Financial Management System (BFMS), the State will continue to improve its understanding of where IT dollars are being invested.

A joint effort between OIT and the Bureau of Budget now provides the Administration much more detail on where IT dollars are being budgeted in the FY12-13 biennium. The key components of IT costs are clearly visible in the State's Budget and Financial Management System (BFMS). The Bureau of Budget is able to see budget detail for end-user services (desktop support, telephones, e-mail, etc.) and for application systems, broken down by agency

as well as in total across the Executive Branch. Agency managers now have better information to make decisions on IT investments/ initiatives.

While the budget planning information is more transparent through BFMS, there are still significant challenges with the charge-back billing process, as described in the section below on Areas Needing Improvement.

**Lower rates:** In terms of major accomplishments, the efficiencies of State-wide consolidation have allowed IT rates to generally be reduced over the past seven years, as shown by key rates below. For example, the rate for e-mail now is 49% lower and the rate for desktop support is 24% lower than in 2005. For all current OIT rates, see: [www.maine.gov/oit/services/rates.shtml](http://www.maine.gov/oit/services/rates.shtml). For a description of all services offered by OIT, see: [www.maine.gov/oit/services/index.shtml](http://www.maine.gov/oit/services/index.shtml).

**Monthly Rates for Key IT Services**

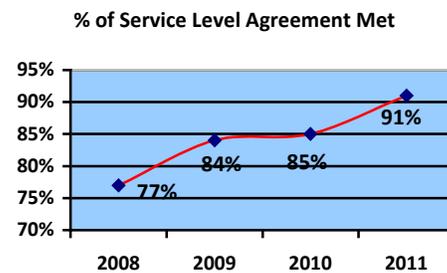
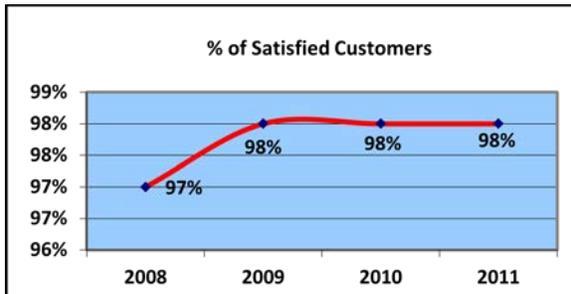
<i>Service</i>	<u>E-mail</u>	<u>File Services</u>	<u>Phone Line</u>	<u>Toll per Minute</u>	<u>WAN</u>	<u>Desktop Support</u>
<i>Fiscal Year</i>						
FY05	\$8.50	\$30.00	\$30.00	\$0.05	\$34.75	\$53.00
<b>OIT Consolidation began in FY06</b>						
FY06-07	\$6.50	\$25.00	\$31.00	\$0.04	\$34.75	\$53.00
FY08-09	\$6.00	\$19.30	\$29.00	\$0.04	\$33.50	\$42.00
FY10-11	\$6.29	\$18.37	\$28.02	\$0.04	\$34.32	\$42.46
Revised						
FY 10-11	\$6.08	\$17.94	\$27.53	\$0.03	\$34.14	\$39.51
FY 12-13	\$4.31	\$11.89	\$26.89	\$0.03	\$34.26	\$40.12
<b>Decrease since 2005</b>	<b>-49.30%</b>	<b>-60.40%</b>	<b>-10.40%</b>	<b>-40.00%</b>	<b>-1.40%</b>	<b>-24.30%</b>

**Increasing Demand for IT Services with Decreasing Resources:** Since the consolidation of technology resources in 2005, OIT has continued to reduce operating costs while striving to increase the level of service provided to agencies. The total State-wide IT expenditures remain relatively “flat” because agency consumption of services generally grows faster than rate reductions. State government in Maine has experienced growth in network demand, storage consumption, and Internet-based information exchange with government partners (federal, state, and local). This increased demand places a heavy burden on our infrastructure, especially for network bandwidth. As shown in the chart above, we have reduced key rates each year since 2005. Our State agency partners recognize the need to invest in technology in order to meet the demands being placed on them with a smaller workforce, expanding workloads, and limited funding.

**CUSTOMER SATISFACTION**

Customer surveys average 98% as satisfied or highly satisfied. The few dissatisfied comments are reviewed daily by OIT management for follow-up with the customer, and to promote

continuous improvement. For the OIT Help Desk and Field Technicians, customer satisfaction is tracked as an individual performance metric as part of their annual performance review. A key accomplishment since 2008 has been the marked improvement in meeting service level agreements (SLAs). Much of this improvement is due to business process improvements in timely delivery of desktop computers and support, use of standard operating procedures, and measuring performance against customer expectations. For the OIT Performance Metrics website, see: [www.maine.gov/oit/services/Measures/Summary\\_of\\_Measures.html](http://www.maine.gov/oit/services/Measures/Summary_of_Measures.html).



## AGENCY SUPPORT AND COORDINATION

The Office of Information Technology provides IT support for all Executive Branch Agencies. This includes providing computer equipment and software, network support, e-mail, and application systems development and maintenance. OIT also provides network and selected other services outside the Executive Branch Agencies including the Judicial Branch, Legislative Branch, and Constitutional Offices (Secretary of State's Office and the Attorney General's Office), although those entities have their own internal IT staffs.

## KEY PRIORITIES

**Online Government:** Technology touches every Mainer every day. Whether you are an employer filing taxes over the Internet, a citizen renewing your fishing license on [www.Maine.gov](http://www.Maine.gov), or a State employee answering a citizen phone call – technology is the backbone that makes it possible. OIT plays a central role in the State's efforts to use the Internet to deliver government services. OIT provides the direction and infrastructure support needed by State agencies to take government online and make it less expensive, more effective, and better able to meet the expectations of the public. Agencies provide electronic services to the public either directly through OIT or indirectly through InforME, a public/private partnership. The CIO serves on the InforME Board and provides staff that facilitates the Board's efforts, coordinates agency activities, and manages the InforME Network Manager contract. For a comprehensive list of on-line services available on the State website, see: [www.maine.gov/portal/online\\_services/index.html](http://www.maine.gov/portal/online_services/index.html).

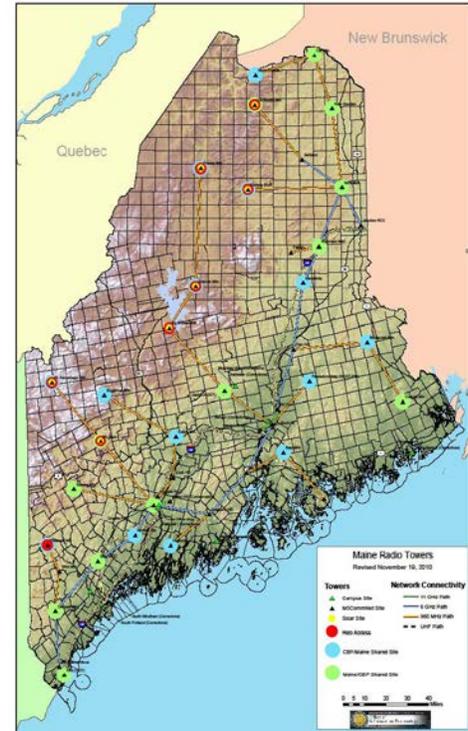
### **Maine State Communications Network (MSCommNet):**

MSCommNet is replacing seven disparate, inconsistently reliable land mobile radio systems operated by individual State agencies with a consolidated, standards-based, land mobile radio system, which will serve all State agencies as well as be compliant with the standards of the Federal Communications Commission (FCC). In 2009 OIT engaged Harris Corporation as the system integrator to design and deploy the new radio system. This \$55 million multi-year effort is scheduled to be completed by October 2012. For more on the MSCommNet project, see:

[www.maine.gov/mscommnet](http://www.maine.gov/mscommnet).

**Network:** As State agencies expand their use of IT to accomplish the business of State government, the IT infrastructure needs to be able to meet the growing demand for capacity, reliability, and security. Specific areas targeted include:

- Expanding network capacity to accommodate increased data traffic volumes.
- Improving network fail-over capacity, to ensure continuity of service and to minimize disruption to State government business functions and citizen services.
- Increasing remote access capacity, to support working from home and off-site.
- Enhancing network security to ensure the integrity of the State's IT assets.



**Wireless Service Expansion:** Mobile employees and technology advances are driving the need for increased wireless connectivity. To this end OIT has a strategic vision to expand the availability of wireless access at its State offices. In addition to secure access to State information assets for State employees, an open unsecured wireless public option is generally available for citizens and customers visiting State offices.

**Agency Application Systems:** In addition to providing computer equipment and network connectivity, OIT staff and contractors also develop and manage computer programs and databases for all Executive Branch agencies. These computer programs are referred to as application systems. The seven largest application systems, in terms of annual cost, are:

- **Maine Integrated Health Management Solution (MIHMS)** – for Medicaid claims processing.
- **AdvantageME** – the State's key accounting system that supports all Executive Branch agencies for accounts receivables, accounts payables, general ledger, and procurement functions.
- **Automated Client Eligibility System (ACES)** – for determining eligibility and keeping data on those receiving benefits under 26 programs (including Medicaid), as administered by the Department of Health and Human Services (DHHS).
- **Labor Benefits** – for tracking and managing those receiving unemployment compensation.

- **Human Resources/ Payroll System** – for State employee personnel data
- **Agency License Management System (ALMS)** – used by 50 regulatory programs to manage more than 600 types of licenses and permits, spread across three departments.
- **Maine Revenue Integrated Tax System (MERITS)** – the central “tax engine” system for Maine Revenue Services.

OIT supports over 1,000 application systems, large and small, for all Executive Branch agencies. To make the most of the State’s IT budget, OIT works with agencies to leverage existing investments. OIT values the business model of first re-use, then buy, then build. Before a new application system is developed, an evaluation of the business requirements is done to consider (in this order):

1. Re-use of existing systems wherever possible; or
2. Purchase of commercial off-the-shelf (COTS) software (or systems developed by other states) if it meets the agency business requirements; or
3. Developing a custom solution only if the first two options are not feasible or economical.

OIT’s IT Product Acquisition (COTS) Policy has saved agencies a lot of money by not “re-inventing the wheel.” Instead, existing systems can be adapted for other agencies or be used State-wide. OIT’s application inventory lists over 1,000 application systems in the Executive Branch, describing the business needs they meet, data interchanges, and technology tools used. This inventory allows OIT to identify opportunities for shared usage or re-use of existing systems. For example, the Agency License Management System (ALMS) has been expanded over the years, now used by 50 regulatory programs to manage more than 600 types of licenses and permits, spread across three departments: Professional and Financial Regulation, Health and Human Services, and Public Safety. ALMS is a prime example of the benefits and savings achieved by using enterprise-wide application systems for multiple State programs.

OIT is continuing to consolidate applications that serve other business functions common to multiple State agencies. These common functions include:

- Licensing and certification
- Human resource and payroll systems
- Financial data-warehouses
- Geographic information systems (GIS)
- Document management and imaging
- Health Information Technology (HIT)/ Health Information Exchange (HIE)

With OIT support, some agencies are investing in business intelligence tools to promote easy access to information, and easy-to-view “dashboards” for business operations. These dashboards, with “drill-down” capability, are in place and being further developed for the Departments of Transportation, Labor, and Health and Human Services.

Within the application systems development discipline, there is greater commitment to delivery of properly scoped projects, on time and within budget. OIT’s applications teams are placing more emphasis on promoting project management processes and discipline, as well as enhancing project management skills among OIT staff. OIT is working to ensure that the entire cost of an

application system is assessed (people, contractors, services, software licenses, network, data center, etc.).

## **EXTERNAL INITIATIVES**

In addition to support of all Executive Branch Agencies, OIT is involved with two major external initiatives, described below. Both of these initiatives serve as a catalyst for improving the State's economy, by bringing better network connectivity throughout the State of Maine.

**NetworkMaine:** The Office of Information Technology, the Maine State Library, Department of Education, and University of Maine System have formed the NetworkMaine consortium to serve the consolidated needs of the major public sector network entities. These needs and goals included increased bandwidths, new technologies, and overall better value service. The result of this effort is the nearly complete upgrade of the Maine School and Library Network (MSLN) and the beginning of the Maine State government network upgrade. These two networks together serve over 1,000 State offices, schools, and libraries state-wide.

**Broadband Access:** Maine's ConnectME Authority is an independent entity created to provide broadband access in the most rural, un-served areas of the State, with the goal of stimulating private investment in technology infrastructure. In the four years since the Authority was established, broadband access or availability has risen to over 91%, with 73% of Maine households subscribing to some type of broadband service (compared to 68% nationally). Economic reports indicate that consumers with broadband at home can save more than \$7,000 a year. Annual revenues of broadband-connected small businesses are \$200,000 higher than those without broadband.

The ConnectME Authority is governed by a five-member Board consisting of three private sector members and two public sector members, one of whom is the CIO or designate. The Authority does not receive General Funds. It uses other dedicated state and federal funds along with private sector dollars to award grants to expand affordable broadband service. To date the Authority has awarded nearly \$6 million dollars through 76 grants to Maine providers, bringing broadband access 33,532 households. The Authority will begin a seventh round of grant funding in the spring of 2012.

During 2011, the Authority continued to manage four major projects through \$5 million of Recovery Act funding from the National Telecommunications and Information Administration's (NTIA) State Broadband Initiative.

- The Broadband Mapping and Inventory project facilitates a more proactive approach to funding infrastructure projects by designating those parts of the state that are un-served.
- The Planning Project provides benchmarking of the uses of broadband, the benefits and the drivers for greater adoption of broadband, with a particular focus on the telemedicine industry sector.
- The Capacity Building Project increases the use of broadband through growth and adoption by businesses, residents, and local support organizations.

- The Technical Assistance Project provides Maine citizens across the state assistance and training necessary to promote broadband education through community presentations, workshops, and coursework making 21st century skills available to all.

The Authority's projects, combined with other Maine Recovery Act funded broadband endeavors totaling over \$42.5 million, adhere to the mantra of being non-duplicative in work and inclusive in efforts. These efforts are bringing broadband services to many new areas of the state and providing benefits to the health, education, and economic sectors. For more on Maine's ConnectME Authority and broadband service in Maine, see: [www.maine.gov/connectme/](http://www.maine.gov/connectme/). The annual report to the Legislature is available at: [www.maine.gov/connectme/about/reports.shtml](http://www.maine.gov/connectme/about/reports.shtml).

## **ALTERNATIVE SERVICE DELIVERY AND “RIGHT-SOURCING”**

Only a robust public/private relationship will allow OIT and the State to accomplish all the information technology work that needs to be done. We are balancing use of OIT staff (in-sourcing) and contractors (out-sourcing) in an IT service delivery model referred to as “right-sourcing.” To meet the growing demand for technical services, OIT has developed business partnerships in many areas. For example our server virtualization included contracting with VMware to assist us during the implementation phase of our project. VMware provided experienced staff that had done this work before, and provided direction and training for the project. OIT technicians have been doing the bulk of the work and OIT managers have been overseeing implementation. The project has gone well, with a great deal of success and minimal setbacks. As we finish the implementation phase and enter into the more stable maintenance and operations phase, our technicians have been trained and possess the necessary skills to support the new environment. As we continue expanding the virtual operating environment, we can make adjustments to the system as necessary and with a high degree of confidence.

The public/private relationship also allows us the opportunity to explore out-sourcing of individual application systems or services as an option within our business model. For example, to provide network services State-wide, OIT has contracts with several business partners (Fairpoint, Oxford Networks, Verizon, and others) to provide network connectivity. This relationship also opens opportunities to partner with interested county and municipal governments, providing them network infrastructure at a shared cost.

Key application systems that have been outsourced include Medicaid claims processing. The Maine Integrated Health Management Solution was implemented in September 2010 and certified by the Federal Centers for Medicare and Medicaid in December 2011. The State's key financial system, AdvantageME is out-sourced to CGI on a long-term contract, and hosted at CGI's data center in Phoenix, Arizona.

Another example of out-sourcing to take advantage of private sector expertise is the Maine Revenue Integrated Tax System (MERITS). MERITS was a multi-phased, 3½-year project to migrate the legacy mainframe-based integrated tax system to a new platform more capable of quickly adapting to the State's ever-changing tax laws and regulations. The MERITS project re-engineered the legacy tax system rooted in old technology, to a modernized system designed to use newer, less costly technology. The project involved partnering with an experienced software

development and integration firm, Revenue Solutions Incorporated (RSI), to migrate system components to a new technology platform in a logical, phased approach.

Overall, OIT has several contracts with a host of business partners that promote the public/private relationship needed to build a robust and cost effective system that meets the increasing needs and demands being placed on technology. As an integral part of our business philosophy, OIT continues to evaluate when and how we can “right-source” to ensure the best and most economical solutions to agency business needs.

## **EMERGING ISSUES AND FUTURE GOALS**

The following seven IT initiatives were presented to the Streamlining Task Force as potential for cost-savings as well as improvement in operations. See the Streamlining Task Force website for details on the Information Technology Presentations at the October 28, 2011 and November 28, 2011 meetings, at: [www.maine.gov/budget/streamlining/](http://www.maine.gov/budget/streamlining/).

**“Cloud-based” Desktop Application Delivery:** Outsourcing to companies that provide IT services via an Internet connection is referred to as “cloud” computing. OIT will modify the current Microsoft Enterprise Agreement that currently commits the State to the full Microsoft suite of desktop application software, such as Word, Excel, PowerPoint, Outlook, etc. The State will leverage its existing licenses in the current suite of Microsoft products through the next biennium, during which time OIT will evaluate emerging “cloud-based” desktop application delivery alternatives. It is anticipated that OIT will issue a request for proposals (RFP) that specifies performance, volume, and security requirements, among other things. The promise of cloud-based application services is to free OIT from many application management, upgrade, and deployment expenses, as well as to allow the use of less-expensive desktop or portable systems without sacrificing functionality. The estimated annual savings starting in FY13 is \$468,049 for the General Fund.

### **“Cloud-based” Storage and Archiving:**

“Cloud-based” data storage and archiving promises to greatly reduce the cost of user file storage. This will be a critical response to the cost growth caused by the rapidly-increasing consumption of storage capacity in response to the continuing accumulation of files and data on state systems. The concept is that all user files over a certain age will automatically be archived in a low-cost non-consumption-based service based upon cloud technology. Users would still have immediate access to the archived files as required for business purposes. OIT will be able to right-size the amount of high-availability fast storage needed to support currently active files. Preliminary estimates of possible annual savings starting with the rates established for FY14 is \$150,000 to \$250,000 (all Funds). This is based on projected estimates of excess storage consumption by the agencies, utilizing budget figures for the current biennium. One current offering from Google establishes its pricing by time in storage rather than by volume of data (the rate is now quoted as \$45 per person per year). This



strategy de-couples volume from cost, making this structure potentially very attractive for state government. OIT will issue an RFP seeking proposals from any vendors capable of providing this service and able to meet the necessary security and data access requirements.

**Data Center Right-Sizing:** As OIT relocates its primary data center from leased space on Edison Drive to a state-owned facility at 19 Union Street, it will leverage emerging technologies to reduce its footprint size and limit electrical power consumption. This will be accomplished through the implementation of direct technologies such as in-line cooling, as well as utilizing cloud-based disaster recovery services. “Right-sizing” assumes that some critical data will reside in both the primary and secondary data centers, but that other data will reside in only one data center, with the backup data residing in the cloud instead. This technique will, for the first time, in effect, place an upper limit on local hardware and power requirements, thus saving money. More information regarding the actual build-out cost of the data center needs to be quantified before the savings estimates in future biennia can be verified. However, the preliminary annual savings estimates are in the range of \$200,000 to \$300,000 (all Funds). This would be realized after completion of the data center and amortization of any build-out cost.

**Server Virtualization:** OIT has made significant progress in virtualizing its Windows-based servers. To date, this has allowed OIT to replace 16 physical servers with 16 “virtual server instances” operating on a single hardware server, thereby reducing long-term total operating costs. This technology also provides the flexibility to quickly set up host environments where and when needed, which can be leveraged to reduce total application support costs, resulting in reduced costs to the agencies. This also contributes to right-sizing of the data center, our ability to use cloud-based disaster recovery services, and reduced power consumption.

**Voice over Internet Protocol (VoIP) Services:** OIT is expanding its use of VoIP technology to replace traditional copper-based telephone services throughout State Government. Consumers may be familiar with VoIP services now sold commercially by Vonage and many Internet Service Providers such as Verizon. VoIP technology leverages the State’s IP infrastructure, including technologies such as session-initiated protocol (SIP), to provide additional user functionality at a lower cost per extension. VoIP systems now run reliably with very good frequency response, taking advantage of the greater Internet bandwidth now (nearly) universally available. Estimated annual savings based on a 15-20% per line cost reduction would result in savings of \$300,000 to \$500,000 (all Funds) per year once fully implemented. It is expected to be realized in the FY14-15 biennium.

**“Bring Your Own Device” (BYOD):** This is a shift from the use State-funded Blackberries to user-paid personal smart phones (e.g., Android or iPhone devices). The strategy is to install apps for accessing state e-mail and messaging on personal devices rather than issue State-owned phones. This reflects the increased demand for OIT to support consumer devices, the difficulty associated with collecting reimbursement for personal use calls, and State employees not wanting to carry two phones. Assuming a reduction by 20% of the Blackberry devices in use by State employees, the preliminary estimate of savings to the State for FY14 would be in the \$100,000 to \$140,000 range.

**OIT Collaboration:** Inter-governmental collaboration and the establishment of public-private partnerships can provide a cost-effective means to share resources and distribute costs. For example, the work that is being done through the ConnectMe Authority is a public/private relationship that is building a high speed broadband connectivity backbone throughout our state. Not only is this link vital to the Governor's "Open for Business" initiative, it also provides state and county governments a profound opportunity to collaborate in ways that were never before possible. Maine Government now has the ability to share real-time infrastructure services and resources back and forth through a "Public Cloud." This "Public Cloud" can contain both municipal and county governments, both of which would benefit from an IT relationship with the State. To that end, OIT has met with County Commissioners from several counties and is now in the process of setting up a series of meetings with the County IT professionals to develop a plan of action. In particular, Somerset County is taking the lead on moving this collaboration vision forward. OIT is also meeting with its counterparts from the other New England states to discuss areas of collaboration such as business continuity and disaster recovery space sharing within our respective data centers. Other areas of interest include consolidation, cyber security, and the use of mobile devices within the State's infrastructure.

## **AREAS NEEDING IMPROVEMENT – CURRENT FOCUS**

**Overall Delivery of Projects and Services:** In 2011, OIT leadership launched an initiative to examine its internal processes in order to improve delivery of its services to agency customers.

**Project Management:** When the OIT Project Management Office was formed in 2006, the TenStep Process was adopted as an integral part of its Project Management Standards, designed to require that all projects have certain specified documents and standards in place. Nevertheless, there remains a considerable amount of work that must be done within the Project Management Office to meet the goal of effective project management and IT service delivery. Lists of projects and the status of each are not easily accessible; project managers do not always regularly update project reports to reflect progress; and therefore, maintaining a current accurate Project Dashboard is difficult. Effective project management is a critical component of efficient and cost-effective performance of OIT, and to achieving acceptable levels of customer service and satisfaction. In order to improve project management, OIT will:

- Review and enforce the implementation of the "TenStep Process."
- Review the performance of the PMO and project management assignments with a view to making needed structural and organizational changes to effect desired improvements in project management.
- Restructure the relationship between OIT project managers and the agencies in order to facilitate better coordination and communication between them as projects are conceived, planned, and implemented.
- Develop a reliance on Memoranda of Understanding (MOUs) between OIT and the agencies to spell out expectations, costs, scope of work, and to minimize change orders.
- Ensure prompt and accurate updates to project status reports and to the Project Dashboard.
- Assist senior managers in the Executive Branch with establishing priorities for IT projects.

- Investigate and invest in appropriate tools, including training and systems, to promote optimal project management and communications.
- Use metrics to monitor the health of projects, to better anticipate potential variances in scope, cost, and schedule.
- Refine its cross-functional model for service delivery;

**Business Continuity and Disaster Recovery (BC/DR):** Continuity of operations is a “business challenge” that has a strong technology support component. State agency leaders need to be involved with BC/DR planning and exercises to ensure that critical citizen services and internal processing can continue without significant impact. Working with our agency partners, OIT will develop a high-level plan to manage the restoration of IT services in case of a disaster or other significant loss of service. This plan must include steps to restore critical command, control, and communication links; access to critical services and databases; and procedures to guarantee the continued integrity of critical State data and operations.

**OIT Billing System:** OIT sets rates for IT services and bills the agencies according to their consumption of services. Based on the requirements of the agencies to provide complete detail of all charges, the task of reviewing this detail and allocating the costs to the appropriate agency programs/accounts by the Service Centers can be very time-consuming. Additionally, due to the volume of detail, errors may be found on the bills that require research and adjustments. DAFS has contracted with the CPA firm Berry Dunn to review the billing systems within OIT and the systems used by the Service Centers. They will then recommend potential changes that would result in more accurate billing and a better understanding by the Service Centers and the agencies where these charges should be allocated.

**Data Security:** Threats to data security will remain a serious challenge for years to come given the number and sophistication of hackers that continually probe industrial, commercial, and governmental data systems for vulnerabilities. OIT must take steps to adequately address these threats, including:

- Designating a security officer for each major application.
- Assign a security officer to be responsible for compliance with external Federal security requirements, and those requirements must be thoroughly documented.
- OIT has developed a security awareness and training program which has been required of all OIT staff since FY2011. This training, however, is not currently required of other agencies (although some are bound by Federal training requirements), but ought to be available for non-OIT personnel as well.
- Expand and improve upon the process of scanning servers for known vulnerabilities. These scans reveal a range of threats from “false positive” to ”severe” and must be evaluated and managed according to the nature and severity of the detected threat.

## **CONCLUDING REMARKS**

As the State’s CIO, of paramount importance to me is effective communications and collaboration with the State agencies we serve. State agencies are full partners with us in exploring the best technology-enabled business solutions for their agencies. IT systems and projects need to be well managed, to ensure they deliver within the scope of the agencies’

business requirements, on-time, and within budget. Together, OIT and the agencies can ensure the on-going delivery of agency programs and operations, as well as creatively transform State government to be more effective and cost-efficient.

I hope to collaborate with the other Branches of State government to look for mutually agreeable cost-cutting opportunities, such as sharing existing technology solutions rather than buying duplicate capacity. I also want to foster relationships with other states, to see where we can take advantage of technology solutions they have already developed, or where we can jointly develop systems at a shared cost.

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