Empowering Users *with* Password Self-Service

CATEGORY
Business Process Innovations

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NASCIO STATE IT RECOGNITION AWARDS

COLORADO
Governor's Office of Information Technology

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Executive Summary

With the onset of the COVID-19 pandemic, nearly 65 percent of Colorado State's workforce immediately began working remotely. And just as quickly, the traditional ways of supporting employees and their IT needs had to change. In response, the Governor's Office of Information Technology (OIT) created and provided customers with a "Remote Worker Tech Kit" with two purposes in mind - to help employees seamlessly get themselves setup to work from home as well as minimize what was sure to be an increased call volume for IT support. But what was most important was that our customers not lose productivity time due to a potential network credential lockout.

OIT has been the enterprise provider of information technology services and support to executive branch agencies and approximately 31,000 state employees since 2008. For most of those employees, their only interaction with OIT is through the Service Desk to make requests for assistance with their computing and telephony needs. Of the approximate 346,700 tickets the Service Desk resolves annually, over 25,000 of those are requests for password resets.

Now we're no stranger to the frustration felt when you lose access to your work, phone or any application for that matter because you couldn't remember the password to login. Once the pandemic became our new reality, OIT immediately set out to implement the Password Self-Service application across all state agencies as well as to the state's 64 counties that support the Departments of Revenue, Labor and Employment, and Public Health and Environment. This application enables users to securely manage their state network password (i.e., reset and/or unlock the password or get back into the account if a password is forgotten) without having to make a call into the Service Desk. We worked aggressively to deploy the application in March 2020 and by the end of June 2020 more than 11,000 users had already registered and the number of calls to the Service Desk decreased by 67%

Project Narrative

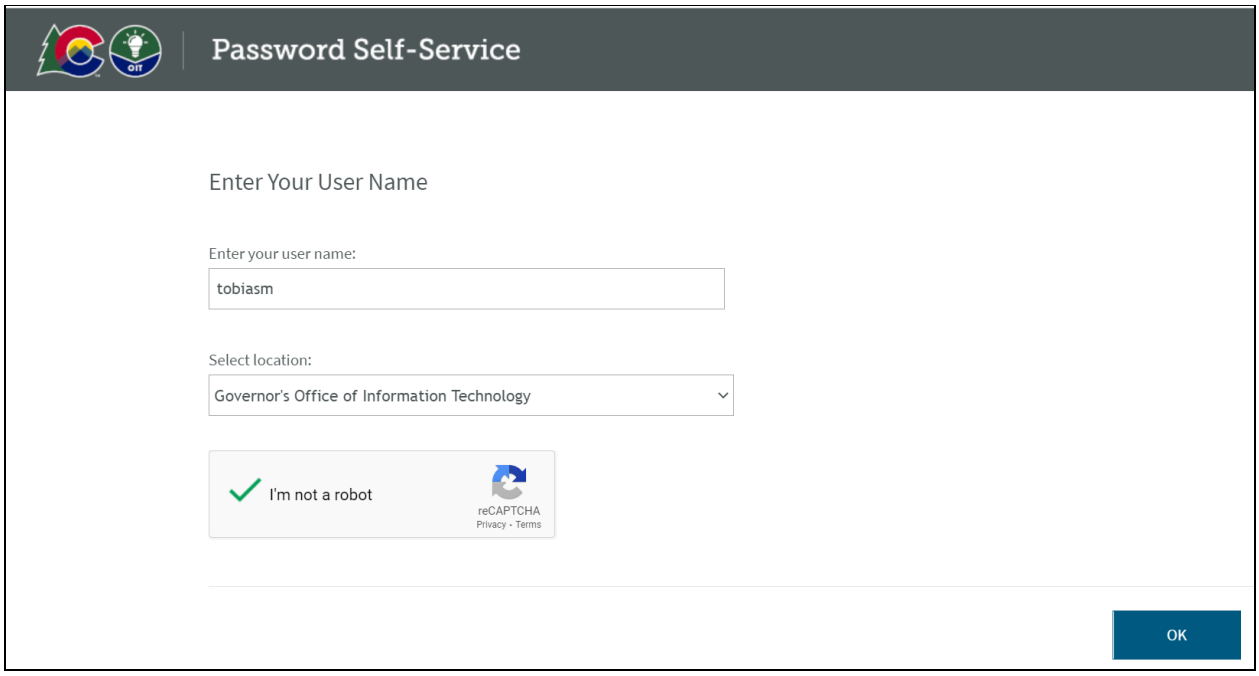
Idea

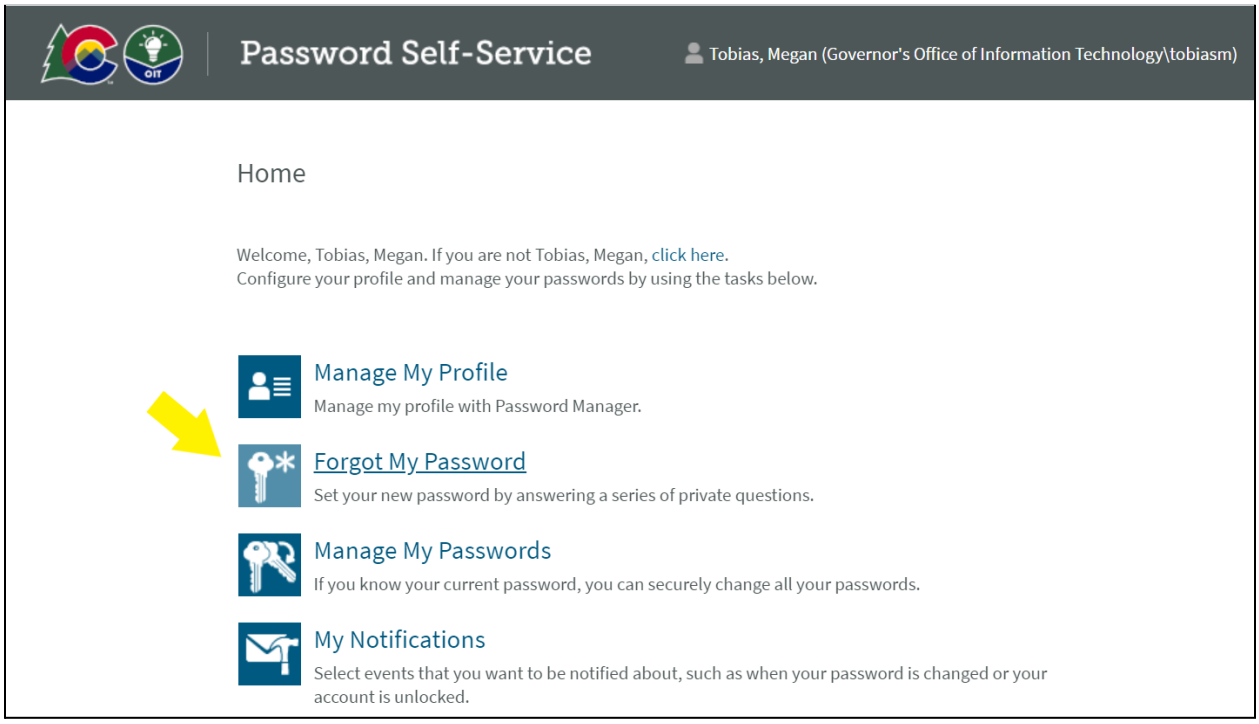
The Governor's Office of Information Technology (OIT) provides a full complement of IT services and support to Colorado's executive branch employees, most of whom's only interaction is with the Service Deck. Of the approximate 346,700 tickets the Service Desk resolves annually, over 25,000 of those are requests for password resets. To help users manage their state network password and avoid the need to call the Service Desk, OIT's Identity & Access Management (IAM) team began rolling out a new Password Self-Service application. The first implementation was in 2018. It was implemented in four other agencies in conjunction with other IAM efforts to connect services to Active Directory--a storage unit for user accounts and permissions. When the COVID-19 pandemic hit and as state employees were being directed to work remotely, we needed to pursue every option to reduce the number of support calls sure to come in so that state employees could remain productive.

The Password Self-Service project that had begun in 2018 had to be fast-tracked and implemented in the remaining 11 executive branch agencies out of 16 as well as the 64 counties that support the Colorado Department of Revenue and Colorado Department of Labor and Employment. We did just that, adding these additional agencies to the Password-Self Service application in just over just a two-month time period once the pandemic hit.

Simplification for the Users

The Password Self-Service web application (https://mypw.state.co.us/pmuser) provides a simple, secure, digitized experience that puts control back in the customers' hands, enabling users to reset forgotten passwords and unlock their accounts on their own. Using this application, we are able to implement stronger password policies while reducing the Service Desk workload and at the same time get the customer working without any delay. With Password Self-Service, there's no need to sacrifice security to reduce costs. This solution supports a wide range of data security standards, which allows the state to implement data-access policies that extend beyond the native control capabilities of Active Directory.


Password Self-Service
Enter Your User Name
Enter your user name:
tobiasm
Select location:
Governor's Office of Information Technology
I'm not a robot
reCAPTCHA
Privacy - Terms
OK


Password Self-Service
Tobias, Megan (Governor's Office of Information Technology\tobiasm)
Home
Welcome, Tobias, Megan. If you are not Tobias, Megan, click here.
Configure your profile and manage your passwords by using the tasks below.
Manage My Profile
Manage my profile with Password Manager.
Forgot My Password
Set your new password by answering a series of private questions.
Manage My Passwords
If you know your current password, you can securely change all your passwords.
My Notifications
Select events that you want to be notified about, such as when your password is changed or your account is unlocked.

Implementation

The technical implementation consisted of connecting Password Manager to each agency Active Directory, which meant many firewall change requests since the state of Colorado network is not flattened nor are the Active Directories consolidated. The implementation occurred for the following agencies:

- Agriculture
- Human Services
- Labor and Employment
- Transportation
- Health and Environment
- Natural Resources
- Corrections
- Local Affairs
- Revenue
- Regulatory Agency
- Personnel & Administration
- Governor's Office
- Office of Information Technology
- History Colorado
- Health Care Policy & Financing
- Counties

Synchronization of Resources and Project Goals

Aligning each agency into the same application was a top priority. The OIT Identity & Access Management team integrated the application into the State of Colorado's centralized Identity & Access Management Services environment by configuring challenge response questions and password policies to be used by the self-service and Service Desk portals.

Our project objectives were to:

- Strengthen data-access policies beyond Active Directories' native controls.
- Streamline Service Desk duties.
- Serve users from multiple domains — with or without trusts.
- Empower users to self-service basic password tasks.
- Extend to enterprise-wide password management.

The scope of the project included developing an enterprise application and infrastructure to support the following services:

- Password Manager Service and Administration Site
- The Self-Service Site
- The Service Desk Site

- Password Policy Manager
- Secure Password Extension
- Offline Password Reset
- Installation and operation on user workstations

Project stakeholders consisted of the state's vendor partner along with the following OIT teams: Project Management Office, Identity & Access Management, Security Risk & Compliance, Security Architecture, Enterprise Architecture, Server, Database Administrators, Service Desk, Deskside Support, Communications and IT Directors. Project stakeholders were invested in the implementation because they understood that the service being provided to customers was based on a Self-Service solution, which meant that this offering would not only be available to the project stakeholders, it would decrease calls to the Service Desk team and reduce strain on the Deskside team. It also helped the Security Risk & Compliance team to be able to share information during various audits.

Elements of Success
Project success was determined by the Password Self-Service application's ability to provide the following services:

- Password Manager Service and Administration Site:
    - Configure user scopes
    - Configure Helpdesk scopes
    - Management of challenge policies, password policies, rules, etc.
- The Self-Service Site:
    - User password management without additional assistance
- The Service Desk Site:
    - Resetting passwords
    - Unlocking user accounts
    - Assigning temporary passcodes
    - Managing users' Questions and Answers profiles
- Password Policy Manager:
    - Enforcing password manager policies if a password is changed by other means
- Secure Password Extension:
    - One-click access to the complete functionality of the Self-Service site from the Windows logon screen.
    - Dialog boxes on end-user computers that notify users who must create or update their Questions and Answers profiles with Password Manager.
- Offline Password Reset
    - Capability of resetting passwords when not connected to the agency network as well as syncing the password with the desktop password.

The state wanted to provide users with a choice to either use the web-based application or the icon that was pushed to every state desktop and laptop (30,000+) as part of the

implementation. To generate awareness and adoption of the self-service application, the state focused a great deal on ensuring adequate communication was shared with customers, which included state employees, contractors, interns and vendors. We also had to keep in mind our users in all 64 counties that provide service to Colorado's residents on behalf of state agencies. It was extremely important to be very clear about the application capabilities around what types of passwords could be managed for the state systems, resources and applications in use. There are approximately 35 line-of-business applications using Active Directory authentication, which meant that our communication and education material had to be represented appropriately. Customer material consisted of User Guides, Quick Start Guides, Bulletins, Newsletters, Service Desk Notifications and How-To Videos.

Impact

Before Password Self-Service, users would be required to call the Service Desk to have their password reset and/or unlocked. When the pandemic hit, the increased calls to the Service Desk resulted in call hold times exceeding 40 minutes, greatly impacting user productivity. With many now using VPN, it made it even more difficult to keep passwords in sync or to change passwords without being physically connected to the state network. Along with increased call hold times, the number of remote workers increased as a direct result of the pandemic and now we had challenges with passwords automatically expiring after 90 days of not logging into VPN. Before COVID-19, users would be prompted while on the network at the office to change their password and remote work changed that behavior. Password Self-Service now enables users to manage their password while away from the office, from anywhere at any time on any device without sacrificing security controls.

Causing a Ripple to Advance Our Support Efforts

By enabling users to manage their own passwords without Service Desk involvement, the Service Desk staff was better able to focus on tier I and tier II troubleshooting issues. This tool has brought to light the number of applications that were not using Active Directory for authentication, which means that the State of Colorado would need to establish a standard for new applications to use a centralized identity store as well as opportunities to eliminate tech debt with legacy applications. As new challenges continue to pop up, we will continue to transform the state's digital services to ensure that customers are receiving the best tech support possible.

Before Self-Service Password Manager was implemented, the Service Desk received 27,114 calls for password resets over a 12-month period. *After Self-Service Password Manager was implemented, calls decreased by 67%.*