

# MAINE STATE LEGISLATURE

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# 2015 Annual Report

## Information Technology in Maine State Government



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Office Of Information Technology

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## Foreword from the Chief Information Officer (CIO)

This 2015 OIT Annual Report fulfills the statutory reporting requirements of the Chief Information Officer (CIO) set forth in the [Maine Revised Statutes, Chapter 163 §1973](#) subsection 3B and [§1974](#) subsection 6.

### The Office of Information Technology (OIT) marked its 10<sup>th</sup> anniversary on July 1, 2015.

The transformation from the original separate and varied Agency technology groups to a right-sized “Enterprise” scale organization for the Executive Branch began in earnest in 2004. State technology employees were officially on the OIT payroll starting on July 1, 2005.

Before OIT, Agency technology support was within each agency, as early adopters assimilated and adapted to first waves of the information age.

In 2015, Maine was at the forefront of IT consolidations. According to a recent nationwide survey, the majority of state IT organizations are either consolidated or moving towards consolidation, which mimics private industry. State IT departments are consolidating for savings, centralized risk management, and stronger project management and delivery.

**L**ooking back at the first decade of OIT, the public has come to expect more access to government services through the internet — with over 500 online services available through the [Maine.gov](#) web portal, in partnership with Maine state agencies as well as many municipalities.

**L**ooking around us now, we see that the “first generation” of the State Government information technology workforce is entering the sunset years of their careers — and OIT is taking deliberate steps to ensure service continuity by recruiting the next generation of professionals into State service.

**L**ooking forward toward the coming decade of OIT, it is challenging to predict the State of Technology in the year 2025. We know one thing for certain — technology will continue to change at a rapid pace, whether it be robotics, 3D printing, virtual reality, or the Internet of Things.

OIT has over 450 IT professionals providing IT services for all Executive Branch Agencies and their 12,000 state employees, all ultimately serving 1.3 million citizens of Maine.

It is an exciting time to be leading *Maine’s Office of Information Technology*.

Jim Smith  
Chief Information Officer

## Ten Years After: 2005 to 2015

In January 2005, the Office of Information Technology (OIT) was created by Executive Order, consolidating functions, staff, and equipment from the Bureau of Information Services (BIS) and all Executive Branch Agencies. The consolidation was done primarily to promote State-wide information technology 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.

Planning for OIT commenced in earnest in 2004, with most agency technology employees officially transferred to the OIT payroll July 1, 2005. OIT now provides technology support and strategic leadership for 12,000 Executive Branch employees, 14 Cabinet-level departments, and all the smaller agencies in the Executive Branch, in addition to network support for the Judicial Branch.

OIT connects with Maine Citizens in cyberspace through

- [Maine.gov](#) — the State's web portal
- [ConnectMe](#) Authority — broadband connectivity
- [MSCommNet](#) — the unified and modernized public safety radio communications network, commissioned in 2014

**T**he CIO directs, coordinates, and oversees information technology (IT) policymaking, planning, architecture, and standardization throughout state government. As leader of OIT, the CIO —

- Provides central leadership and vision in the use of information, telecommunications, and radio technology on a statewide basis
- Sets policies and standards for the implementation and use of technologies
- Develops and supports IT-related legislation
- Identifies and implements IT business and project management best practices, and
- Facilitates research and development activities to identify and establish effective IT service delivery.

### OIT Day 1 (official) – July 1, 2005

From: Thompson, Richard B [CIO in 2005]  
Sent: Thursday, June 30, 2005 8:50 PM  
To: BIS All Staff; CIO Council; ISMG  
Subject: OIT

Good morning everyone, hope your Friday is going well. Today is the first day of a new organization, a change planned well by many folks and the true beginning of the transformation anticipated and as the IT leadership across state government defined in the IT Management Plan.

The Bureau of Information Services no longer exists today, rather becoming part of a holistic approach to managing information technology along with other agencies. It is a different world, but one we can all thrive within as we (all IT personnel) work as a single unit to deliver exceptional services.

Welcome to all of you (IT folks throughout the Executive Branch) to the Office of Information Technology. This is the beginning of lots of good things to come. To celebrate this event, I am extending an invitation to the employees at Edison Drive, the Council and members of the ISMG to attend a coffee and cake event as a thank you for the persistence and hard work you all exerted to bring us to this point.

It is scheduled for today at 9:30 to about 10:30 in the upstairs conference room (next to the cafeteria) at 26 Edison Drive. Cake and coffee on me. I apologize for the short notice, but it just occurred to me Thursday, that this is an event deserving some recognition or to quote an old friend of ours (Ray Halperin) we need to celebrate success a little more.

There is much more to do, but the accomplishments to date are fine work. Thank you for the support and efforts. Hope to see you later this morning.

Dick Thompson (was the CIO in 2005)

## OIT in 2020: The Five Year Plan

**OIT** strategy for the Five-Year Plan will encompass project delivery, building a resilient, redundant, and flexible infrastructure, and risk management (including cyber security and disaster recovery).

The foundation for the next five years will be:

1. **Business Process Management (BPM)** for process efficiency
2. **Agile Methodology** for predictable project delivery
3. **Enterprise Strategy** for reusable systems
4. **Risk Management** (cyber security and business continuity/ disaster recovery planning)
5. **Workforce Development** for finding and training the needed technology professionals

### The Evolved Approach: Enterprise Modernization

OIT proposes over the next five years to develop a focused strategy of enterprise modernization. Investment in these five strategic areas will result in reduced development costs, reusability of assets, predictable delivery, and flexibility.

#### **Business Process Management**

- Help Agencies to respond to changes quickly
- Empower Agencies to make changes themselves
- Reuse tools that work across government
- New tools and products quicker to market

#### **Agile Delivery**

- Agencies drive the priorities
- Agencies control costs
- Implementations are 3 times more successful
- Making changes is low risk and straight forward
- Predictable project delivery

#### **Legacy Modernization**

- Methodically retire expensive legacy systems
- Replace aging inflexible hardware
- Develop a modern flexible workforce
- Currently legacy maintenance costs \$50M in FTE support annually

#### **Risk Management**

- Redesign aging, vulnerable networks
- Design infrastructure with disaster recovery included
- Bolster our cyber security workforce and tools

#### **Workforce Development**

- Hire new skills and talent
- Harmonize skills around small number of platforms and technologies
- Knowledge transfer to new workforce
- Address shrinking talent pool through interns and outreach

## Enterprise Strategy

## Future Direction and Vision

Successful information technology organizations

### People — Process — Technology

are often described as the combination of three elements –

OIT will continue to evolve as an organization using these three pillars:

- **People** – putting the right resources in place, using Workforce Development
- **Process** – improving processes for our customers and ourselves – business process management (BPM), workflow, billing transparency – to gain greater efficiencies
- **Technology** – whether cloud, 3<sup>rd</sup> party, or in-house, mobile or business analytics, we will continue to use forward-looking, but proven, technology

We are working with our agency partners, outside partners, and other government organizations, to minimize risk (cyber security, business continuity/ disaster recovery), ensure stable, cost-effective platforms, and provide technical solutions through project management best practices.

## OIT Outreach

Communications and collaboration is critical to our success. Two recent examples of OIT outreach include:

### Tour of OIT for several Legislators from Appropriations Committee and State and Local Government Committee

- OIT overview by the CIO
  - 5 year plan
  - Demand for services
  - Enterprise strategy
  - Constraints
  - IT budget
  - Partnerships
  - National recognition
- Business process management (BPM) overview
- Application systems overview
- Project management and Agile overview
- Risk management – cyber security
- Workforce development overview
- OIT tour

### Agency IT education – bringing in industry leaders to review trends

Topics covered:

- National Association of State CIOs – top 10 priorities for state CIOs
- Agile methodology for systems development
- Business process management (BPM)
- Mobile apps
- Legacy applications
- Network strategy
- Cyber security
- Cloud strategy and data centers
- Disaster recovery
- Big data and business intelligence
- Call center/ telecom technology

## Challenges and Opportunities

Since the technology consolidation in 2005, we have made great strides in centralizing client and infrastructure services. This has resulted in more stable, secure and lower cost services to agencies; and the State IT workforce has 80 less FTEs than before the consolidation. But over time, with the pressure to continually lower costs we have deferred investments in our State's IT infrastructure. This lack of investment has resulted in a less flexible, higher cost, higher risk environment.

The Office of Information Technology maintains an inventory of over 600 applications, many built on older technologies. Refreshing applications or migrating to newer, modern, and flexible platforms requires time and money, and involves risk (change) to the Agencies.

Additionally, agencies have often invested in single point solutions (multiple imaging systems, licensing systems, etc.) instead of enterprise solutions. This is often driven by the timing of Federal funding, but has resulted in a hodge-podge of expensive boutique solutions. Multiple solutions, with multiple technologies, require more, expensive resources to maintain them – reducing economies of scale.

### Single Point Solutions

- 25 separate licensing systems
- Five Imaging systems
- Numerous home grown applications and databases
- Specialized technology requires dedicated resources

### Waterfall Projects

- 95% fail to deliver full value (*Standish Group*)
- Expensive and complex change process
- Agencies lose control of costs
- Slow to market

### Old Rigid Software

- Expensive to maintain
- Newer workforce is not trained in, has limited interest in older technology
- Improvements are costly in dollars and downtime

### Fragile Infrastructure

- Difficult to maintain without downtime
- Increasingly difficult to keep secure from cyber threats
- Workforce needed to maintain is aging
- Unable to isolate applications - threat to one is a threat to all

## Constraints

We need to evolve from the world of legacy applications and infrastructure, and agency-specific applications, to a world of Enterprise strategy and vision, modern tools and methodology, and predictable delivery. We need to evolve from a world where we are building applications many times and using once, to a world where we build once and use many times – true shared services.

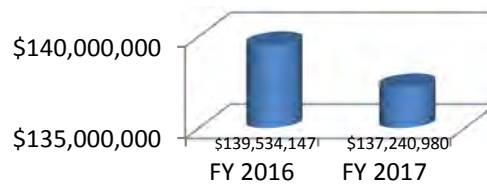


## Financials

### *OIT's Rate-Based Budget*

The Office of Information Technology (OIT) was established to provide IT leadership and consolidated services to all Executive Branch agencies, other State agencies and qualifying public entities in the areas of state-wide computing and telecommunications technologies (voice, data, video and radio), enterprise network applications, and infrastructure services. OIT also has oversight of all application services delivered to and maintained by Executive Branch agencies to satisfy the agency's business plan and meet the overall objectives of the administration. Prior to consolidation in 2005, the true cost of technology services to individual State agencies was not visible in the budget process. Enterprise IT rates expanded in FY06 to include most technology services provide a centralized and visible budget forecast model based on individual agency demand.

### Projected Statewide IT Budget 2016/2017



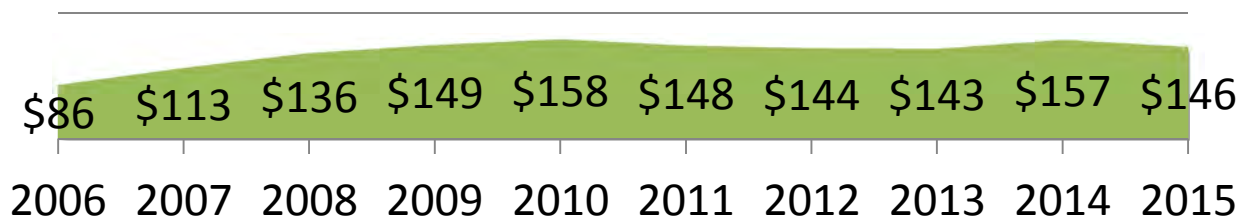
The **Statewide projected IT budget** – what's in the original Agency submissions to the budget office – is \$139,534,147 for FY16 and \$137,240,980 for FY17.

### State IT Budget 2015 \$146.3 million



FY15 State IT budget is \$146,362,543

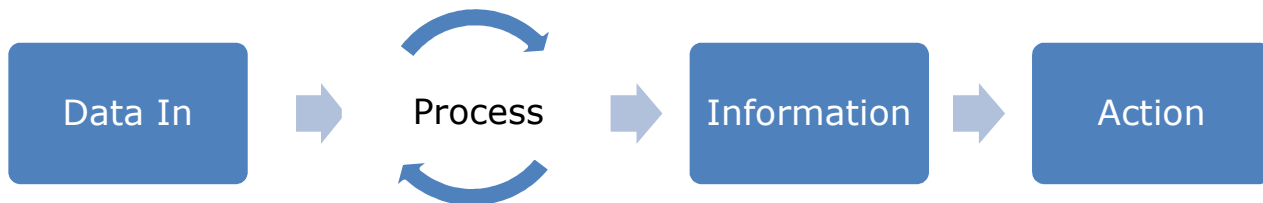
## \$— State Total Annual IT Budget —\$



## Key Areas – Strategy and Accomplishments

### Business Process Management (BPM)

Business Process Management (BPM) is a discipline that uses various methods to discover, model, analyze, measure, improve, and optimize business processes through technologies. Almost everything we do in the State of Maine involves process:



Today's mix of manual processes and legacy applications has resulted in expensive and unsustainable systems. BPM is a way to untangle the pipes – to straighten the flow and optimize productivity.

#### Immediately deliver operational efficiencies

Business Process Management has been embraced by the private sector for more than ten years as a way to drive efficiency and improve service delivery. Gartner studies have listed business process management as the *primary driver of operational efficiency* since 2009, ahead of legacy modernization.

The value of Business Process Management is well documented. When an organization modernizes their systems and processes with a mature BPM application, they see a 20% reduction in maintenance costs, 30% reduction in operational costs, and a 20% reduction in new employee onboarding time.

#### Process Innovation

Through BPM, process innovation is achieved by seeking efficiencies through automation. Across Maine, many state processes involve a series of human-based steps. In a typical claim process, a clerk may manually retrieve the customer information and route the claim to be processed. This claim will then be reviewed to determine the appropriate action and then go through a series of manual approvals before finally being closed out and payment made.

What if you can reduce the time to manually process the claim and provide visibility to the customer and management on the status of the claim, thereby reducing backlogs and speeding up processing time? You can through BPM. A BPM application reduces or eliminates many human-based steps and provides visibility to the customer through alerts and notifications. In our example, it also allows management to see where claims are in the process, and provides them the flexibility to re-route work to decrease backlogs and increase productivity. In addition, the applications are rules-driven and designed for change, allowing for automated decision making and flexibility should business rules change.

## Key Areas – Strategy and Accomplishments

### *BPM Value:*

BPM is also known as business process redesign, business transformation, or business process change management. BPM and workflow analysis help organizations fundamentally re-think how they do their work in order to dramatically improve customer service and cut operational costs. They promote business effectiveness and efficiency while striving for innovation, flexibility, and integration with technology. When BPM and workflow analysis are done prior to implementing automation, the resulting streamlined business processes and workflow can improve agency program effectiveness, speed the delivery of services, and significantly reduce operating costs.

### *BPM Partnerships*

The Maine OIT BPM team has been working with various agencies to look for both process efficiencies and opportunities to define common processes across the enterprise. Examples of this collaboration are:

#### *Board of Pesticides Control's Maine Pesticide, Enforcement, Regulation and Licensing System (MEPerls)*

MEPerls automates a number of manual processes; identifies bottlenecks in workflow processes; provides an internet interface for external constituents; accommodates electronic transactions; interfaces with the State's accounting software (AdvantageME); provides mobile electronic inspection application; and enhances reporting. Expected benefits of MEPerls are:

- Reduce accounting process by 67%
- Reduce the number of paper license applications processed by 80%
- Reduce the number of paper exam applications processed by 89%
- Reduce the license application processing by 67%
- Reduce staff time by 75% by automating annual report querying and summarization

### *Department of Marine Resources' Licensing, Enforcement and Environmental Data System (LEEDS)*

With LEEDS, the public will be able to manage their licenses and reporting through a mobile friendly interface. LEEDS will also save staff time by automating license eligibility determination and reporting compliance, automatically routing work within DMR, and provide automated correspondence and reminders within a single portal, most of which are currently done through a time-consuming and manual process. LEEDS has automatic timers that can escalate work if it has passed certain deadlines. Marine Patrol will be able to submit case information to supervisors through a user-friendly interface, which will be routed through the chain of command with the push of a button.

### *Other Key BPM Projects:*

- **Department of Labor (DOL) Blocked Claims application**
- **Department of Administrative and Financial Services (DAFS) MainePays accounts payable application.** This will be used by multiple agencies, governance by Office of the State Treasurer. It will significantly reduce payment transactions incurred by the State of Maine
- **Office of the State Treasurer PayMaine payment module application**

# Key Areas – Strategy and Accomplishments

## Agile IT Project Management

Agile development takes any project of any size and breaks it into many small, mini-projects, each lasting between two and four weeks. The Agile approach is to deliver tested functionality every 3 – 4 weeks, versus 6 months to years for waterfall projects. Agile minimizes the risk, and improves the predictability by taking one large, high risk project and decomposing it into many small, lower risk projects.

Agile is a project management framework that maximizes the efficiency and quality of product delivery to end users.

- Requirements evolve but the timescale is *fixed*
- Capture requirements directly and visually from users for immediate development
- Develop small, incremental releases and iterate
- Focus on frequent delivery of products
- Complete each feature before moving on to the next
- Testing is integrated throughout the project lifecycle – test early and often
- A collaborative and cooperative approach between Agency and Technology

*“Agile teams are 25% more productive than non Agile developers” – Scrum Alliance*

To agencies, Agile gives the business control over what is delivered based on the priorities that are most valuable to the agency’s mission. It also allows managers to know with very high accuracy how well the team is performing, not month to month but day by day:

- **Lowers Risk:** Problems are caught daily and fixed weekly, not in final testing when it’s too late.
- **Software works as business intends:** Business and IT are focused on same goal at the same time

- **Reduced unexpected costs:** Initial quality is higher which mean less rework
- **Develop direction changes with the business:** Priorities can change every three weeks.
- **Agencies realize value faster:** Finished pieces can be used as soon as they are completed

## Agile versus Waterfall

### Agile

- 75% Success rate
- Resources are 25% more productive
- Short delivery time means products to market faster
- Takes weeks to plan
- Lowers Risk
- Issues are identified quickly
- Very easy to make course corrections
- Business is in full control of the delivery
- Quality assurance is done from day one

### Waterfall

- 80% failure rate
- Standish Group
- Long delivery cycles -- expectations often not met
- Takes months or years to plan
- Increases Risk
- Isolates Business from details of project
- Difficult to make course corrections
- Encourages Silos
- Planning errors go undetected for months
- Quality Assurance is an afterthought

## Key Areas – Strategy and Accomplishments

### *Agile Project Management Center of Excellence Established in 2014*

The Agile Center of Excellence will:

- Manage and report on Agile projects state-wide
- Assure that the practice of Agile is followed with discipline and fidelity
- Help Agencies identify ways to improve the efficiency of their current through Agile
- Identify new projects for Agile delivery
- Prepare and present Agile outreach workshops
- Create the Agile training curriculum
- Provide and manage Agile professionals to projects and agencies as appropriate
- Create a State of Maine Agile practice guide

### *Project Management Office / Business Process Management Resource Sharing Plan*

To better manage the fast pace of development for Agile/ business process management (BPM) projects, OIT's Project Management Office (PMO), in partnership with the BPM Center of Excellence, consolidated manpower and talent acquisition processes into a single process that allows for better resource management, reuse of quality resources across projects, and streamlining of the billing for Agile/BPM projects.

There is now one process for estimating, acquiring, and billing both delivery and technical resources for Agile/BPM initiatives. This process will:

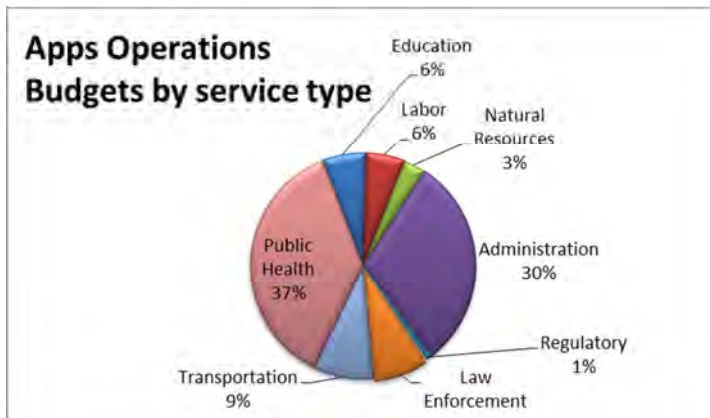
- Allow for quicker resource identification
- Assure that quality resources are retained through multiple projects
- Make our workforce more nimble so we can assign resources for the best use
- Harmonize the billing for Agile/BPM invoices
- Deepen our cross-functional capabilities

### *Core Technology Services / Project Management Office Partnership*

Within OIT, Core Technology Services (CTS) has partnered with the Project Management Office (PMO) to provide delivery expertise to CTS portfolio of initiatives. This allows technical resources to focus on implementing the best technical solutions, while PMO delivery resources focus on process, communication, and removing barriers so that CTS resources can reach maximum effectiveness. Two major initiatives as examples are Windows 7 and Internet Explorer 11 upgrades. These were very large, complex projects.

# Key Areas – Strategy and Accomplishments

## Application Services



With 350 staff members and contractors, OIT Applications Services supports the 600+ agency and enterprise application systems for all agencies of the Executive Branch of Maine State Government. While historically Applications Services provides teams dedicated to serve specific agencies, we are exploring options for serving agencies along their specific lines of business. This is seen to be particularly attractive for Natural Resources and Law Enforcement agencies which have similar needs but individually lack the size needed to support specialization and succession planning.

We recently created the Enterprise Warehousing and Analytics team with a goal of developing an analytics service model for the smaller agencies, as well as leveraging this expertise to explore more advanced services for the larger ones.

Staff recruitment and retention remain a significant challenge. We have been successful in filling several key management vacancies but somewhat less successful in the technical areas, leading to a slightly higher reliance on contracted resources. This is exacerbated by the large percentage of legacy applications. Some applications are 40 years old and require skills that are increasingly rare. About 84% of the budget for Applications Services is dedicated to operating and maintaining the State’s legacy applications.

As these systems reach end of life, Applications Services is working with agencies to ensure that replacement

and/or modernization efforts are properly scoped, on time, and within budget. OIT’s applications teams are emphasizing traditional project management processes as well as Agile to address these efforts.

Towards this end, Applications Services is increasing its partnerships with OIT’s Project Management Office and Business Process Management team to bring the appropriate disciplines and focus to bear, as well as working very closely with the agencies to ensure that the right partnership and ownership are in place for successful projects.

Listed below are a number of key modernization and replacement efforts underway:

### *Key Projects*

#### **Enterprise – Application Portfolio Rationalization (Legacy Modernization)**

As part of OIT’s Enterprise Strategy in the FY16/FY17 timeframe, OIT is initiating an application rationalization process that will evaluate the State’s current portfolio of aging applications, and realign them with the needs of the enterprise and the agencies of state government. While an important goal of the effort is to eliminate redundant and non-value-adding applications, freeing up future budget for new business-critical work, another important goal is to highlight areas requiring additional investment, and the outside expertise needed to be successful. The process will require a strong partnership between State agencies, OIT, and perhaps outside partners to transition from the traditional strategy of continuous acquisition and assessment of individual applications to toward a modern continuous life-cycle management of the application portfolio as a whole.

#### **Labor – Bureau of Unemployment Compensation Tri-State MRM Consortium**

- This project will replace the Department of Labor’s 40 year-old custom-built unemployment compensation and tax systems, which are used to support the

## Key Areas – Strategy and Accomplishments

general public and employers, with respect to the collection and disbursement of unemployment benefits.

- The effort seeks to adapt an existing modern, streamlined, and largely paperless system to support the joint needs of Maine, Rhode Island, and Mississippi and continue to interface with over 170+ existing systems and data partners.
- Scheduled to be complete in 2019.

### **Education – NEO (New Education Ontology) Project**

- This is a project to enhance the DOE NEO omnibus application which supports departmental operations, as well as programs that support school district operations, and disbursement of state funds. Several modules are undergoing enhancement including:
  - Core application (complete FY17)
  - Essential Programs and Services (ED279) report which calculates the annual state funding for the School Districts (no completion date)
  - School Nutrition (complete FY17)
  - Bullying, Seclusion and Restraint Complaints tracking (complete FY16)
  - Staff tracking – new module supporting education credentialing and public transparency (complete FY17)

### **DHHS - Electronic Health Records Project**

- Will replace the 7 year old DHHS Meditech Electronic Medical Records (EMR) solution for the Riverview and Dorothea Dix State Psychiatric Hospitals. This legacy system does not currently fulfill the needs for the hospitals.
- Expected to be complete 2016-2017.

### **Labor - DOL/GEN-III**

- Will replace the Department of Labor's 17 year old custom-built GEN-II case management system for labor standards, enforcement, and training.

- Will replace an incomplete, end-of-life system with a cloud-based commercial off-the-shelf package that provides additional functionality, security, accessibility, and reporting.
- Target completion date is June 2016.

### **DHHS - Maine Background Check Program**

- Will create a system where background checks can be performed from a single point, saving the effort of checking many sources of information individually for facilities that are licensed by the Division of Licensing and Regulatory Services (DLRS).
- It initially serves providers of care for the elderly as well as children, and is expected to be expanded to many areas where this service is needed.
- Scheduled to be complete FY16.

### **DHHS - Eligibility system (ACES) Modernization (15/16/17)**

- The Automated Client Eligibility System (ACES) is over 10 years old. There is an ongoing struggle to stay in compliance with existing and evolving State and Federal policies.
- The plan is to implement a business rules engine to replace the current "home grown" model, design and implement program integrity functions that provide a "red flag" during the initial eligibility determination process; implement application performance enhancements, and provide data access/reporting enhancements. This plan is currently under review by the Federal Centers for Medicare and Medicaid Services (CMS).
- This has been approved by CMS and the work has begun with initial deliverables scheduled for April of this year and completion in FY17.

### **DHHS - Child Support Enforcement for Maine performance analytics dashboard**

- Development of a new performance analytics dashboard with built-in intelligence that provides

## Key Areas – Strategy and Accomplishments

information and status of cases for all child support operations.

- Expected completion is early FY16.
- We will also be modernizing the Interactive voice response system with web enabled portal access to allow increased client access to their case information.

### *Maine Revenue Services - Web Portal*

- Will replace several public-facing applications with an integrated web portal for Individual income taxpayers and business taxpayers. In a phased approach, the portal will ultimately provide services related to 46 tax types. Expected to be completed in FY17-18.

### *DAFS – Human Resources Management System (HRMS)*

- This is a major project to replace State of Maine enterprise suite of human resources and payroll legacy applications residing on the IBM mainframe, as well as multiple paper-based processes that still exist in the Bureau of Human Resources and Employee Health Benefits.
- The new system will be a cloud-based, software as a service solution.
- Projected delivery July 2017.

### *Maine Revenue Services - Collections Technology Project*

- Provides improvements in the lien process and has implemented improved phone number management in conjunction with the LiveVox automated phone system that schedules and completes phone calls that improves daily call volume for collectors.
- Also included are address management enhancements that we expect to reduce the amount of returned mail, replacement of older Access spreadsheets through database enhancements, as well as work lists and improved reports for collections processing and tracking.

### *DHHS – Eligibility System (ACES) and Child Enforcement for Maine (CSEME)*

The implementation of Encryption-in-Flight (EIF) between the application and database layers in both our ACES and CSEME production environments ensures that the sensitive data passed back and forth is fully encrypted. This effort will continue with the implementation of Wallets to the client devices which will effectively block that potential risk and strengthened our overall data transmission security by ensuring all data is encrypted/decrypted between the two seamlessly based on the trusted certificate relationship established during the login process, eliminating the external threat of data being captured during transmission.



# Key Areas – Strategy and Accomplishments

## Risk Management

### Cyber Security

The Office of Information Technology has made significant progress in the last three years in combating cyber threats. But Cyber Security threats continue to proliferate, and given a network of our size and complexity, the current Cyber Security posture is still not quite on par with industry best practices.

#### The Challenge

From a Cyber Security standpoint, the State Executive Branch network presents the following challenges:

- 400+ sites, stretching from Kittery to Madawaska
- 12,000 users with desktops/laptops
- Almost 1,000 servers
- 30,000 "other" devices (phones, printers, routers, HVAC controllers, cameras, etc.)
- Almost 1,000 applications
- Numerous non-state devices (approved and not approved)
- 1,000s of remote devices
- Commingled network with the Secretary of State, Attorney General, Audit, and the Judiciary, with no security walls in-between
- 20 separate lines of business with different priorities
- External attacks have increased roughly five-fold in the last two years

#### Threat Metrics

On an average working day:

- 15 workstations get infected with malware, leading to loss-of-productivity of about six hours per workstation
- The firewall rebuffs some 5,000 intrusions
- 30,000 spam emails are blocked

#### Background

The citizens of Maine trust the State with a massive repository of personal information, including Social Security numbers, date of birth information, addresses. Breach of citizen personal information inflicts a stupendous damage to a government. At a minimum, it includes citizenry's loss-of-confidence in their government, statutory fines, the added expense of investigation and remediation, etc. Unfortunately, cyber-attacks are becoming more common, and inflicting greater damages. The most serious state-level breach was the South Carolina Revenue breach of October 2012, which compromised 3.6 million Social Security Numbers and 387,000 credit/debit cards. The cost of remediation has been estimated at \$27 million.

There are no guarantees in Cyber Security. In spite of best efforts, a network of our size and complexity will always have its weak points. But it is important to harden the network to industry best practices. This will dissuade hackers, who will then more likely move on to softer targets. Mitigating a Cyber Security breach post-fact is at least an order-of-magnitude more expensive than guarding against it.

Cyber Security is a matter of continuous vigilance, and is never fully done. OIT is proud of its accomplishments over the last three years. Nonetheless, the State still faces significant Cyber Security gaps.

#### *Governor's Executive Order on Cyber Security*

The Governor's Executive Order 2014-0003 on Cyber Security mandated annual Cyber Security training and OIT's oversight on devices accessing State data. See (<http://www.maine.gov/tools/whatsnew/attach.php?id=626944&an=1>)

## Key Areas – Strategy and Accomplishments

### *Agency Meetings on Cyber Security*

OIT is also launching a series of high-level meetings on Cyber Security with agency partners, especially those agencies that are major custodians of personally identifiable information. This is based on a model pioneered between OIT and Maine Revenue Services over the last six months.

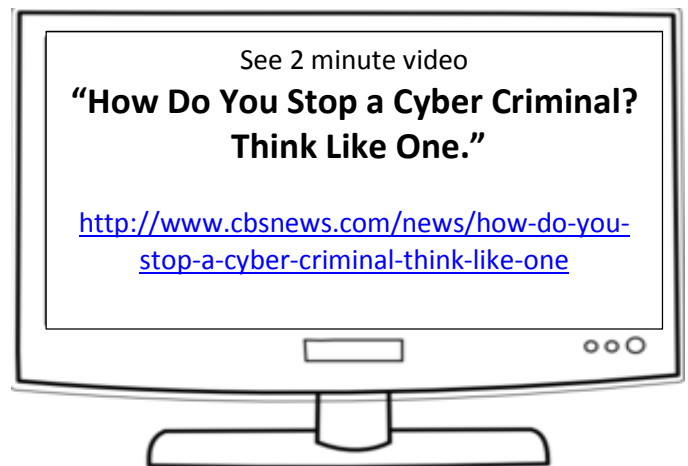
### *Maine Cyber Security Cluster*

OIT is part of a consortium supporting the Maine Cyber Security Cluster, with a goal to increase the number of students in Cyber Security at the University of Southern Maine (USM).



***“How Do You Stop A Cyber Criminal? Think Like One”*** was the title of a CBS News segment on September 24, 2014 highlighting cyber security training at USM.

***“How Do You Stop A Cyber Criminal? Think Like One.”***



## Key Areas – Strategy and Accomplishments

### *Cyber Security Highlights for 2015*

#### **Cyber Security Workgroup:**

The Governor's Executive Order 2014-0003 (<http://www.maine.gov/tools/whatsnew/attach.php?id=626944&an=1>) mandated the creation of a Cyber Security (Information Protection) Workgroup. The first meeting of this Workgroup was held on May 12. The Workgroup is chaired by the CIO, and includes representatives from Maine Emergency Management Agency (MEMA), Public Safety, the National Guard, the University of Maine, the Maine Cyber Security Cluster, as well as the cities of Bangor and Auburn. In the future, it will also include a representative from the U.S. Department of Homeland Security. The goal of the Workgroup is to develop best practices for risk management, and make recommendations to the Governor. The Workgroup had a strong launch, and intends to create concrete recommendations on how to better protect the entire government, as well as municipal critical infrastructure.

#### **Cyber Security Insurance**

OIT worked with the Department of Administrative and Financial Services (DAFS) Risk Management Division and Purchases Division and the Attorney General's Office to update the standard IT contracting template to mandate cyber security insurance for other-party (cloud) hosting providers. The coverage is tied to the number of personally identifiable records that is covered in a particular contract.

#### **Personally Identifiable Information Agency Cyber Security Initiative**

The Citizens of Maine trust their government with a massive repository of Personally Identifiable Information (PII). It is important for the State to reciprocate that trust with the maximum possible protection of that PII. OIT has launched a dedicated Cyber Security initiative with those agencies that

routinely transact in PII. These agencies include the Departments of:

- Health and Human Services
- Labor
- Education
- Public Safety
- Corrections
- Professional and Financial Regulation

The goal of this initiative is to get the PII agencies to a baseline of Cyber Security protection that is in alignment with the current industry best practices.

Beyond the big items listed above, OIT is also exploring many other Cyber Security improvements, such as Log Analysis, Firewall Modernization, Additional Encryption, Network Segmentation, etc.

#### **Cyber Security Tabletop Exercise**

An all-day Cyber Security Tabletop Exercise was convened by the Maine Emergency Management Agency (MEMA) on January 14. It simulated cyber attacks and data breaches of State information assets. The morning session was dedicated to the Department of Labor's Bureau of Unemployment Compensation. The afternoon session was dedicated to the Maine Public Utilities Commission. The exercise was facilitated by the Federal Emergency Management Agency (FEMA). The exercise scenarios were jointly developed by the Office of Information Technology (OIT), MEMA, and FEMA. Valuable insights, covering both agency business functions and technology, were gained as a result of this exercise.



















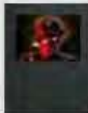




## Key Areas – Strategy and Accomplishments

### *Cyber Security Training Mandated by Governor's Executive Order (2014-0003)*

In July 2014 the Governor established a Cyber Security Working Group and also mandated annual cyber security awareness training for all State employees.

#### List of Mandatory Training Videos for State Employees to be reviewed annually

 Introduction 1:36	 You Are The Target 2:37	 Social Engineering 2:19	 Email & Messaging 4:36
 Browsing 1:37	 Social Networking 2:22	 Mobile Devices 2:11	 Passwords 3:37
 Encryption 1:37	 Data Security 2:37	 Wi-Fi Security 1:52	 Working Remotely 3:15
 Insider Threat 1:41	 Help Desk 2:44	 IT Staff 4:25	 Physical Security 2:36
 Hacked 2:33	 PII 0:37	 Advance Persistent Threat 3:37	 Social Security Numbers 2:03
 END 0:48			

## Key Areas – Strategy and Accomplishments

### Business Continuity/ Disaster Recovery (BC/DR)

Agencies in Maine State Government increasingly recognize their dependence upon information technology and the importance of implementing a more formalized Business Continuity / Disaster Recovery (BC/DR) planning to assure continuity of State services to the citizenry.

In 2014 OIT instituted a formal and disciplined BC/DR program to support the Agencies, and commenced the following major initiatives:

- ⊙ Implementing **Disaster Recovery Institute (DRI)** methodology, and adopting auditable international standards (ISO 22301:2012).
- ⊙ Specialized training and certification for technical teams and managers with direct responsibilities within the BC/DR Program.
- ⊙ Acquiring cutting edge BC/DR tools to effectively manage enterprise BC/DR and increase situational awareness of risks.
- ⊙ Business Impact Analysis (BIA) project for OIT.
- ⊙ Advise and assist customer agencies with BIA projects to create an enterprise functional interdependency map (and gap analysis).
- ⊙ Quarterly BC/DR exercise program.
- ⊙ Overhaul of policies and procedures for responding to major incidents and disasters.
- ⊙ Establishing a robust core IT infrastructure with redundancy and high availability as well as leveraging commercial “cloud” technologies.

### Business Impact Analysis Project

A Business Impact Analysis (BIA) was completed in June 2015 within OIT (the first industry-standard BIA conducted within the State). This was a critical milestone in the development of the OIT BC/DR program. The data and analytic results of the BIA were used to: (1) prioritize business functions, (2) identify critical business function interdependencies, (3)

determine current recovery capabilities and gaps, and (4) facilitate the creation of tactical disaster recovery procedures and future BC/DR strategies. This methodology has been tested and refined and is being adopted by other Agencies to improve the overall BC/DR maturity of the Executive Branch.

### Automated Business Continuity Management Tools

A challenge for any Business Continuity Program in a large organization is ensuring the information is always accurate, updated in a timely manner, strategic capability gaps are easily discovered, and all information is easily accessible in any situation. An award-winning application was procured for future use in planning and management of all BC/DR programs within the enterprise. This powerful tool enables agencies to keep BC/DR plans up to date in real-time, conduct detailed analysis on their business functions and workflow processes, and share their data with the enterprise. This will enable all agencies to understand their interdependencies both internal and external to their organization and throughout the Executive Branch. This will facilitate communication between Agencies to best allocate resources and make informed strategic BC/DR decisions, working together as a State to create a resilient government together.

### BC/DR Exercises

OIT began conducting quarterly table-top BC/DR exercises, incorporating the practice into our regular operations. Through these exercises, OIT has continuously identified its strengths and weaknesses in its ability to handle unplanned disruptions. The findings are being incorporated into operational and tactical procedures within OIT, continuously improving the level of service to its customer agencies.



# Key Areas – Strategy and Accomplishments

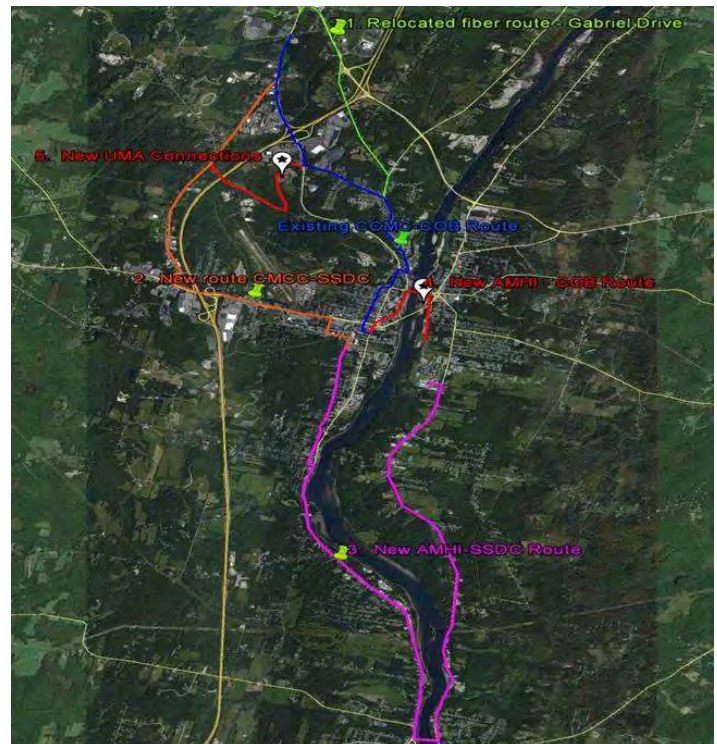
## Network/ Infrastructure Improvements

With State agencies increasingly reliant on network availability, OIT Network Services has undertaken a series of initiatives to improve capacity and reliability for all State agencies. All of these improvements will be complete within the next year and are fully funded in existing rates.

- 1. Internet capacity:** Total bandwidth is being increased 6-fold, from 350 megabits per second (Mbps) to 2,000 Mbps (or 2 gigabits per second) on two separate network links. This design will ensure that if one link fails or needs to be serviced, the other link will have sufficient capacity to provide acceptable response times.
- 2. Core Network Improvements:** The OIT Network Services team has finalized plans and signed contracts to upgrade the most critical elements in the State’s data network. The goal is to reach 99.999% (“five 9s”) reliability, which translates to less than 5 minutes of down time per year! In order to reach this ambitious objective, all key network components will be duplicated to provide a back-up should a primary device fail, and to allow technicians to take one device off-line for repairs without affecting network availability.
- 3. Telephone SIP Trunks:** Session Initiation Protocol (SIP) trunking is a newer technology that allows Voice over Internet Protocol (VoIP) systems like the State’s Avaya phone system and network providers services (e.g., FairPoint, OTT, Oxford, GWI) to interconnect in a manner that improves

failover capability, increases capacity, and adds new functionality while reducing complexity and cost. The SIP trunks should be in place by the end of 2015. As cost savings are gradually realized, legacy phone systems (Nortel and Centrex) will be migrated to the State’s VoIP telephone system over the next 2 years.

- 4. Augusta Fiber Ring:** The three Augusta campuses, (East Campus, State House Campus, and Commerce Drive Campus) each comprise roughly 2-3,000 State employees. Connections between these campuses currently run on fiber optic cables that link Commerce Drive to the Cross Office Building (COB), and COB to the East (Riverview) campus. While this design has been adequate in the past, a single car accident that takes out a pole could leave an entire campus without network access. A design has been developed and will be sent out for bid to provide two separate network entrances to each campus so that no single fiber outage can take a major campus out of service. The map below depicts the anticipated routes between the 3 campuses.



# Key Areas – Strategy and Accomplishments

## Workforce Development

Research both nationally and statewide indicates that there are not enough technology and computer science resources graduating from college to replace the retiring workforce, or to keep up with the growing need of IT resources

OIT is attempting to overcome the “Silver Tsunami” effect by having proactive efforts to hire interns and veterans. OIT mentors are assigned to help ensure success of the intern program.

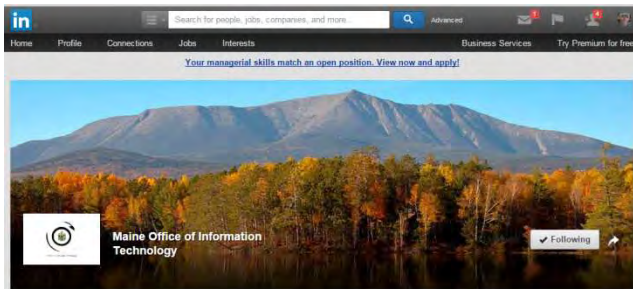
**25%**  
**of OIT workforce will be eligible to retire in the next two years.**

**The next generation of IT professionals are well established in cyberspace including LinkedIn and Facebook**

OIT is meeting them where they are to attract some of the best and brightest to establish their IT careers here in Maine and at the Office of Information Technology.

**Online presence is now expected and essential.**

### OIT in LinkedIn



### OIT in Facebook



## Key Areas – Strategy and Accomplishments

### The R's in Workforce Planning

# R

ecruitment  
etention  
etirement

Recruitment, Retention and Retirement are the three workforce planning areas that were initiated at OIT as a focus in 2014-2015.

We have retained 70% of the interns who have completed a full internship as full-time employees.

**Retrain, Refocus, and Recreate** - innovative means to develop and measure our workforce.

# R

etrain  
efocus  
ecreate

#### *Workforce Solutions*

OIT is addressing challenges with a proactive approach led by a learning and development team working collaboratively to improve OIT's technology workforce skills, to attract and recruit the new generation of workers, and to establish training to encourage career paths and address succession planning.

The most important goals are:

- Continue to raise the bar and move forward on all measurements of the R's
- Create opportunities for small steps to make great gains- social media- online apps

- Work collaboratively and provide innovative solutions to drive Workforce Enterprise Planning

- BPM/Agile
- Business Continuity/ Disaster Recovery
- Enterprise OIT
- Training and Development

#### **IT Recruitment Challenges**

Recently we have encountered difficulties in recruiting for senior technical positions. We are encountering up to 3-6 months or more on some of these critical positions. In addition to that, we are experiencing more senior-level employees retiring and not enough internal resources to promote.

We are investigating our internal processes and recruitment approaches to strive for better outcomes. Still, we are severely restrained with the inability to recruit in a flexible and agile manner required in the technical field. In order to be competitive, OIT Workforce Innovation team is working with OIT senior management to revamp career pathways and new job descriptions. We are also researching other states and best practices in the IT field.



## Key Areas – Strategy and Accomplishments

### *OIT Intern Challenge*

Last year, OIT created an ‘Intern Challenge’, where a group of our IT interns, with an industry mentor, were asked to research and create a recommendation for a business problem. The proposed solution involved a redesign of the recruitment process, updating the website, and rebranding to promote careers in technology.



The interns presented their work to the Governor in the summer

The interns recommended a cloud-based solution that is interactive with social media and modernized to attract qualified technical workers where they reside, online.

The new approach is:

- Automated
- Simplified
- Efficient
- Online
- Social Media

### *Intern Panel at Maine Digital Government Summit:*

Interns and their mentors from the State of Maine were invited to join a panel and talk about their experiences during the final session at the annual Maine Digital Government Summit, November 18. Other companies included Tyler Technologies and Unum.



OIT Mentor Brian Oliver and Intern Mitchell Ryan on the panel, with CIO Jim Smith wrapping up

## 2<sup>nd</sup> Annual OIT Tech Night for Aspiring High School Students

### Office of Information Technology Annual Tech Night

The Office of Information Technology (OIT) held its annual Tech Night on March 19, 2015. We bring groups of high school students together to show them how IT professionals use technology to support their customers. We show the students the variety of careers opportunities that are available in technology, including application development, project management, network engineering, and cyber security. They have an opportunity to practice with team building exercises using agile methodology, code to create viable solutions to business requirements, and they learn that there is no such thing as deleting files. Educators attended from colleges and universities and displayed information about the IT degrees that are offered right here in Maine.



## State-wide Communications Technologies – Broadband and Public Safety

### ConnectME Authority



#### Annual Report to Legislature:

[www.maine.gov/connectme/about/reports.shtml](http://www.maine.gov/connectme/about/reports.shtml)

The ConnectME Authority is a component unit of Maine state government whose mission is to facilitate the universal availability of broadband to all Mainers and help them understand the valuable role it can play in enriching their lives and helping their communities and businesses thrive.

Five years ago, 86% of the state had access to high-speed Internet service with an adoption rate of 40%. 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).

#### *\$80 Million Broadband Grant for Rural Maine:*

In 2015, the Federal Communication Commission (FCC) awarded an \$80 million Connect America Fund grant (\$13.3 million annually for six years) to FairPoint for the significant investment and expansion of broadband in Maine's rural communities. This is welcome and encouraging news for over 35,000 residential and business locations in Maine are eligible for funding.

From 2007 through 2014, the Authority has awarded 122 grants totaling nearly \$10 million through a process that solicits, scores, and awards bids from public-private partnerships.

In May 2015 the ConnectME Authority hosted Broadband Day at the State Capitol Hall of Flags. Broadband providers in Maine, as well as others who promote or otherwise enhance broadband, participated.

#### Duties of the Authority include:

- Establish criteria defining unserved and underserved areas;
- Promote use of broadband service;
- Support local and regional broadband planning;
- Support broadband investment;
- Facilitate state support of deployment of broadband infrastructure;
- Collect and disseminate information; Administer funds;

The ConnectME Broadband Authority consists of a board of seven [Authority Members](#), an Executive Director, Associate Executive Director, and a Program Director.



- **FirstNet™ mission** is to develop, build and operate the country's first nationwide broadband network dedicated to public safety.
- **FirstNet™ is an Independent Federal Authority** created in 2012 to oversee building, deployment, and operation of a National Public Safety Broadband Network.
- **FirstNet™ is a Cellular Data Network** intended to provide a seamlessly interoperable digital cellular service (initially for DATA only, not for VOICE) for all levels of government (Federal, State, County, Local, Tribal), and for all first responders (police, fire, EMS etc.).
- **Maine's Involvement — OIT / ConnectME Authority and Maine Emergency Management Agency (MEMA)** are the lead agencies for Maine.
  - **Rural.** One of the key goals of the FirstNet project is to ensure that service is provided in rural and underserved areas, not just urban locations.
  - **Public Safety Grade.** FirstNet™ will be built to public-safety grade standards using Long-Term Evolution (LTE) wireless technology, the most advanced available today.
  - **9/11 Recommendation.** FirstNet™ fulfills a key recommendation of the 9/11 Commission.
  - Maine is participating in the planning phases with the (Federal Government) FirstNet™ to identify, scope, and prioritize Maine's specific network needs.
  - The FirstNet™ plan went out to bid to ascertain the cost of building out the National Public Safety Broadband Network.

- When the total cost has been determined, FirstNet™ will present to each state **Governor** the cost of building out their respective state network; at which time the **Governor** will have 90 days to opt-in or opt-out of participation.
- The Act gives states the option to either allow FirstNet™ to build the network in their state using FirstNet allocated funds (opt-in) or to opt-out and build their own portion of the network that would be partially financed by federal grants.
- However, states can make that decision only after FirstNet™ has issued plans for network construction.
- Although it will be several years until **Governors** have to make the opt-in or opt-out decision, states that decide to build their own network will need to address a number of technical and financial decisions to FirstNet™ standards.
- The ConnectME Authority has been designated as the State of Maine contact for the State to begin planning for the nationwide public safety broadband network under the provisions of and a \$1,045,904 State and Local Implementation Grant Program (SLIGP) grant.
- The State's designated governance body is the Maine Interoperable Communications Committee (MICC).
- Maine Emergency Management Agency (MEMA) plans to update the Statewide Communication Interoperability Plan (SCIP) as part of SLIGP, and will use MICC representatives, a Tribal representative, the Maine Emergency Management Agency (MEMA), and the Maine Office of Information Technology as the primary vehicles for education and outreach to local jurisdictions.

For more information on FirstNet™ see <http://firstnetme.gov/>

## Statewide Radio Communications Network (MSCommNet)

**MSCommNet** is the **M**aine **S**tate **C**ommunications **N**etwork, the digital public safety radio communications network for Maine State Government Agencies, was commissioned in late 2014.

OIT developed and commissioned this unified statewide land mobile radio network for State law enforcement, public safety, and public service agencies.

**System in full use statewide:** February 6, 2015

**Project on budget:** \$57.4 million

### Radio Communications within Maine State Government Agencies

MSCommNet provides state-of-art land mobile radio communications for Maine State Government agencies:

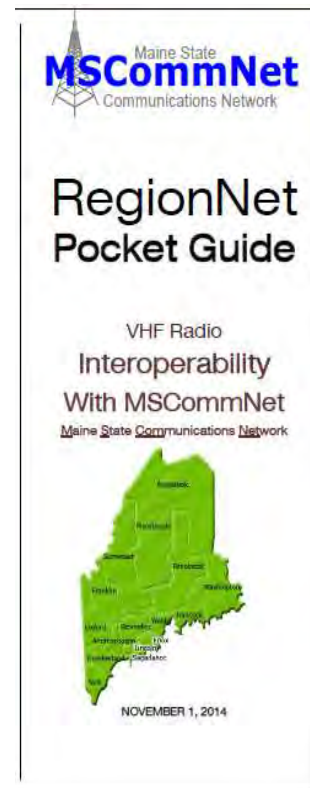
- Maine State Police/Department of Public Safety
- Game Wardens/Department of Inland Fisheries and Wildlife
- Forest Rangers/Department of Agriculture, Conservation, & Forestry
- Marine Patrol/Department of Marine Resources
- Maine Emergency Management Agency (MEMA) / Department of Defense, Veterans and Emergency Management (DVEM)
- Department of Environmental Protection
- and others, excepting MDOT

### Radio Communications between County & Local Agencies (& others) and Maine State Government Agencies

MSCommNet has handled 17,560,428 radio calls in its first eight months, averaging 66,000 calls per day for State agency customers. MSCommNet provides for interoperability with public safety partners through a

“RegionNet” service available for all municipal, county, tribal, adjacent State and Province, and Federal public safety agencies, and the Maine National Guard (DVEM). RegionNet coverage is provided through traditional VHF narrowband analog repeaters, listed in this [Pocket Guide](#) (online at MEMA).

For more on MSCommNet, see [www.maine.gov/mscommnet](http://www.maine.gov/mscommnet)



**MSCommNet** is a constellation of 40 tower sites throughout Maine, providing unified and modernized land mobile radio communications services to Maine State Government Agencies.



# Maine's Report Card = **B**

2014 Digital States Survey Analysis

**Maine is trending upwards ↑**

Source: [Center for Digital Government](#)

*Center for Digital Government's  
Digital States Performance Institute  
Biennial Survey*

*2014 Digital States Survey Analysis*

Excerpted from [e.Republic, Inc.](#) ©2014

The 2014 Center for Digital Government Digital States Survey response from the State of Maine continues to demonstrate progress and improvement over their 2012 submission.

Maine State Government is trending up demonstrating results in many categories.

Leadership is using modernization to change entrenched practices to prepare for more sustainable operations. Incentives for collaboration are in place. Measures used in key areas. Cuts tend to be made across the board.

## *Statewide Broadband Initiative*

Maine demonstrated a strong focus on the impact of broadband to the economic welfare of the state by indicating that it was critical to the Governor's overall economic development goals. They demonstrated that for a primarily rural state they had accomplished very strong broadband coverage (93%) and usage (75%).

## *Citizen Engagement*

Maine's highly rated website [Maine.Gov](#) with a large number of online services (1200) will result in strong citizen engagement. Also as an early adopter of responsive design they are actively engaging the mobile users.

## *Policy Alignment - "The Big Picture"*

Maine did a good job tying information technology investment and management to the top priorities of state government, with commitment to execution necessary to be a successful "Digital State." This success bodes well for the future.

## *Performance Benchmarking*

Maine demonstrated that their IT function is being well managed and demonstrates strong performance improvements against operating benchmarks.

## *Collaboration*

Maine provided good examples of collaboration. This is particularly important for a state that has a highly centralized IT function as there can be a tendency to not always totally engage the end-user organizations.

Maine's focus on Business Process Management (BPM) helps keep the emphasis on collaboration when undertaking IT application development projects.

## OIT Organization and Services

### Core Technology Services

Core Technology Services include network and voice services, radio operations, data centers, servers, desktop/ laptop computers,

and IT customer support for all 12,000 State employees in the Executive Branch.
























### [OIT Customer Service Catalog](#)

[www.maine.gov/oit/services/index.shtm](http://www.maine.gov/oit/services/index.shtm)

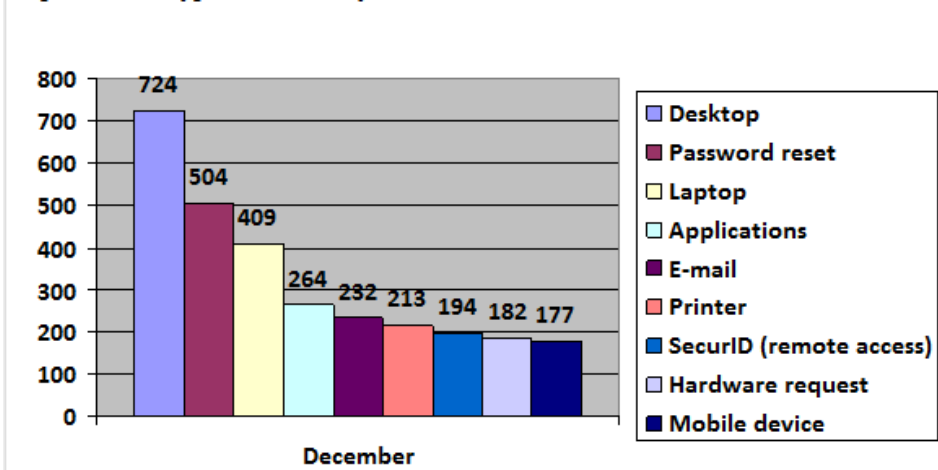
The screenshot shows the OIT Service Catalog website. At the top is a header with the text "OIT SERVICE CATALOG" and a background image of computer keyboard keys. Below the header is a search bar with the text "Search the Catalog" and a search button. Underneath the search bar are navigation links: "A-Z Listing", "Help", "Recently Added", and "Service Catalog Home". The main content area is a grid of service categories, each with an icon, a title, and a brief description:

- Application Development & Support**: Web Design & Development, State-Wide Applications
- IT Service Management & Continuous Improvement**: HelpDesk & User Support, IT Service Management
- Email, Messaging, Conferencing, & Fax Services**: Email, Secure Email, Messaging, Audio Conferencing, Web Conferencing, Fax Services
- Project Management**: Overview, Portfolio Management, Project management Training, Best Practices,
- Data, Voice and Radio**: Remote Access, Wide Area & Local Area Networks, Radio, Voice/Telephone Services
- Central Print, Copy & Printer Maintenance**: Central Printing, Copy Center, High Speed and Printer Maintenance Services
- Hosting**: Backup and Recovery, Storage, Database, Linux, UNIX, Virtual and Windows Hosting, File & Print
- OIT Performance Metrics**: Key performance metrics for OIT provided services.
- Risk Management**: Incident Response, IT Continuity Planning, Physical Security, Security Awareness Education
- Infrastructure**: Wiring Services, Application Monitoring, Internet Information and Web Services

## OIT Metrics/ Facts

	465 million	megabytes (465 terabytes) of data storage
	48 million	emails per year (inbound and outbound)
	2.2 million	intrusion attempts foiled (daily)
	65,000	customer support calls, 98% satisfied or highly satisfied rating
	48,000	“tickets” for service (annually)
	30,000	generic spam emails blocked (daily)
	16,000	network connections
	15,000	phone lines
	12,000	computers and email accounts
	7,000	SecurID (remote access) accounts
	2,908	users with Blackberries, iPhones, and other mobile devices
	2,625	mobile & portable radios
	869	servers (physical and virtual)
	600	applications systems (all Executive Branch agencies)
	600	facilities supported statewide with network access
	500	invoices processed (monthly)
	475	Oracle databases
	388	contracts managed
	200	wireless access locations (480 access points)
	100	projects in support of all agencies and enterprise systems
	40	mountaintop radio tower sites
	24/7/365	network monitoring
	24/7/365	business continuity / disaster recovery (BC/DR) management

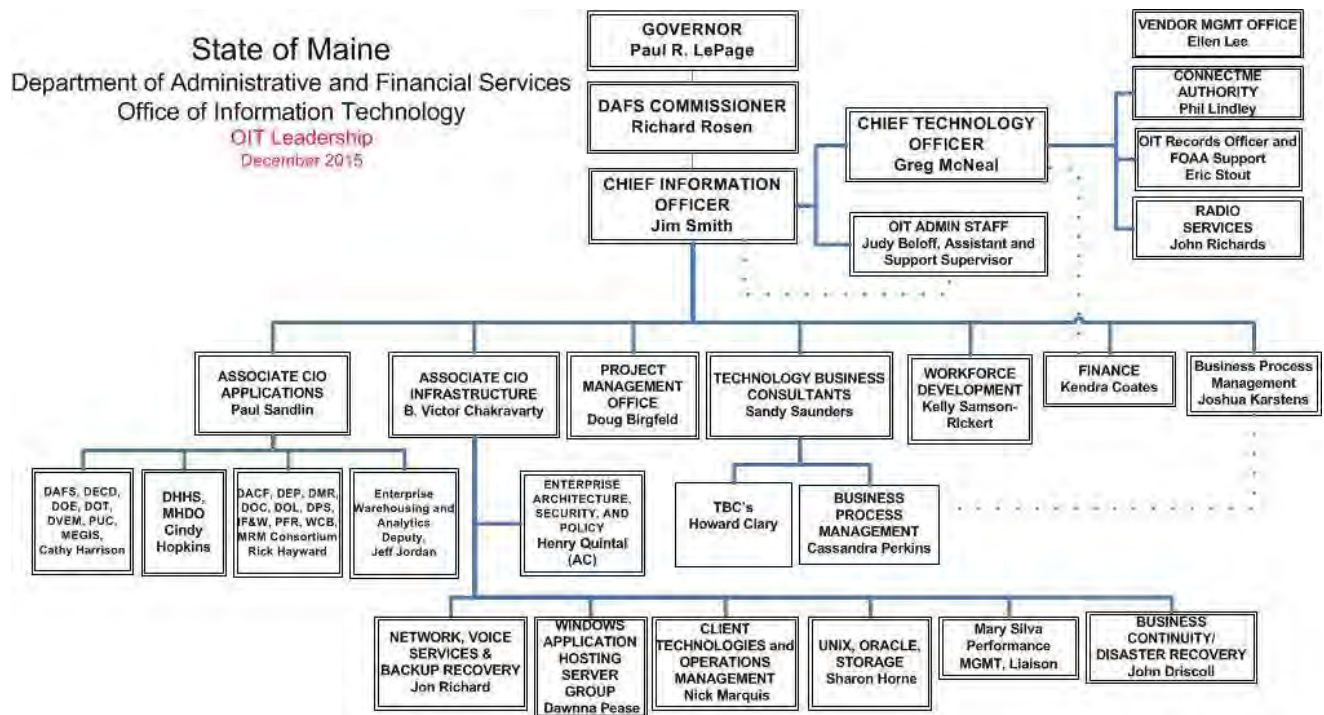
Top Problem Types Received by OIT Call Center for December



Top Problem Types Received by OIT Call Center for Sample Month



## OIT Organization Chart



### Chief Information Officer (CIO)

- Liaison to Governor's Office for all things relating to IT
- Liaison to Legislature and Committees
- Liaison to Judicial Branch and Constitutional Offices
- IT strategy/ direction-setting
- Enterprise architecture and security
- IT business relationship
- Communications and media relations (marketing)
- Policy
- Project management
- Business process management
- Represents Maine on National Association of State CIOs (NASCIO)
- Boards and Committees:
  - IT Executive Committee, Chair
  - CIO Council, Chair
  - GeoLibrary Board, Member

### Associate CIO for Applications

- Development and maintenance of all agency and enterprise applications (both custom-built and commercial software)
- State-wide strategic application vision towards common, integrated solutions
- Standardization of common tools and practices
- Operational budget for applications

### Chief Technology Officer (CTO)

- Represents CIO as needed
- Governance
- Financial management
- Firstnet (critical Federal-led project for nation-wide communications)
- Develop an Enterprise mobile strategy
- eGovernment (InforME and OIT)
- Research Federal technology grants
- OIT Billing project
- Production problem resolution and follow up
- Contract management
- OIT Administrative Staff
- Boards and Committees:
  - InforME Board, Chair
  - ConnectME Authority, Member (Phil Lindley)

### Associate CIO for CTS

- Oversees all OIT operations
- Management of the State's IT infrastructure (network, servers, storage, data centers, etc.)
- IT desktop support and customer service delivery
- Operational budget for core infrastructure services
- Strategic planning/ implementation
- Disaster Recovery / Business Continuity

## IT Executive Committee

The [IT Executive Committee](#) is charged with providing executive leadership, not only for agencies, but also for State Government as a whole, ensuring that the business needs and priorities of the enterprise are identified and satisfied.

[www.maine.gov/oit/about/committees/it\\_executive.html](http://www.maine.gov/oit/about/committees/it_executive.html)

**Chair: Jim Smith, Chief Information Officer**  
**Greg McNeal, Chief Technology Officer** Office of Information Technology  
Administrative and Financial Services

### Cabinet Departments (Executive Branch)

#### Governor's Office

Aaron Chadbourne  
Jonathan LaBonte

#### Administrative and Financial Services

Dave Lavway  
Doug Cotnoir

#### Agriculture, Conservation and Forestry

Courtney Marchelletta  
Henry Jennings

#### Corrections

Martin Murphy

#### Defense, Veterans and Emergency Management

Bruce Fitzgerald

#### Economic and Community Development

Denise Garland

#### Education

Brian Snow

#### Environmental Protection

Marc Cone

#### Health and Human Services

David Simsarian

#### Inland Fisheries and Wildlife

Bill Swan  
Tim Peabody

#### Labor

Christopher Boudreau  
Patsy O'Brien

#### Marine Resources

Meredith Mendelson

#### Professional and Financial Regulation

Anne Head

#### Public Safety

Major Chris Grotton

#### Transportation

Cindy Owings-Hutchison

#### Workers' Compensation Board

Paul Fortier

### Other Agencies

#### Public Utilities Commission

Harry Lanphear

#### State Archives (Secretary of State)

Tammy Marks

#### State Library

Janet McKenney

# National Association of State CIOs 2016 Priority List



## State CIO Priorities for 2016

### A. Priority Strategies, Management Processes and Solutions

#### Top 10 Final Ranking

1. **Security and Risk Management:** governance, budget and resource requirements, security frameworks, data protection, training and awareness, insider threats, third party security practices as outsourcing increases, determining what constitutes "due care" or "reasonable"
2. **Cloud Services:** cloud strategy, proper selection of service and deployment models, scalable and elastic IT-enabled capabilities provided "as a service" using internet technologies, governance, service management, service catalogs, platform, infrastructure, security, privacy, data ownership
3. **Consolidation/Optimization:** centralizing, consolidating services, operations, resources, infrastructure, data centers, communications and marketing "enterprise" thinking, identifying and dealing with barriers
4. **Business Intelligence and Data Analytics:** applying BI/BA within the enterprise, communicating the value, building expertise, delivering shared services, exploring big data, data analytics
5. **Legacy Modernization:** enhancing, renovating, replacing, legacy platforms and applications, business process improvement
6. **Enterprise Vision and Roadmap for IT:** vision and roadmap for IT, recognition by administration that IT is a strategic capability, integrating and influencing strategic planning and visioning with consideration of future IT innovations, aligning with Governor's policy agenda
7. **Budget and Cost Control:** managing budget reduction, strategies for savings, reducing or avoiding costs, dealing with inadequate funding and budget constraints
8. **Human Resources/Talent Management:** human capital/IT workforce, workforce reduction, attracting, developing and retaining IT personnel, retirement wave planning, succession planning, support/training, portal for workforce data and trends
9. **Agile and Incremental Software Delivery:** iterative design and incremental development of software solutions, allows for design modifications, prototyping and addition of new capabilities as part of the development process
10. **Disaster Recovery/Business Continuity:** improving disaster recovery, business continuity planning and readiness, pandemic/epidemic and IT impact, testing



## State CIO Priorities for 2016

### B. Priority Technologies, Applications and Tools

#### Top 10 Final Ranking

1. **Security Enhancement Tools:** continuous diagnostic monitoring (CDM), digital forensics
2. **Cloud Solutions:** software as a service
3. **Legacy Application Modernization/Renovation**
4. **Data Management:** master client index/master data management, information exchanges (e.g., health, justice, transportation, environmental)
5. **Business Intelligence (BI), Business Analytics (BA):** applications, big data, data analytics
6. **Identity and Access Management:** technologies and solutions
7. **Mobile Workforce:** technologies and solutions
8. **Virtualization:** servers, desktop, storage, applications, data center
9. **Networking:** voice and data communications, unified
10. **Document/Content/Records/E-mail Management**

## OIT consolidation – before and after...

Before OIT - illustrative



OIT Data Center in 2015 - Actual

