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Office of Information Technology

2020

Annual Report

maine

DEPARTMENT OF ADMINISTRATIVE AND FINANCIAL SERVICES · EST. 1931 ·

Contents

The Office of Information Technology strives to be a client-centric organization cultivating positive relationships and growth to better serve State of Maine agencies and Maine citizens.

Executive Summary

Over the past year, the Office of Information Technology has made monumental strides in becoming <u>the</u> trusted and preferred technology provider for all State of Maine Executive Branch agencies. Ultimately, our goal of making technology secure, accessible, and efficient in supporting our agency partners who deliver essential services for the citizens of Maine is well on its way to realization. Delivering excellence in information technology (IT) services and developing strong, trusted partnerships has required a cultural shift, and we have collectively cultivated an environment of collaboration, shared innovation, and client-centric service.

While much progress has been realized, the Office of Information Technology knows that this level of cultural shift requires constant improvement. We are committed to creating a new future, building on our previous work with an adaptive leadership approach. Our vision has a future in which:

→ *Technology challenges are addressed collaboratively with our customers and partners.*

→ *We lead the way in bringing value added technology solutions to the table.*

→ *Our staff take great pride in their work which directly benefits Maine citizens.*

→ *We have clear leadership alignment and a shared decision-making framework.*

→ *We have the flexibility to offer proactive, expert technology advice and shared solutions while providing a superior customer experience for our business partners.*

To this effort, the Office of Information Technology has adopted four core values to direct, support, and focus our service delivery which impacts everything we do. Our core values of Customer Focus, Accountability, Responsiveness, and Empathy (CARE) serve as our guiding principles to foster a positive culture that is reflected in our customer interactions and daily decisions.

The 2020 Office of Information Technology Annual Report reflects our path of transformation by focusing on areas of achievement over the past year, as well as areas in which we must continue to improve and contribute. In this report, we have taken a self-reflective stance involving both our recent accomplishments and future goals of being as we commit ourselves to take the incremental steps necessary to transform the way we do business.

" *We do IT because we CARE* "

About Us

The Office of Information Technology as part of the Department of Administrative and Financial Services is a group of dedicated State employees and contractors striving to provide the highest quality services to our clients to ensure the public is served. We are a centralized, shared-services organization that directly delivers a full range of IT support and services to Executive Branch agencies and provides selected IT services to the Judicial Branch and the three Constitutional Offices: The Secretary of State, Attorney General, and State Treasurer. We are also responsible for the operation and maintenance of the State's public-safety radio network.

Office of Information Technology roles and responsibilities are legislatively authorized by statute: 5-M.R.S. Chapter 163: Office of Information Technology.[1] The roles and responsibilities of the Office of Information Technology and the Chief Information Officer include the complete spectrum of IT oversight and management for Executive Branch agencies and selected parts of the spectrum throughout State government. Office of Information Technology services include providing:

- Best business practices and project management (§1973);

- IT communications and coordination across State government (§1973);

- IT leadership and vision (§1973);

- Policies and standards (§1973);

- Strategic planning (§1974);

- Training and development programs for State employees (§1974);

- Approval of acquisition and use of equipment (§1974); and

- High-quality, responsive, cost-effective information technology services (§1981).

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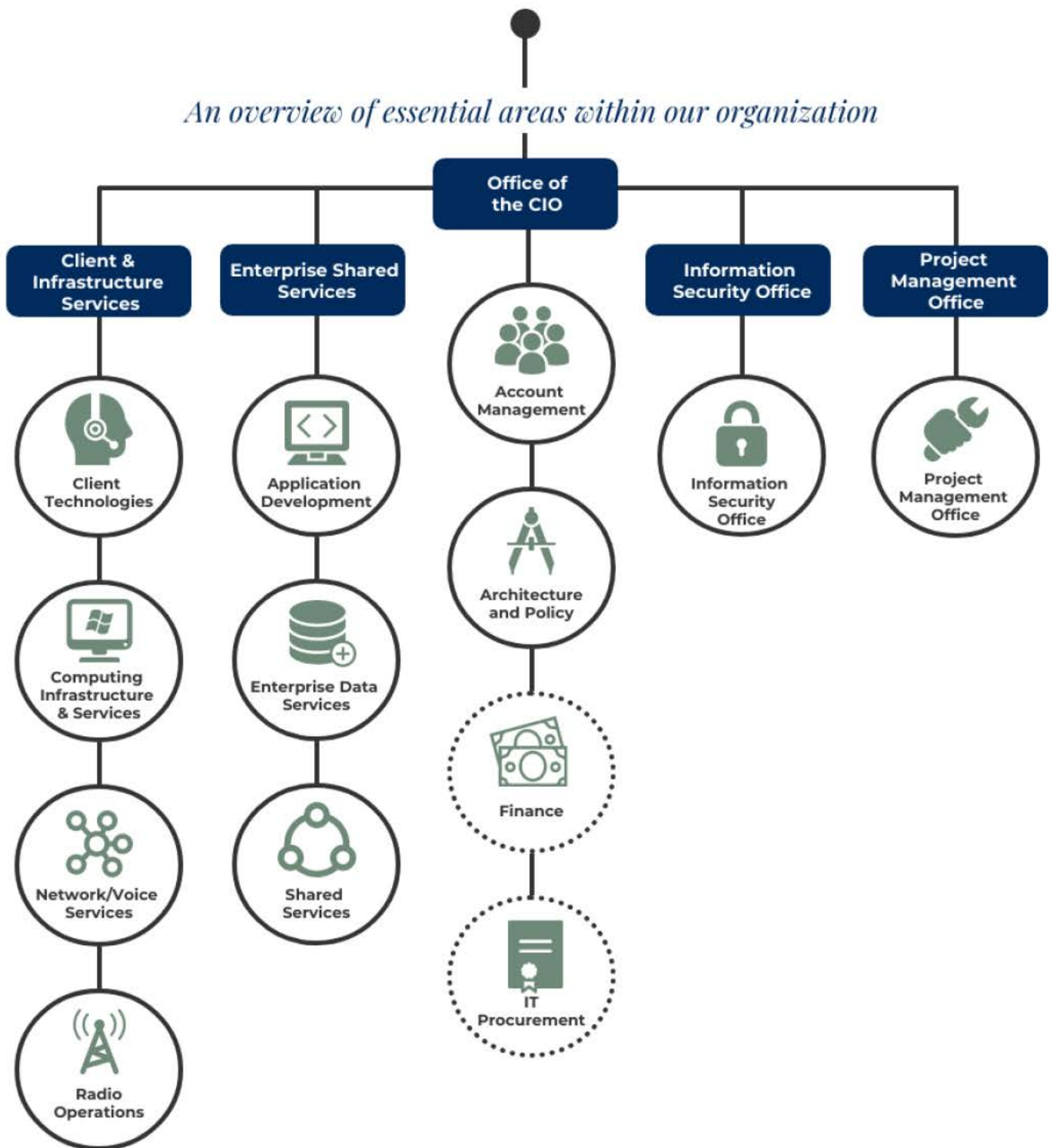Digital States Survey grade earned by Maine in 2020.

Our grade reflects that standard good government practices were applied in all aspects of state operations, governance, and administration.

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[1] http://legislature.maine.gov/statutes/5/title5ch163sec0.html

Teams within the Office of Information Technology

An overview of essential areas within our organization

Office of the CIO

Client & Infrastructure Services
- Client Technologies
- Computing Infrastructure & Services
- Network/Voice Services
- Radio Operations

Enterprise Shared Services
- Application Development
- Enterprise Data Services
- Shared Services

Office of the CIO (center)
- Account Management
- Architecture and Policy
- Finance
- IT Procurement

Information Security Office
- Information Security Office

Project Management Office
- Project Management Office

- **Client & Infrastructure Services**
  - *Client Technologies* supports the daily technology needs of agencies by providing client devices and help-desk services to facilitate productivity and ease of use.
  - *Computing Infrastructure & Services* hosts 800 agency systems on 600 servers. It provides foundational enterprise services such as Microsoft Teams, email accounts, data backup, and file storage that are used by nearly every employee.
  - *Network/Voice Services* maintains, manages, and protects all communication through State data networks, including voice and wireless networks.
  - *Radio Operations* supports all two-way radio communications and designs and builds emergency communication systems for Public Safety vehicles.

- **Enterprise Shared Services**
  - *Application Development* teams support the development, implementation, and maintenance of approximately 800 business application systems.
  - *Enterprise Data Services* supports agency data needs by managing more than 300 active servers and relational databases and by providing analytic services.
  - *Shared Services* consolidates business and technical operations for enterprise applications in order to standardize processes and eliminate redundancies.

- The **Information Security Office** protects State information systems and assets by disseminating and implementing security policies, standards, and controls. It also responds directly to threats and assists with recovery from cyber intrusions.

- **Office of the Chief Information Officer (CIO)**
  - *Account Management* supports agency partners by providing consultation to ensure collaboration and alignment of business needs with IT solutions.
  - *Architecture and Policy* collaboratively creates, maintains, and governs the enterprise technology vision and related standards to facilitate a shared culture and consistent, secure processes.
  - The *Finance* team is an example of our shared partnerships. The team does not directly report to the CIO but does provide vital business functionality through rate setting, budgeting, processing invoices, and providing financial-customer support.
  - *IT Procurement,* another example of our shared partnerships, oversees IT-related service contracts and maintains long-term vendor relationships to help achieve State goals related to policy, performance, expenses, and risk management.

- The **Project Management Office** defines and maintains project management best practices and introduces economies of repetition into the execution and support of technology projects across the State of Maine. The Project Management Office is also charged with overseeing and managing the IT service portfolio.

Accomplishments and Goals

Over the past year, the Office of Information Technology has engaged in projects to modernize our assets, improve security and performance, and provide better services for our agency partners and the public. In our 2019 Annual Report, we identified eight areas for improvement in 2020. Although the pandemic set back several initiatives, the Office of Information Technology was successful in making major accomplishments toward our identified goals. The sections below highlight the progress made over the past 12 months and the work we plan to continue throughout 2021.

Security

The Office of Information Technology is committed to ensuring the security of State of Maine information assets. As threats continue to become more sophisticated, it is vital that we continue adapting to proactively counter those threats. We constantly see attack attempts, and, over the past year, the Office of Information Technology has seen a massive onslaught in cyber-attack volume and complexity, as bad actors attempt to exploit pandemic-related fears and remote workers.

In 2020, the Office of Information Technology, after early pre-COVID supplemental fiscal support from our Legislative partners, successfully initiated significant progress in strengthening our architecture infrastructure and security posture while protecting Maine State assets. Critical security initiatives were further improved and accelerated through the leveraging of CARES funding while supporting a rapidly deployed remote workspace. To continue this trajectory on our journey of transformation, we need to further develop these foundational architectural, structural, and security improvements.

Accomplishments from our Goals

Information Security and Risk Management Strategy. The Information Security Office developed a security and risk management strategy that allows the State of Maine to plan, build, and operate a measurable, evidence-based cyber program that protects the State against emerging cyber threats. This work establishes a holistic foundational approach embracing an information security perspective that ensures technology-based initiatives are informed by understanding security gaps.

Comprehensive Risk Assessment. A comprehensive security and risk assessment was conducted against the State to identify and understand existing security gaps. This assessment included a formal enterprise security maturity assessment to determine the capability and progression of our security program. The results of this assessment will enable us to measure and make direct improvements to security programs, thereby

ensuring that thorough, effective, and repeatable processes are in place as part of our organization's overall operational infrastructure.

Security Partnerships. The Office of Information Technology has developed partnerships with Federal and local governments. Working with the National Association of State CIOs, the Office of Information Technology advocated at the Federal level for additional funding to support state and local cybersecurity efforts and initiatives.

Goals Moving Forward

Resilience and Threat Response. Robust security monitoring, response processes, and security technologies enable the rapid detection, containment, and recovery of cybersecurity incidents. The drastic rise in volume and complexity of cyber-attacks and attempts requires that the Office of Information Technology be properly positioned to identify and remediate attacks against our State of Maine assets. It is imperative that we remain agile to adapt to changing circumstances. Through formal government partnerships, synchronization of multidisciplinary teams, proper security governance, and adaptable funding sources, we strive to become a leader in security resilience.

11,071

devices used, supported, secured, and maintained for State users.

Risk Management. The Information Security Office is committed to proactively managing security risk to enable accurate articulation of our risk posture and identify our relationship to established parameters. We are partnering with key stakeholders to identify and establish the right level of coverage to support incident response, remediation, and business disruption protection. Through this work, the Office of Information Technology will establish a framework with which to make informed decisions and identify and prioritize security initiatives against emerging risks.

Statewide Leadership. The Office of Information Technology is planning to develop partnerships with local governments and businesses throughout Maine to foster improved knowledge and understanding of cybersecurity issues. Building strong partnerships allows for continuous security strengthening while balancing business needs, risk tolerance, and statutory, regulatory, and contractual requirements. The Office of Information Technology aims to lead the way for cybersecurity preparedness and capabilities throughout the state.

Strengthened Security Architecture. The Office of Information Technology is working to create an architecture and security posture capable of adapting to digital business initiatives and constantly evolving threat landscape to provide modernized protections and best secure State assets. It is critical for us to implement industry-standard security

programs, tools, and services to streamline protections and reduce our vulnerabilities. Maine citizens rely on, and trust, the State to provide and maintain the most secure applications and systems possible to protect their highly sensitive and personal data.

Radio Operations

The Radio Operations team lives by the guiding principle that "someone's life depends on what we do". As the team is responsible for multiple critical radio and communication system assets, including reliable radio operations for our Public Safety and law enforcement partners, this fundamental code is imperative to assure 100 percent continuity of radio operations. Serving as the backbone for all agency radio traffic within the State of Maine, it is vital that we continue to proactively support all users needing reliable and secure radio services every hour of every day.

Maine State Radio Towers Map

Accomplishments from our Goals

MSCommNet. The Maine State Communication Network System provides a statewide radio frequency-based voice and data communication system. This system has been used for lifesaving search and rescues, forest fire abatements, high speed criminal pursuits, arrests, and the capturing of Cpl. Eugene Cole's killer. As part of our investment in keeping this vital system current, we deployed, ahead of schedule, the new BeOn (radio communications over cellphone or laptop) technology enabling State Police and specialty teams to improve situational awareness by connecting their laptops and cell phone to MSCommNet. This technology directly supports the security and safety of the capitol complex, the Governor, staff, law enforcement, and the public.

Goals Moving Forward

LMR and LTE. Radio Operations has developed a plan to keep our system current, moving towards a "converged network" of Land Mobile Radio (LMR) and Long-Term Evolution (LTE). This converged network will increase the effectiveness and safety of personnel by providing a dedicated, wireless broadband infrastructure capable of offering critical communication services, including voice, data, and video. We are actively transitioning from the current vendor proposing a massive cost increase and reduction in services to an adapted approach to ensure the best interest of the State is maintained. To this effort, the Office of Information Technology will be adding a balanced staffing mix, avoiding increased costs by assuming the support, control, and maintenance items to in-house staff while partnering with four Maine-based companies as part of our initial roll out of our self-support model.

Client-centric Service

Being client-centric means providing a positive experience for and collaborating successfully with our agency partners to ensure the public receives exceptional State service. The Office of Information Technology has implemented many initiatives to create open, trusting relationships that facilitate successful partnerships and outcomes.

Accomplishments from our Goals

Organizational Development. The Office of Information Technology has completed a 15-month effort, partnering with an organizational development firm, to transform our focus to promote and foster a service-oriented culture. As part of this work, a survey was distributed to collect baseline metrics for how our agency partners rate the level of IT services received. Business acceleration teams were then formed to include our employees and business partners focused on building a shared vision and transformation. Implementation teams who translated the visions into actions will continue this work into 2021, including a follow-up survey later in February to capture and measure our continued progress with our agency partners against the 2020 baseline.

Statewide Training Opportunities. The Office of Information Technology has heard from our agency partners that IT training is a major need and we implemented two programs in 2020 to fulfill this need. Lunch and Learn programs were delivered in one-hour, monthly sessions aimed at providing training, tips, tricks, and information on a variety of technology tools available. In addition, we have released several trainings on Microsoft Suite applications that are used daily throughout the State. This availability and use of training represent a major accomplishment as historically we have fallen short in meeting statutory requirements to provide IT training programs to State employees. With these long-term initiatives, the Office of Information Technology is empowering agency partners to increase their value of and gain efficiencies in our broad technology toolset.

Goals Moving Forward

Adopting CARE Values. Through our organizational development work, we have adopted four core values: Customer Focus, Accountability, Responsiveness, and Empathy, which we refer to collectively as CARE values. These core values serve as guiding principles for how we conduct daily business. To implement these values, we have taken a cascade approach, with leadership demonstrating, communicating, discussing, and recognizing these values and their contribution to the success of our client-centric service model. As we move into 2021, our values will continue to be emphasized and incorporated into all aspects of our IT service delivery.

C	Customer Focus
A	Accountability
R	Responsiveness
E	Empathy

Application Approach Modernization

The Office of Information Technology recognizes the need to offer expert technology advice in the IT decision-making process. We must possess the flexibility to move resources to support changing needs, be resilient as needs adjust, provide innovative solutions that have a faster time to implement, support ease of scalability, mitigate risk, and be effective, sustainable, and supportable in meeting and aligning both business and Office of Information Technology strategies and core values. Over the last three months, the CIO and members of IT leadership have focused on modernizing our application stratgey to identify, align, select, approve, monitor, and support investments in IT assets across all Executive Branch agencies.

The Office of Information Technology's renewed focus includes modernization of the following imperatives, which are discussed in more detail throughout the report:
- Governance
- Cloud strategy
- Staffing, workforce, and organization
- Development practices, support, and methodologies

Accomplishments from our Goals

Cascading Alignment. In late 2020, Office of Information Technology senior leadership conducted application alignment meetings to cascade the message to all levels of our organization. These meetings were intended to align the organization on the case for change, to build a guiding coalition to lead the transformation, and to identify areas of missed opportunities. Leadership is currently collecting feedback from all staff members and will work to incorporate ideas into the final application strategic plan.

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New Technology solutions were vetted, enabling State users to explore new IT tools to best serve Maine citizens!

Goals Moving Forward

Strategic Plan. Over the next several months, we will work to meet the imperatives through a structured timeline, action plans, outcome measurements, and impact monitoring. We will create and distribute for key stakeholder and decision-maker input, a draft Strategic Plan with a final draft plan to be adopted by year end. The Office of Information Technology understands that this work will require a strong resolve, diligence, and dedication. We are committed to completing this work and are excited about the possibilities it brings to the Office of Information Technology, our agency partners, and the future of State IT.

Partnerships

The Office of Information Technology is committed to creating collaborative partnerships with agencies and vendors. This initiative is vital for developing a true client-centric culture. Over the past year, we have worked closely with all our partners to incorporate feedback and create transparent, open, and collaborative working relationships.

Accomplishments from our Goals

Agency Engagement. The Office of Information Technology has redesigned our leadership model by bringing business partners to the table as part of the IT Leadership Council. Agency partners now actively contribute to IT decision making, which was critical to our collective, successful response to the pandemic. This model has brought diverse perspectives and expertise to the governing process while strengthening our relationships with agency partners through a transparent and collaborative process.

Agency Partnerships. The Office of Information Technology has focused efforts to break down operational silos and create a single, seamless organization that best serves our agency partners and, ultimately, the people of Maine. Through improved methodologies and workflows, we have begun to foster alignment, ownership, and transparency among our partners and developers. In one area, documented processes were developed to outline operational relationships, procedures, communication, and remediation practices. Collectively, these initiatives have improved working relationships, enhanced the technology lifecycle, and have enabled us to provide a much improved customer service while delivering high-quality software.

State Partnerships. Application teams are collaborating with other New England states to share application code and databases. We have a verbal agreement to acquire a copy of the Massachusetts Food Safety Modernization Act system and are exploring sharing our Case Management System application with New Hampshire. Developing and sustaining partnerships with New England states enables all involved to implement well-built, functioning systems at an economical price for State budgets and citizens.

Goals Moving Forward

Strengthening IT Service Management. One core purpose of any information technology organization is to consistently deliver reliable technology services that enable agencies to, in turn, provide reliable services to their clients. The Office of Information Technology has acquired an IT service management software product that will provide a critical framework for strengthening service-management processes throughout the enterprise. Fully implemented, this product will result in more efficient delivery of services and a consistent and reliable response to requests and incidents.

Finance

In the 2019 Annual Report, the Office of Information Technology identified several areas for financial improvements. However, with the unexpected absence of a Finance Director, we were unable to make the progress we had anticipated. Looking forward to 2021, we are committed to making major strides toward solid fiscal stewardship, including identifying, exploring, and remediating shortfalls; meeting the needs of our agency partners; and balancing the need for additional investment.

Accomplishments from our Goals

Finance Director Partnership. In early 2020, our Finance Director accepted a role within a different State agency. The loss of this position caused a major set-back in our ability to achieve our financial goals. The position was filled in August through a collaborative recruitment effort between the Office of Information Technology and the Division of Financial and Personnel Services. We are now working to refocus and realign ourselves with the financial goals we are committed to accomplishing.

Goals Moving Forward

IT Services Budget. By FY21, IT services are projected to account for only 1.4 percent of the total State budget. Nationally, the average allotment for IT services is increasing with the 2018 average at 4 percent for government entities.[2] IT service funding is an investment that provides value through efficiencies, secure assets, and reduction in technical debt.

Reducing Costs. In 2019, the Office of Information Technology began to redesign and reevaluate our spending habits to reduce costs wherever feasible. The absence of a dedicated Finance Director providing oversight of this initiative, MaineIT Leadership teams continue to work in close collaboration with the DAFS Financial Service Center towards these goals while holding decision makers accountable for operating within their individual budgets. Our partnership with the Service Center Finance team is critical to ensuring solid fiscal stewardship.

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[2] https://www.gartner.com/en/newsroom/press-releases/2017-04-25-gartner-survey-finds-government-cios-spend-21-percent-of-their-it-budget-on-digital-initiatives

Workforce and Talent

Hiring for a technical workforce is a persistent challenge. There is an inadequate supply of qualified individuals in the area, especially for certain specialties, and government salaries are frequently not competitive with those of the private sector. This is coupled with a low financial commitment to training that hampers growth within our workforce. While these efforts were significantly inhibited with the pandemic, we have not lost sight of this goal.

Accomplishments from our Goals

Training Platform. Keeping IT employees current with technology training and advancements is a continuous and expensive challenge. To provide relevant and modern training, the Office of Information Technology has partnered with a 24x7 online learning platform vendor to provide an intuitive training experience for thousands of technology topics. A license to this platform was provided to every Office of Information Technology employee at a fraction of the cost for a single "in-person" training session. In partnership with the Bureau of Human Resources Talent Management team, seeking the resources to provide MaineIT employees access to trainings they need will ensure a knowledgeable workforce, capable of implementing modern technologies and services.

Goals Moving Forward

Pipeline Approach. In the past, the Office of Information Technology has partnered with local universities to offer internship opportunities. Many of our current IT staff started as interns, enjoyed the environment, and wished to stay. To reestablish our internship program, we have created and filled, a formal Internship Manager role. This role will work with local universities to attract computer science and cybersecurity majors who are interested in interning with the State. This goal, originally identified in 2019 for completion in 2020, was unfortunately set back due to the pandemic, but our commitment to this critical pipeline initiative remains.

Application Development Staffing, Workforce, and Organization. Our ability to attract and retain a modern workforce of IT talent is a constant challenge. With our current skillset requirements heavily focused on legacy knowledge and applications, coupled with an inflexible staffing model and limited opportunity for the exploration of modern technologies, the challenges are only exacerbated. As another key focus area in our overarching initiative of a modernization strategy, the Office of Information Technology is developing a plan to better attract and retain top IT talent in State government that will carry us into 2021 and beyond. This work will enable us to offer modern technology solutions, skillsets, and career opportunities to meet our customers' requirements for speed, flexibility, quality, and security.

Innovation

The Office of Information Technology strives to be an innovative partner for our customers. It is critical for us to maintain pace with advancements to proactively provide our clients with services they need. As technology experts, we must adopt and champion emerging technologies beneficial to State government. To keep up with rising expectations and provide technological solutions, we must be able to flex to deliver core services and introduce new processes, tools, and solutions. A solid funding model is a basic building block of organizations that have made this transformation work. It is critical to the success of our technology deployment, infrastructure, and support.

Accomplishments from our Goals

Innovative Applications. Over the past year, our teams have utilized available technology tools to implement innovative, cost-effective, and efficient systems to support our agency partners in their missions. These teams have collaborated to implement a system to passively collect airport runway traffic data based on radio signal interception, to develop a small application to dispatch investigators to fire scenes, and to create an application to process online payments. It is vital that all innovative ideas and solutions be recognized and celebrated within our organization as a critical step in fostering a culture that fully embraces innovation.

Goals Moving Forward

Cultivating a Culture of Innovation. The Office of Information Technology is committed to our approach of innovative service delivery and critical building blocks have been established to support the foundation of our evolution to

In the past 90 days, Microsoft Teams has facilitated...

78,000 meetings

4.8 million messages

840 million minutes of video

740 million minutes of video

innovation. Though our progress toward becoming a leader for innovation didn't advance as intended in 2020, we strive to be state-of-the-art in our IT services and approaches and agile enough to adapt as rapidly as technology and business processes change. Our client's ability to provide their best services relies on our ability to be proactive in our approach to technology and services.

Development Practices, Support & Methodology. As one of the four key pillars to our application modernization initiative, leadership is collaboratively creating a strategic plan that will guide us in resolving inconsistencies in our application practices, support, and methodology. By eliminating variation and dismantling our rigid, siloed support structure, the Office of Information Technology will be best positioned to embrace opportunities; encouraging and fostering innovative thinking to solve technology needs and provide an award-winning customer experience.

Digital Accessibility

Maine citizens and employees rely on digital, state information and services. These resources must be accessible to the largest audience possible, including individuals with disabilities, who make up about 16 percent of Maine's population. Through the collaboration and implementation of policies, standards, procedures, outreach, and awareness, the Office of Information Technology took great strides in 2020 to realize our vision of making state government web resources accessible to every Maine citizen.

Accomplishments from our Goals

Awareness. Increasing the awareness of accessibility and its importance for Maine citizens is critical for inclusive digital accessibility. Through the development of Accessibility Guidelines and Statewide Newsletter, the Office of Information Technology, in collaboration with the Information Technology Accessibility Committee (ITAC), has increased accessibility awareness throughout state government. We have seen a significant increase in the number of requests for accessibility guidance as the importance of proactive accessibility is realized.

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Waivers processed in 2020. A formal waiver process ensures risk management and compensating controls are implemented to best protect state assets and prevent lawsuits or regulatory fines.

Partnerships and Collaboration. The Office of Information Technology has strengthened our partnership with and support of the ITAC. Through this involvement, we have built critical partnerships with committee members who have a wide range of knowledge, and vested interest in digital accessibility. These partnerships have led to greater communication and wider collaboration in our overall digital accessibility efforts.

Goals Moving Forward

Digital Accessibility Strategic Plan. The Accessibility Team has finalized, and received approval for, the five-year Digital Accessibility Strategic Plan. Designed as our roadmap, this plan is being implemented to support 10 digital accessibility goals designed to realize our vision of making State of Maine digital information and services available to, accessible to, and usable by every Maine citizen. As part of our strategic focus going forward, our teams are collaborating with agency partners to develop an overarching accessibility site to serve as a central location for digital accessibility resources.

Multi-State Digital Accessibility Collaboration. As part of the Maine-initiated Multi-State Digital Accessibility Collaboration, the Office of Information Technology Accessibility Team is working to expand our outreach to and collaboration with other states. This work involves close multistate collaboration efforts to develop a strategy to engage all involved to present consistent accessibility requirements to vendors.

Cloud Transitions

Cloud technologies as an approach to service delivery have blossomed throughout the IT field, due to their ability to provide a more stable, flexible, and secure offering, coupled with more predictable, annualized expenditures. The details of every cloud engagement must be examined, and we have adopted a cloud-smart strategy to evaluate each opportunity for cost, security, service, integrations, and data recovery. However, even with a stable cloud-smart philosophy, more work is required to ensure cohesiveness when moving into the cloud, including solid professional development strategies enabling us to provide informed guidance to agencies on cloud choices and strategies.

Accomplishments from our Goals

Cloud Governance. The new paradigm for delivery of services requires an updated approach to governance, IT architecture standards, and policies. We have developed governance models to make offerings available from industry-standard cloud environments including Amazon Web Services, Salesforce, and Microsoft Dynamics.

Enterprise Cloud Applications. We have continued to migrate a select number of legacy systems to cloud offerings. Following a cloud-smart approach, recent successful migrations include DAFS Analytics and the Meditech Electronic Medical Records system. Two large cloud projects scheduled for cloud implementations include a State-based Marketplace and Integrated Online Services. These transitions promote greater cost efficiency, increased user experience and application flexibility.

Goals Moving Forward

Cloud Strategy. The Office of Information Technology is developing a strategy to support a multi-cloud strategy that will enable us to offer tailored solutions leveraging industry best practices of scalability, security, and speed. Our modernized cloud strategy will include developing documented decisions to best align with statute, supporting application modernization, and enhancing IT transparency with partners. Developing solid cloud governance program provides clarity and offers faster time to market for cloud solutions that meet agency needs and align with strategic technology initiatives.

Child Welfare Information System. As an example of a modern, cloud approach, The Office of Information Technology has partnered with the Department of Health and Human Services to replace the legacy child welfare system. The next-generation-solution is being built and hosted in the cloud to provide modular, reusable, service-based functionality to automatically deliver on Federal reporting requirements. While the pandemic has created unique challenges for a project of this magnitude, the team has worked diligently and innovatively to ensure this effort remains on schedule.

Governance

IT governance encompasses the processes by which organizations are directed, controlled, and held accountable. The practice of good governance focuses on documented boundaries and repeatable processes to align objectives and promote responsiveness, objective decision making, resource balancing, risk management, and accountability. Excellence in IT management and service delivery can be achieved through adoption of and adherence to structured, proven governance principles and practices. To strengthen trust and support collaboration, the Office of Information Technology is working closely with our partners to continue the refinement of a collaborative system of governance.

Accomplishments from our Goals

IT Project Governance. Consistent, reliable governance is critical to the long-term success and return on investment for large IT projects. Over the past year, the Office of Information Technology has placed a renewed focus on proper governance and alignment for critical IT projects, establishing governance committees consisting of key decision makers, stakeholders, and subject matter experts. These teams have assumed a vital role in project design, implementation, and interface to align the State with industry best practices and to ensure reliable, secure systems that accurately meet customer expectations, business needs, and budget are put into place.

140 E-discovery cases were supported including 82 Freedom of Access Act (FOAA) requests, 52 litigation cases, and 6 audits/investigations. These requests supported most Cabinet-level departments and several smaller agencies.

Goals Moving Forward

Governance Modernization. Proper IT governance is critical to ensure a consistent, aligned, and repeatable framework is established to inform decisions and ensure business objectives are accurately accomplished. As part of our larger modernization efforts, the Office of Information Technology has developed a plan to create a standardized rubric for application selection governance, which will enable us to fulfill our statutory responsibilities, while better understanding agency goals and maintaining alignment with our data architecture and policies.

Maine Service Bus. The Maine Service Bus is a new offering for data governance, integration, and service orchestration. This platform exists between business applications and reduces the complexity of system integration and provides for reusability of existing interfaces. While currently in use in only a limited number of applications, use of the Maine Service Bus is expected to expand exponentially over the coming years as a lower-cost option for state application data governance and integration.
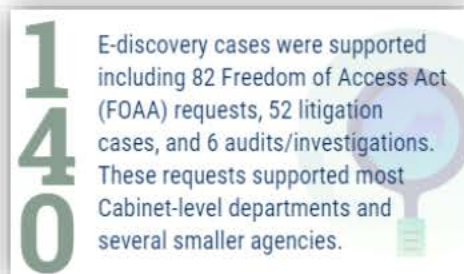
Pandemic Response

The Office of Information Technology assumed a critical role in the State's pandemic response. The summaries below encompass some of the work completed in our efforts to assist all state partners quickly and securely transition to remote and limited on-site work, while keeping the government operational and provisioning vital pandemic-related services for the citizens of Maine.

Maine Center for Disease Control and Prevention (Maine CDC) Partnership. Throughout the pandemic, the Office of Information Technology has worked in close collaboration with the Maine CDC to support their critical and timely COVID-19 initiatives. Nearly every team within the Office of Information Technology has provided support to implement technology solutions vital to the Maine CDC's pandemic response. This work has included projects to implement:

- A data sharing agreement for the reporting of COVID-19 test results;
- Electronic Test Order and Result Portal at the State Testing Lab;
- Electronic ordering and reporting of COVID-19 testing results statewide;
- Contract tracing, investigation, monitoring, and reporting programs;
- Devices, accounts, and resources for more than 100 additional staff members;
- Nurse availability coordination through 211;
- Immunization data sharing agreements for vaccine distribution; and
- Analytical and monitoring tools for reporting.

Network Support. The Network Services team responded to several critical requests during the pandemic. This work included setting up appropriate network equipment and configurations for the DHHS COVID Testing Lab[3], two new Department of Labor (DOL) Call Centers, and multiple warehouse and storage facilities for the distribution of personal protective equipment throughout the state. These unanticipated projects were completed quickly to provide critical physical and wireless networks that continue to support our agency partners and Maine citizens during the pandemic.

Using CARES funding, the Client Tech Team assembled 84 video carts to facilitate collaboration between remote and in-office employees at many agency partner locations. – December 2020

Remote Access. The Network Security team responded quickly to install Remote Access software on all state devices. Their rapid response made it possible for state employees

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[3] https://www.newscentermaine.com/article/news/health/coronavirus/augusta-mobile-covid-19-testing-lab-now-operational/97-967112b3-0ff3-4eca-b75d-1ba69f054b31

who were able, to quickly pivot to a work-from-home model. With a record setting number of users relying on a service never intended for such heavy use, performance issues arose. The Office of Information Technology monitored the performance degradation and worked aggressively with the vendor to remediate the problem, without success. With no available remediation, we adapted our approach and acquired CARES funding to implement a substantial and successful security and performance upgrade with a different remote access vendor.

Remote Support. As many employees adjusted work arrangements, our help desk experienced call volumes that exceeded any in our history. While that team diligently worked to respond to those needing assistance, other teams worked to assist in innovative ways. A site was established with guidance for telework setup and daily "open office" hours were hosted for anyone to come with questions and get answers. This collaborative effort enabled smooth transitions to remote locations, allowed agencies to quickly resume work, and helped to alleviate historically long call queues.

96,503
help desk support calls received.
A 19% increase from 2019!

103,122
Footprints tickets resolved.
With a customer satisfaction rating of 97.3 percent!

Remote Work Devices. The large scale and rapid transition from on-site to remote work locations was difficult for everyone. However, for more than 800 state employees, the transition was impossible due to the lack of adequate technology devices to support the transition. To ensure every state employee had the technical tools necessary to complete their work, the Office of Information Technology began placing bulk orders of laptops, docking stations, and laptop accessories to meet the needs of all employees whose work ability was negatively impacted by the work-from-home transition. Without the quick purchase and deployment of these devices, all affected employees would have been unable to transition to safe, remote locations.

Security Acceleration Initiative. Malicious cyber actors have shifted their techniques to capitalize on fears associated with the pandemic and take advantage of the remote workforce. During this time, the Information Security Office saw a 33 percent increase in phishing attempts and a 90 percent increase in firewall probing attacks. To combat these attacks, the Office of Information Technology implemented a security acceleration initiative that significantly strengthened the State's security posture to support and protect our remote workforce and State assets during the pandemic.

School Summer Food. The School Summer Food program faced significant challenges with providing food to children during the pandemic. The Office of Information Technology, in collaboration with the Department of Education (DOE), supported 150

new sponsors and approximately 300 additional sites to provide and deliver meals. Our teams quickly implemented new business rules and system changes to ease the process and ensure sponsors were paid on time, enabling DOE to provide nutritious meals to tens of thousands of Maine children who might otherwise not have received them.

Tax Deadline Extension. In March, Governor Janet Mills extended the deadline for Maine income tax payments. The Office of Information Technology collaborated with and supported Maine Revenue Services (MRS) by implementing business-rule changes in the modernized E-File and I-File systems and assisted with Rules Engine changes in the primary tax system. This critical work enabled MRS to adapt and comply with the rule changes with no impacts to citizens.

Teams Migration. In early 2020, about 300 people were using Microsoft Teams for day-to-day collaboration. In March, with the Executive Order for remote work, the Office of Information Technology saw a dramatic increase in Teams usage as video conferencing instantly became essential for working collectively while remote. As the Microsoft Teams usage surged by 1,900 percent to more than 6,000 users per day, we began, and completed six months ahead of schedule, the migration from Skype to Teams as our enterprise collaboration and video conferencing tool.

Voice Team Infrastructure Upgrades. During the pandemic, the Maine Department of Labor received historic call volumes, often exceeding 20,000 calls per hour, from Maine citizens seeking assistance. The Voice Services team worked to increase the number of concurrent calls and install the infrastructure necessary for the DOL Call Center to support the volume. This work was critical to expand call center abilities and enable DOL to continue their efforts in supporting the citizens of Maine during a time of devastating unemployment rates.

Notable Projects

Over the past year, the Office of Information Technology has engaged in projects to help modernize our assets, improve security and performance, and provide better services for our agency partners and Maine citizens.

Cost of Living Adjustments. Each year, the Office of Information Technology works closely with agency partners to process Cost of Living Adjustments (COLA) to citizen benefits. This time-sensitive process has direct impacts on Maine citizens and must also account for changes in the Federal process and State system constraints. Knowing and recognizing the challenges, teams throughout State government collaborated to plan appropriately and deliver an overwhelmingly successful process that ran in record time. As the COLA process is historically a significant pain point, its rapid completion was a major achievement for all state partners. The speed, efficiency, and success of this

process came as a direct result of our investment in client-centric service and a team-based approach, enabling all involved to work collaboratively to achieve a positive outcome and provide seamless, positive impacts to Maine citizens relying on benefits.

Integrated Tax System. The Office of Information Technology partnered closely with MRS to develop, publish, review, and award a major ten-year information technology initiative to replace the outdated tax system with a single, modern, and integrated tax system. Using a well-planned and collaborative approach, we were able to successfully complete all work necessary, resulting in a signed contract just six months after the initial release of the request for proposal. The new tax system, which will collect tens of millions of dollars in revenue annually for the State, will revolutionize the service provided to Maine taxpayers, while ensuring that their personal data and information are protected using the highest safeguards available.

Modernized Backup System. The Office of Information Technology has modernized our backup, archival, and restoration data management system. The new system replaces the manual, expensive legacy tape practice to support efficiency of government operations while strengthening our security posture. Previously, our 600+ servers and databases required manual, nightly tape backups. The modernized system drastically reduces manual labor requirements, correlating to a cost savings of $277,871 per year and a 50 percent decrease in backup duration and restoration times.

Multifactor Authentication/Privileged Access Management. In February 2020, the Office of Information Technology launched the Multifactor Authentication and Privileged Access Management (MFA/PAM) Project. The project was based on key security principles: zero trust and least privilege as part of our ongoing efforts to strengthen the State's security posture. The MFA/PAM Project adds an additional layer of security to user accounts by redesigning the standard username and password model to include a credential factor to which only the specific user has access, which drastically reduces the likelihood of credential theft.

Unix/Linux Vulnerability Management. In July 2019, the data services and security teams initiated a project to reduce the vulnerabilities in Unix- and Linux-based IT systems. This project required a thorough analysis of our vulnerabilities, decommissioned legacy servers, and platforms to implement new processes and standards and enhance automation. The teams worked diligently throughout 2020 to reduce the total number of vulnerabilities across the Linux fleet by 78 percent and our overall risk score by 75 percent, thereby providing critical improvements to the State's security posture.

Policy Accomplishments

The Architecture and Policy team, in collaboration with the Information Security Office, has begun a large-scale effort to align our IT security policies with the National Institute of Standards and Technology (NIST) framework. This framework was developed in partnership with the U.S. Government and provides formal guidance to address: the management of cybersecurity risks, the ongoing operation of our security program, compliance with regulatory requirements, and the implementation and maintenance of internal security management practices and programs.

As a part of the development of these policies, we are identifying areas in which we are not in compliance with the NIST framework and are documenting these gaps as a Plan of Action and Milestones for continuous and future security posture and procedure improvement. The list below encompasses a selection of the major policy accomplishments in 2020 that align with and adopt the NIST framework.

Policies Published in 2020

The Architecture & Policy Team - January 2021

- *Configuration Management Policy (CM)* – Outlines the Office of Information Technology's policy and procedures for ensuring appropriate configuration methods are applied in maintaining state information assets.

- *Cyber Incident Response Policy and Procedures (IR) and Incident Response Plan (IR-8)* – Establish our formal, focused, and coordinated approach to cyber-incident response.

- *Identification and Authentication Policy and Procedures (IA-1)* – Outlines password requirements, requirements for privileged and nonprivileged account access, and the requirements for identification and authentication.

- *Risk Assessment Policy and Procedures (RA) and Vulnerability Scanning Procedure (RA-5)* – Define the Office of Information Technology's procedures for assessing cybersecurity vulnerabilities and addressing security risks.

- *Rules of Behavior (PL-4)* – Describes the responsibilities and expected behavior of those using State of Maine information or information assets.

- *Security Planning (PL-1)* – Outlines procedures for security planning through developing system security plans as required, through implementing rules of behavior for users, and through designing security architecture.
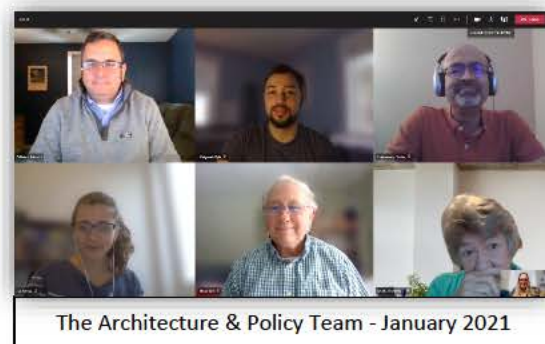
Thank you

We shall all remember 2020 as the combination of the global pandemic, national discord, shared experiences, and personal challenges. State employees will not forget the difficulties in delivering expanded citizen services while trying to stay safe and effective. Technology was forced into the forefront of helping our agencies do just that. I am proud of the response of the IT staff that worked tirelessly and creatively to enable the State's ability to continue its work for our citizens.

I would like to thank the State's leadership for their support of IT throughout the pandemic. There was recognition of the additional needs in the technology space and barriers were removed and encouragement given. Our agency partners were fully present in letting us know what they needed and helping to get it right. While the pandemic has been a trial that nobody wishes to repeat, it brought out our greatest strengths and confirmed our commitment to service to the citizens of Maine.

Fred Brittain
Chief Information Officer