2017 NASCIO Nomination

Sponsor: David Behen, DTMB Director and Chief Information Officer

Title: MILogin - An Enterprise Identity and Access Management Solution

Category: Enterprise IT Management Initiatives

State: State of Michigan

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Contact Information:

Eric Swanson

Director, Center for Shared Solutions

Michigan Department of Technology, Management and Budget (DTMB)

517-335-1338
SwansonE@michigan.gov

Andrey Verevko

MILogin Service, Center for Shared Solutions

Michigan Department of Technology, Management and Budget (DTMB)

517-284-7157
VerevkoA@michigan.gov

EXEMPLAR

"Some of the best ideas for improving state government come from inside the state government," The State of Michigan Governor Rick Snyder said while announcing the winner of "Bureaucracy Busters" program – "Cut down on the number of passwords to access state employee websites." With that gem of an idea, he set a vision of creating a centralized Identity and Access Management (IAM) platform that could be utilized by all State agencies to transform IT security and improve user experience with a single Identity for citizens, employees, contractors and business partners.

In February 2014, the DTMB and the Department of Health and Human Services (MDHHS) launched MILogin, an innovative project to build a centralized IAM platform for the state. MILogin helps manage access to a diverse set of IT applications across all state agencies with advanced features that extend government services, protect sensitive data and improve IT efficiencies.

Since inception, several major accomplishments, as shown in Figure 1 below, have been achieved by MILogin. Today over 660,000 business entities, 71,000 state employees and contractors, and 70,000 citizens are using MILogin to access more than 160 applications across 13 state agencies. With its agility, MILogin is on track to realize the vision with which it was created – by October 2018, MILogin is expected to provide secure access to over 400 state applications used by 5.5 million Michiganders from all walks of life.
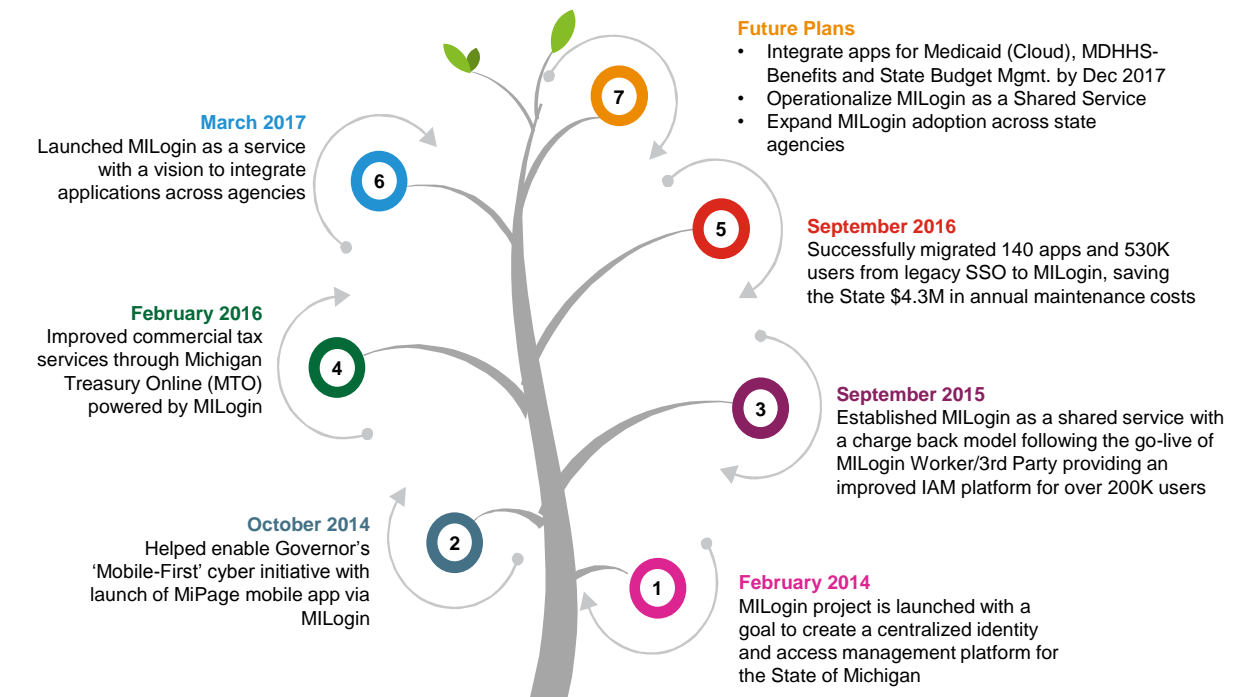
Future Plans
- Integrate apps for Medicaid (Cloud), MDHHS-Benefits and State Budget Mgmt. by Dec 2017
- Operationalize MILogin as a Shared Service
- Expand MILogin adoption across state agencies

March 2017
Launched MILogin as a service with a vision to integrate applications across agencies

September 2016
Successfully migrated 140 apps and 530K users from legacy SSO to MILogin, saving the State $4.3M in annual maintenance costs

February 2016
Improved commercial tax services through Michigan Treasury Online (MTO) powered by MILogin

September 2015
Established MILogin as a shared service with a charge back model following the go-live of MILogin Worker/3rd Party providing an improved IAM platform for over 200K users

October 2014
Helped enable Governor's 'Mobile-First' cyber initiative with launch of MiPage mobile app via MILogin

February 2014
MILogin project is launched with a goal to create a centralized identity and access management platform for the State of Michigan

Figure 1: MILogin Journey from 2014 to 2017

CONCEPT

Challenge Faced by the State for Managing Access:

While the state was looking for innovative ideas to enhance efficiency, customer service and security, state agencies responsible for health care reforms, law enforcement, infrastructure, revenue services, regulation, judicial services and transportation lacked a common security platform for a large number of web applications that were critical to their respective operations. Although there was a legacy Single Sign-On (SSO) platform that a few agencies used, it was outdated and lacked critical security, scalability, and contemporary integration features. The lack of a shared and secure platform for identity management resulted in several deficiencies, including:

- Multiple sets of credentials per user across state systems, resulting in poor user experience.

- Lack of a consistent authentication and authorization approach, resulting in increased risk of unauthorized access.

- Lack of advanced security mechanisms, like Multi Factor Authentication (MFA) and Identity Proofing, which are crucial to information security in today's environment.

- Increased total cost of ownership, as IT systems and services were provided via redundant portals and models, each with its unique security authentication mechanisms.

- No enterprise mobile-friendly solution for users to securely access government services and business applications.

Genesis of the Solution:

To remediate these key deficiencies, the Governor outlined his strategy and proactive approach to overcoming challenges associated with the government's growing dependence on technology. The state needed a secure enterprise platform that addressed these challenges and provided IAM capabilities.

The Answer to the Challenge:

MILogin was designed with the following key priorities:

- Mobility to support easier access to state services and information for citizens, businesses, visitors, and state employees.

- Cybersecurity to support a unified user identity while maintaining regulatory compliance and privacy protections.

- Capability to integrate with the applications deployed in the Cloud for IT innovation, leveraging repeatable secure integration patterns.

- Data collaboration to help agencies discover new insights and solutions for problems through data sharing and analytics.

MILogin is being implemented in an iterative, phased approach in line with business growth and adoption. Initially, MILogin was developed as a portal providing secure access to health care applications utilized by MDHHS. Subsequently, leveraging the

solution's ease of integration, MILogin has evolved into a shared service for the state that is currently being used across 13 state agencies to protect access to sensitive data, securely expand services to users, and to bring transparency to "who has access to what." The solution is deployed on a distributed platform following the principles of n-tier architecture in its design for enabling scalability, security, performance, and interoperability.

Figure 2: MILogin Key Functions & Features

The MILogin solution provided major advancements relative to the legacy SSO system. Figure 2 above shows an overview of key features that MILogin offers.

Leveraging the mobile platform's full power, MILogin utilizes a user's mobile device for added security by reaching mobile devices through Multi-Factor Authentication options, including One-Time Password (OTP), voice-call-back and soft-tokens. MILogin has also been integrated with an industry-leading credit bureau for Citizen Identity Proofing services to detect and prevent Identity fraud.

MILogin has a dedicated communications team, which is constantly working to increase MILogin adoption by educating users about MILogin's core functionalities and associated benefits. In this effort, the communications team periodically organizes training sessions for helpdesk professionals and publishes email flyers/tutorial videos for end users.

SIGNIFICANCE

The state's legacy SSO system was incompatible with the growing compliance and IAM needs of agencies. MILogin has been able to evolve into an enterprise-wide IAM platform that has become the state's de-facto standard. The state DTMB agency

continues to govern MILogin progress, manage risks, and bring state agencies together to achieve many of the state's goals and objectives.

Successful implementation of MILogin has been particularly significant in the following areas:

- **Enterprise-Level Compatibility and Scalability**: MILogin is the state's first easily expandable IAM platform that is compatible with web and mobile applications of all types, with User Interface (UI) rendering according to the devices.

- **Reduction in Total Cost of Ownership (TCO)**: Significant savings have been realized by breaking down agency-based silos and making their existing applications accessible from a centralized authentication and authorization platform. Examples of savings are provided in the impact section.

- **Cloud Enablement**: MILogin is capable of integrating with applications hosted in the cloud, and has developed a reusable framework. A key benefactor of this functionality is the state's Medicaid Management Information System (MMIS) - Community Health Automated Medicaid Processing System (CHAMPS). To comply with the stringent requirements surrounding the flow of Personal Health Information (PHI), the CHAMPS system was planning to move to the cloud. Since MILogin could be configured to protect cloud-based applications, the CHAMPS' integration with MILogin spared MDHHS significant amount of time and money in developing their cloud-ready identity and access control mechanism.

- **Enhanced System Availability and Continuity**: MILogin has implemented automated monitoring scripts that can detect when a backend server and application become unresponsive and immediately alert the technical team. Proactive approaches, such as log and site monitoring, have helped application teams resolve issues before they turn into large-scale incidents. This has been especially helpful for high-profile applications, like the Michigan Statewide Automated Child Welfare Information System (MiSACWIS), Birth Registry and Death-Registry, which are designated as state 'red-card' applications requiring 24x7 availability.

IMPACT

The MILogin team has worked extensively with business and IT leadership across state agencies to promote adoption and usage of MILogin. The MILogin team has been able to make key impacts in the following areas:

IT Consolidation and Optimization:

- Users can manage a variety of interactions with the state in critical areas like health care, tax return verification, and business licensing through a single platform with one set of credentials.

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- MILogin's compatibility with a variety of web-based applications and open standards (e.g. SAML, OAuth) has paved the way for future integrations with applications built on newer technology.
- MILogin, as a shared IAM service, can be configured for use by other states – as demonstrated by the successful implementation for the State of Illinois Provider Enrollment MMIS module for over 60,000 State of Illinois provider and administrator users.

Enterprise IT Governance:

- Uniform statewide enforcement of new policies and procedures via MILogin.
- With MILogin's centralized user directory, the state can more easily track permission and access changes.

Security and Risk Management:

- MILogin has helped minimize risk in areas like unauthorized access and governance of user permissions by employing approval-based access.
- Security and identity fraud risk has been greatly reduced with MILogin's utilization of MFA and Identity Proofing.
- Cost avoidance from potential Federal penalties by leveraging MILogin IAM services.

Budget, Cost Control, and Fiscal Management:

- Realized savings:
  - $4.3M/year has been saved in maintenance and operations costs since decommissioning legacy SSO.
  - $430K/year is being saved by removing the need for a two-tiered login approach with MiSACWIS.
  - CHAMPS, Birth registry and other business applications are saving over $1.5M/year with Desktop SSO.
- Projected savings:
  - $600K/year will be saved by MDHHS starting March 2017 with the integration of Bridges with MILogin for SSO.
  - $690K/year will be saved by DTMB once the SIGMA ERP integration with MILogin for SSO is completed in October 2017.
  - MILogin will be integrated with the Michigan National Provider Identifier (NPI) to protect the security and privacy of healthcare information.

Enhanced Delivery of Service to Constituents:

- Streamlined user access and improved customer services for Michigan business owners as part of the Michigan Treasury Online (MTO) initiative, where user satisfaction rose to 85%.

- The platform is compliant with the requirements set forth by the Americans with Disabilities Act (ADA) and the state's accessibility and usability standards.

- Users have access to distributed helpdesks staffed by trained professionals in the event that they face issues while using the system.

- To address the diversity of a state-wide user base, MILogin will soon be available in a format where language can easily be converted to Spanish and Arabic, with more such features to follow.

With the establishment of a secure access platform that comes with the simplicity of a single and verified digital identity and centralized access control, MILogin has strengthened security while also building on the state's ability to deliver online services in an effective and efficient manner.