



| CASE STUDY

How a State Agency Saves \$22 Million Annually Through Cloud Modernization

**SMX Helps a Public Service Shift
to an Agile Framework for a More
Resilient Case Management System**



INTRODUCTION

Spurred by the urgency of the COVID-19 pandemic, government agencies nationwide have accelerated the pace of cloud modernization to serve constituents more efficiently and effectively. According to a survey by Accenture and NASCIO, today, [88% of state CIOs](#) are accelerating their use of cloud services across programs, operations, and service delivery, with health and human services agencies leading the charge. By shifting to the cloud, these agencies can unlock greater resilience, scalability, and innovation—ultimately enhancing services for the public.

SMX stands at the forefront of this movement, partnering with government organizations to deliver modern, cloud-focused solutions that cut costs and streamline operations. After successfully guiding one state's labor and unemployment program through a large-scale cloud migration in 2017, SMX continued that momentum by helping the state's agency in charge of serving individuals with special needs.

The agency's case management system, which supports citizens with intellectual and developmental disabilities, had been in use for nearly two decades and was overdue for a refresh. SMX introduced a new Agile development framework, modernized the technology stack, and helped the agency cut its yearly operating budget from \$30 million to \$8 million—an annual savings of \$22 million—while improving overall service delivery for citizens.



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Transforming the Agency's Technology Stack and Development Processes

A key component of the agency's operations is an app that service providers use to determine benefits eligibility and manage case information for residents with disabilities. Because the app's tasks directly impact benefits decisions, maintaining uptime and ensuring 24-7 access were critical goals for the agency.

However, since the app ran on a system created and deployed nearly 20 years ago, making updates and feature releases had become cumbersome. For example, rolling out even one new feature could take more than a year, creating high-risk, labor-intensive deployments. The agency's older methodologies also caused delays in releasing new app features, leading to weeks-long resolution times for user-reported issues. The result? Developers found themselves battling a continuous backlog of problems and updates—which translated to a subpar user experience for service providers and the citizens who depend on these services.

In response, SMX developed and rolled out a plan to modernize the app, install a more effective development process, and position the agency to tackle new features and future enhancements with speed and flexibility.



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Driving App Improvements With Agile Methodology

For years, the agency relied on a waterfall development approach, which follows a linear, sequential workflow. This meant it could only push through a single large release per year, supplemented by weekly fixes. The executive team wanted a more iterative process that could quickly address changing requirements and deliver more frequent updates. In response, the SMX team introduced an Agile development framework while simultaneously modernizing the existing technology stack.

The first step was migrating the existing app environment “as is” to the cloud. SMX removed manual script executions so the code could run seamlessly from a command line and implemented source control to track changes more effectively. This reduced the risk of errors and allowed faster remediation when issues arose.

Next, SMX added an automated pipeline linked to the agency’s Azure DevOps service, enabling a direct path from code commits to production. By incorporating continuous integration/continuous deployment (CI/CD) practices, the in-house team can now release fixes on-demand (even daily) instead of waiting for the large, annual release. This transformation also drastically reduced deployment risk: rather than dealing with a massive, once-a-year rollout, developers now handle smaller, incremental releases that are easier to test and troubleshoot.

Beyond the technical improvements, SMX trained government staff to adopt Agile best practices. Shifting from a waterfall to an Agile methodology requires not only new technologies but also a culture change. The agency’s team completed hands-on training to fully understand iterative development, continuous feedback loops, and frequent release cadences—all crucial to sustaining an Agile mindset. SMX also continues to provide operational maintenance and support, ensuring the stability, security, and performance of public service applications as new needs arise.

Modernizing Legacy Application Yields Big Results

Challenges

- Slow, error-prone code deployments via a 20-year-old tech stack
- Long wait times to resolve user issues
- Risky, once-a-year feature rollouts
- Limited visibility into overarching agency priorities

Solutions

- Agile methodology for production
- Automated software development processes
- Quarterly meetings to identify wins/challenges across departments
- Clear communication of holistic agency business needs

Benefits

- Reduced manual staff hours
- Fewer code errors
- Faster response to application issues
- Quicker release of new features
- Improved team morale through transparent collaboration
- Annual cost savings of \$22 million



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Moving Toward a Cloud-Centric Future

Based on the success of the first app transformation, the agency plans to continue its modernization journey with SMX by upgrading a second app, which manages health care provider rates and billing. Unlike first transformation—a lift-and-shift migration that runs on a virtual machine—this overhaul will give the agency its first fully serverless web application, aligning with its new Agile approach from the start.

The first priority is a problematic app module that evaluates and scores service providers. Users have long complained about this module's slow performance, which sometimes requires hours to complete tasks that should only take minutes. SMX is working to transfer the module to the cloud, with the goal of saving hundreds of staff work hours each month.

This modernization effort represents a pivotal moment for the agency. The project involves working closely with another stakeholder in the public sector—an agency that oversees all of the state's IT services and security, issuing approvals over architectures and overseeing governance. SMX has played a key role in securing approvals for the app's cloud architecture, while guiding staff and leadership through the benefits of an Agile, cloud-centric model. By building a strong relationship in their tech infrastructure and workflow, these agencies are paving the way for future cloud migrations and ongoing innovation across the state.

Taking Legacy Applications Serverless

Challenges

- Poorly functioning application module
- Gaining support of an outside stakeholder/approver

Solutions

- Migrate and optimize the module in the cloud
- Provide training and support to staff in the partner agency

Benefits

- Improved application performance
- Saved hundreds of work hours monthly
- Stronger stakeholder relationships that support future cloud projects



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Keeping the Focus on End-User Benefits

By introducing an Agile framework and modernizing internal technology systems, SMX significantly reduced operating costs and improved the efficiency of the agency's production processes. Ultimately, these gains translate to a better experience for citizens who rely on these critical public services:



MORE EFFICIENT AND COST-EFFECTIVE OPERATIONS

Agile workflows and automated processes have cut down on manual tasks and freed staff to focus on higher-level projects that advance the organization's mission. Overall, the new development model has yielded \$22 million in annual savings.



GREATER APPLICATION UPTIME AND IMPROVED USER EXPERIENCE

Automated testing and continuous deployment ensure a more stable app and a faster response when issues do arise. Staff can now swiftly resolve user problems, minimizing disruptions for case managers and the people they serve.



COLLABORATIVE WORKFLOWS AND PROACTIVE COMMUNICATION

Following Agile practices, agency leadership now holds regular retrospective and planning sessions that emphasize transparent dialogue across units. Teams quickly identify what worked well and address pain points, which boosts morale and keeps everyone aligned on key objectives.



REDUCED WORKLOAD AND STREAMLINED APPLICATION PERFORMANCE

A fully serverless application unlocks faster, more stable functionality for staff and end users alike. In turn, both staff and service providers will spend less time wrestling with inefficient systems.

Modernize Your App Development With an Agile, Cloud-Centric Approach

The state agency's modernization journey shows how a proven, modern development methodology—combined with cloud-focused innovation—can yield both immediate and long-term benefits. By optimizing its resources in the cloud, the agency will continue to uncover new ways to maximize its budget while proactively meeting constituent needs. SMX stands ready to help government organizations leverage leading-edge development practices, enabling better services and measurable results for the people who matter most: constituents.



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