MA Executive Office of Technology Services and Security

Modern Workplace Program

Category: Enterprise IT Management Initiatives

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McCormack Building
1 Ashburton Place, 8th Floor
Boston, MA 02108
Main Office (617) 626-4400

Executive Summary

For decades, the Commonwealth's executive departments and divisions operated as technology siloes, relying on a varied range of hardware, operating systems, applications, and collaboration tools to fulfill their respective missions. Managing disparate technology stacks on their own, struggling to maintain their end user computing fleets, and negotiating separate contracts for software and collaboration tools proved to be wildly costly and inefficient for most agencies.

The Massachusetts Executive Office of Technology Services and Security (EOTSS) set out to address these issues in late 2019 through an ambitious enterprise IT transformation effort called the Modern Workplace Program (MWP). The MWP was a cross-agency initiative managed by EOTSS in partnership with Microsoft Consulting Services aimed at uniting 100+ state agencies and their 40,000+ end users around a common platform and standard operating environment.

Over two years, the six program workstreams would standardize all agencies and their end users on a new hardware set up, deploy nearly 20,000 new laptop computers, and rollout Microsoft's cloud-based productivity and collaboration solutions. The program's hardware, software, and tools promoted data security, collaboration, and mobility. It also enabled new remote work options for state employees, increased collaboration and efficiency, and further strengthened the Commonwealth's cybersecurity posture and its resiliency.

To achieve these goals, EOTSS, Microsoft, and agency IT organizations migrated 42,027 mailboxes, 109 terabytes (TBs) of personal files, and 88 TBs of group shared files. They also moved 152 business applications to the Azure AD tenant and were able to decommission another 30 outdated applications. Lastly, EOTSS and Microsoft held 272 live training sessions and over 50 weekly office hour meetings to bolster adoption and change management efforts throughout the enterprise.

Today, the MWP is enabling government to operate effectively under any circumstances – which was particularly beneficial during the COVID-19 pandemic response. The program's technology solutions also helped influence the Baker-Polito administration's decision to shift to a permanent hybrid workforce model and has supported the Administration's efforts to reduce its office space footprint in and around Greater Boston as part of the Governor's Future of Work Initiative.

The MWP has completely transformed the way the most agencies and their employees do business in the Commonwealth. Hardware and software procurements, deployments, upgrades, and security patches are now centrally managed through EOTSS and pushed out remotely to the end user in a timelier manner. Office 365 with the Office Pro Plus suite of productivity and collaboration tools enables the hybrid workforce envisioned by the Future of Work initiative – allowing for seamless remote collaboration among employees.

The migration of personal and group shared files to OneDrive and SharePoint ensure remote access and sharing without the need for a VPN client or remote desktop access that had historically been required to access on-premises files and network drives. And, whether individuals are on-site or remote, moving to Azure AD for identity management allows employees to have seamless access to all their applications so they can stay productive from anywhere.

The Idea for the Modern Workplace Program

Upon its creation as the lead information technology agency at the cabinet level, EOTSS inherited a non-standardized and fractured information technology and cybersecurity landscape. Agencies relied on a varied range of hardware, operating systems, applications, and collaboration tools to fulfill their respective missions. The situation was costly and inefficient as many agencies managed disparate technology stacks on their own, struggled to maintain their end user computing fleet, and negotiated separate contracts for software and collaboration tools.

By late 2019, Secretary/CIO Wood and his new leadership team sought to transform the landscape by uniting 100+ state agencies and their 40,000+ end users around a common platform and standard operating environment to be centrally funded and managed by EOTSS. The team envisioned a more secure, available, and accessible technology stack that would enable a more mobile, efficient, and resilient state workforce. EOTSS would establish a standard end user technology set up for each employee, move all agencies to cloud-based solutions, help secure funding to upgrade the computing fleet, and centrally manage all contract and licensing agreements.

Around the same time, the Commonwealth was exploring ways to save on maintenance, energy, and leasing costs as well as to help ease traffic congestion in Greater Boston. The Baker-Polito Administration sought to reduce and repurpose its state-wide facilities footprint and expand the existing telework program where possible to achieve these goals, but without compromising on access to and resiliency of Commonwealth provided services.

The Secretary and team knew that their new vision would not only transform the enterprise technology and cybersecurity landscape but that it would also help the Administration meet its desired footprint reduction and hybrid workforce standards. EOTSS then got to work outlining an ambitious enterprise plan to unite and transform all 100+ executive agencies and their 40,000+ end users within 2 years.

EOTSS faced a host of challenges during the planning phase. The team would need to decide on a common platform and end user set up; explore productivity and collaboration tools; and ensure they had a funding source along with the support of key partner agencies within the Administration. More importantly, the Secretary knew that he and his team would have to influence and provide a path forward for agencies and their IT leadership (each with unique organizational missions and regulatory frameworks) to adopt a new approach to buying, provisioning, and using technology—one they had no direct control over.

To implement their plan, the team turned to a long-time partner, Microsoft – who, as fate would have it, was working to complete the final phases of an enterprise-wide migration to their cloud-based email platform. EOTSS realized Microsoft's Windows 10 operating system with the cloud-based Office 365 Pro Plus OneDrive, SharePoint, and Teams could provide the enterprise solution, productivity suite, and collaboration tools to make the initiative a success.

Furthermore, with the Secretary's executive sponsorship and well-established relationships with executive leadership in the Governor's Office, the Executive Office for Administration & Finance (EOA&F), his fellow cabinet secretariats, and the Commonwealth's Human Resources Division, the EOTSS team was confident they could secure the necessary funding and help break through the long-standing pockets of resistance.

By January of 2020, a plan was in place, funding was secured, and the Modern Workplace Program (MWP) was born. EOTSS assumed executive leadership for the Commonwealth and entered a new partnership with Microsoft Consulting Services to deploy hardware, software, and tools that promote data security, collaboration, and mobility across nine secretariats, more than 100 Executive Branch agencies, and 7 independent and constitutional agencies and offices.

The timing of the MWP planning and the initial program rollout could not have been more fortuitous for the Commonwealth. Every state agency and their employees would be looking to EOTSS for many of the MWP solutions that following March with the outbreak of the COVID-19 pandemic.

Modern Workplace Program Implementation

In January of 2020, EOTSS and Microsoft Consulting Services held a kickoff meeting for the MWP with key stakeholders – which included he Governor's Office, EOA&F, and the secretariat chief information officers for the seven other cabinet secretariats, as well as representatives from independent and constitutional agencies and offices outside of the Executive Branch who opted into the program.

The Secretary and the EOTSS team worked behind the scenes with their peers at the other secretariats to explain the program, secure funding, and generate buy-in for the proposed enterprise transformation. They needed help from secretariat and agency leadership to break through resistance and other barriers to success in implementing the MWP platform and tools. EOTSS was also able to negotiate a novel funding source for the nearly 20,000 new laptop devices that would need to be procured as part of the new standard end user technology set up. The Secretary worked with his counterpart at EOA&F to fund the hardware purchases from the center using short-term debt financing, with the associated debt service funded at the agency level.

To implement the project, an Executive Steering Committee (ESC) was formed by the Secretary and led by the EOTSS Chief Operating Officer (COO) who directed and organized the Commonwealth's priorities and operations across the EOTSS technology, operations, and security departments, EOTSS Program Management, agency stakeholders and Microsoft executives. They would check in weekly to start, and then eventually bi-weekly and monthly as the project progress dictated.

Reporting up to the ESC were six separate workstreams, all assigned project management leads from EOTSS and Microsoft. The workstreams reflected the five key areas of the program – Laptops/Device Deployment; Email Mailbox Migrations: OneDrive Rollout and Personal File Migrations; SharePoint Rollout and Group Shared File Migrations; Azure AD Conversions; and Adoption/Change Management.

The five major technology workstreams kicked off the program with perquisite readiness assessments and information gathering among all the agencies involved. EOTSS and Microsoft collaborated with secretariat chief information officers (SCIOs) to assess the baseline status for their respective agencies and their readiness for deployment of new devices, software, and applications under the MWP.

After the initial readiness phase, each workstream rolled out new hardware and operating system upgrades and leveraged the full cloud-based Microsoft Office 365 suite and the Azure Active Directory (AD) identity access management framework to support the Commonwealth's strategic and tactical goals of promoting government business continuity and technical resiliency, offering enhanced citizen experiences, and enabling our state workforce a modern and mobile technology platform in support of good government.

Supporting the five technology workstreams was the Adoption/Change Management program managed by EOTSS in collaboration with the Microsoft change management professionals. This program included robust communications and training plans, the creation of a change management network throughout each secretariat, and frequent updates to cabinet secretaries and their chiefs of staff. Training included live sessions, self-directed learning pathways, and weekly office hours.

Two and a half months into the MWP, the COVID-19 pandemic sent an unprecedented 20,000 state employees home to telework. Suddenly pockets of resistance to remote work and new technologies evaporated. Agencies wanted to be first in line for the new hardware and collaboration tools. Thankfully, much of the groundwork and initial readiness assessments performed by EOTSS and Microsoft at the end of 2019 and early 2020 allowed for the rapid deployment of 7,200 priority laptops and widespread access to Office Pro Plus for all employees and contractors to meet the new demand at the pandemic onset.

Modern Workplace Program Impact

The MWP was one of the largest technology transformation projects ever attempted in the Commonwealth. There have been larger IT programs, projects, and procurements for sure. However, never have all 100+ Executive Branch agencies and their 40,000+ end users been united on a common cloud-based platform, using the same operating system, productivity suite, and collaboration tools. The MWP
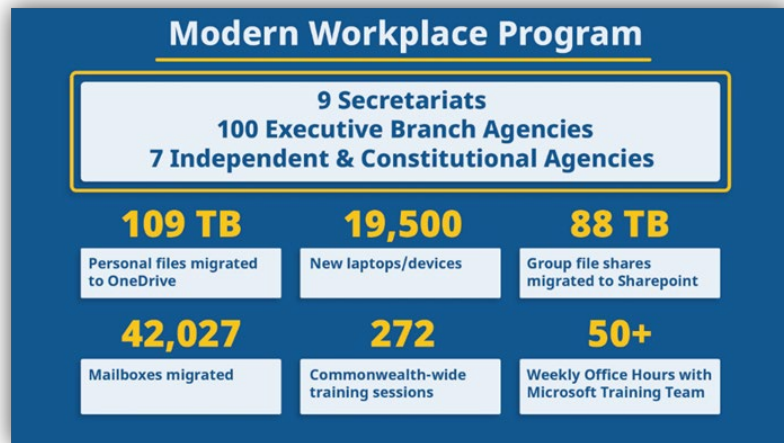
truly changed the way that agencies and employees work and how they do business in the Commonwealth. Furthermore, access to (and the security of) our systems and services was greatly enhanced as a result of this transformational success.

Prior to the MWP launch, employees in the Commonwealth's Executive Branch agencies relied on a varied range of hardware, operating systems, applications, and collaboration tools to perform their respective jobs. The IT "state of the state" included:

- Use of different end-user hardware setups (desktops, laptops, and tablets) across agencies and secretariats – lacking a standard operating environment).
- A partial migration from the Windows 7 operating system and older Microsoft Office applications to Windows 10 and Office 365 Pro Plus (3 out of 9 secretariats had been migrated).
- The deployment of various web-based meeting, videoconferencing, and telephony tools without a true enterprise standard solution.
- Collaboration mostly limited to sharing files via email and local personal and group shared drives.

- Hardware updates, procurements, and deployments managed by each secretariat and agency on an inconsistent basis.
- Software updates and security patches managed through secretariat and agency IT organizations (not centrally managed via EOTSS).

To address the inconsistency, inequity, and security concerns in end-user hardware, software, and collaboration tools across the enterprise, the MWP workstreams enabled a more modern and resilient workforce by:

- Deploying a **standard end-user hardware and software set up** for all Executive Branch Employees (**Windows 10** with **O365 Pro Plus**)
- Providing a consistent end user experience through a centralized IT operations and support model across all secretariats and through automated, standardized licensing
- Migrating personal employee files to the accessible and secure cloud-based solution **OneDrive for Business** – allowing access from anywhere on any device
- Moving group shared files to accessible and secure cloud-based **SharePoint** solution so that employees can access and collaborate on documents from anywhere on any device
- Migration of email off premise to more secure, resilient, and accessible Office 365 cloud
- Standardizing on **Teams** as the standard for office collaboration and videoconferencing
- Facilitating less reliance on tools or configurations that create barriers or silos, like email, shared network drives, remote desktop access, and VPN

Additionally, all Centrify/Idaptive (the previous Commonwealth-approved Identity Access Management platform) supported applications were moved (or are in the queue to be migrated) to the Microsoft AZURE Active Directory Identity Services, to provide

secure and simplified access to Commonwealth applications and systems through single sign-on and multi-factor authentication for all users.

Whether individuals are on-site or remote, they will have seamless access to all their apps so they can stay productive from anywhere. During the past two years as part of the MWP, EOTSS migrated 152 business applications to the Azure AD tenant. Another 30 outdated applications were decommissioned, and several business applications are in the queue with Health and Human Services for migration in 2022 and 2023.

The MWP is a major step forward for rollout of a Standard Operating Environment (SOE) for all end-user computing in the Executive Branch and its partner independent and constitutional agencies and offices. Hardware and software procurements, deployments, upgrades, and security patches are now centrally managed through EOTSS and pushed out remotely to the end user in a timelier manner. During this time, 19,500 new laptop devices were procured and deployed through a central funding source for all agencies, and older devices were retired.

Most importantly, EOA&F has agreed to work with EOTSS on a plan to regularly fund the refresh of the enterprise laptop fleet on a rolling basis as we move forward – to ensure the Commonwealth is on a 5-year schedule of fully upgrading its end user devices and maintaining its focus on usable and modern technology and security compliance.

Furthermore, Office 365 with the Office Pro Plus suite of productivity and collaboration tools enables our hybrid workforce, allowing for seamless remote collaboration among employees. The migration of personal and group shared files to OneDrive and SharePoint ensure remote access and sharing without the need for a VPN client or remote desktop access that had historically been required to access on-premises files and network drives. And, whether individuals are on-site or remote, moving to Azure AD for identity management allows employees to have seamless access to all their applications so they can stay productive from anywhere.

A recent testimonial from one of our Commonwealth employees who works for the state highway department: *"Thank you so much…you have hit the mark on this new technology approach. It has helped make my job easier, and I don't need to drive hours back and forth now to finish my reports".*

Together, the hybrid model and MWP technology solutions have also helped the Commonwealth make significant progress towards the Administration's goals for savings on office maintenance, energy, and leasing costs. There are currently 40 state agencies moving and consolidating their office footprints in and around Greater Boston as part of the Governor's Future of Work Initiative. The Administration is projecting $80 million in office rent savings over the next 10 years as a result of these moves and space consolidations. The Future of Work Initiative would not be possible without the MWP and other recent EOTSS investments in technology modernization funded through the IT Capital Investment Plan.

The EOTSS team knew the MWP had set ambitious goals for enterprise IT transformation that had never been attempted before in the Commonwealth. If you had asked them in March of 2020, when COVID-19 reared its ugly head, if they thought they would have mostly completed all six workstreams by the beginning of 2022, they probably would not have been so optimistic. However, the pandemic proved to be a great accelerator for the program, cut through agency resistance to remote work, and demonstrated the benefits of deploying the MWP technology solutions across the enterprise. It was a truly a blessing in disguise that helped drive the program to completion.

The MWP now serves as a foundational element of the Commonwealth's commitment to its workforce and computing environment. It provides the technology innovation and capacity to continue our Future of Work program, which includes supporting and encouraging remote work, flexibility when recruiting, hiring and retaining employees and contractors, and providing for greater resiliency and access to our business applications and systems -- which provide direct support and service to our nearly 7 million residents and thousands of businesses across the Commonwealth.