Innovate Ohio Platform

S.A.F.E. AT HOME

Enterprise-wide. Proactive. Efficient. Invisible to users. Ohio's advanced **Scan, Activate, Fortify, and Evaluate (S.A.F.E.) Framework** catches performance and security issues before they disrupt government or citizen services.

CATEGORY
Enterprise Technology Management

PROJECT DATES
May 2024 – May 2026

STATE
Ohio

AGENCY
Department of Administrative Services

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Department of Administrative Services

EXECUTIVE SUMMARY

Providing uninterrupted access to critical government services is the top priority for the Ohio Department of Administrative Services InnovateOhio Platform (IOP) team. Because IOP takes service reliability so seriously, the team is constantly working to overcome the diagnostic challenges inherent in managing such a complex system.

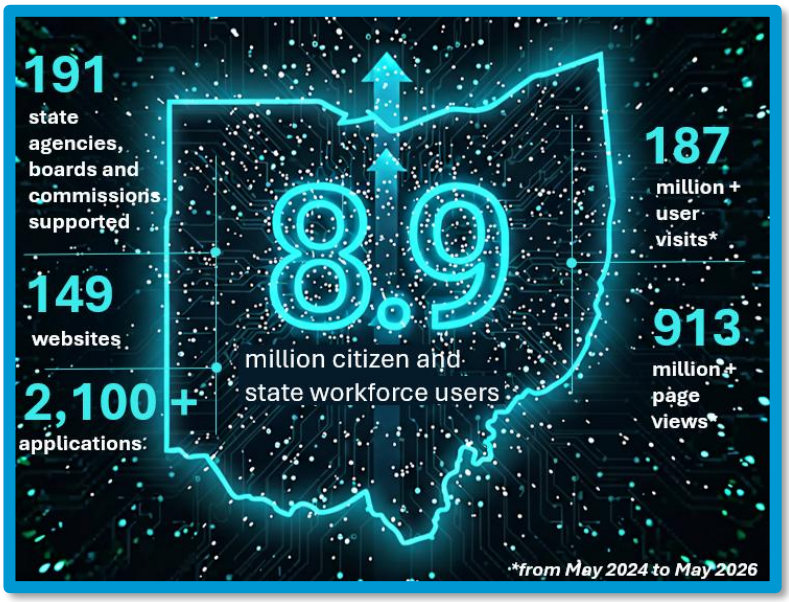
This goal led the team to ask a critical question: How can issues be pinpointed and resolved more quickly? But then, the team went a step further – what if issues could be proactively detected and resolved before they become incidents?

That's where the Scan, Activate, Fortify, and Evaluate (S.A.F.E.) Framework came in. S.A.F.E. strengthens our ability to pinpoint and respond to issues more quickly and also enables us to be more proactive – giving staff the foresight to stay ahead of issues, preventing downtime that limits Ohioans' access to critical services.

In 2019, Ohio Governor Mike DeWine's Executive Order 2019-15D established IOP, heralding a new, unified, and enterprise-wide approach to how the State of Ohio delivers services to and does business with Ohioans. Ohioans depend on these systems every day to apply for and access essential benefits. Our citizens need these systems to be convenient, easy to access, and always available. In the state's business continuity plan, IOP is the second most important program after 911 services.

A growing platform and an increasing number of services delivered through IOP increase opportunities for system failures, as well as a broader threat landscape vulnerable to attacks. It quickly became clear to the Ohio Department of Administrative Services (DAS) and its vendor partner, Deloitte, that to maintain and provide access to the platform, a new, advanced strategy that could grow with the rapidly expanding platform was needed.

DAS and Deloitte developed and implemented the



S.A.F.E. Framework. It is a unique, efficient approach that leverages enterprise-wide, real-time analytics, human oversight, and extensive visibility to deliver superior monitoring capabilities, enabling Ohio's IT teams to solve problems before citizens ever notice them.

Our IOP monitoring and alert strategy hinges on tracking the right data and sharing it with IT teams as quickly and efficiently as possible to enable proactive response. It brings enterprise-wide, real-time monitoring and predictive alerts across 100,000 key platform metrics per hour, spanning everything from server performance and user touchpoints to backend batch code upgrades.

IOP can quickly recognize potential anomalies and issues because the team understands what healthy applications, traffic patterns, utilization, and other key components look like.

Category: Improve Enterprise Capabilities

- ✓ Consolidation and optimization
- ✓ Budget and cost control
- ✓ Governance
- ✓ Service delivery

Now, risks are identified before they cause disruption. Instead of delivering alerts only when something breaks, this proactive system recognizes when issues are about to occur and alerts the right teams to review and address them, preventing incidents before they arise. The result is less downtime and a more resilient platform for the Ohioans who rely on it.

Moreover, results are delivered through an easy-to-use, real-time dashboard available to the DAS and IOP teams, so they know how well the digital system is serving citizens and where potential risks or current issues may exist.

The system has brought new operational efficiencies to complex monitoring that reduces cost and workload, while also reducing ticket volume. Moving away from labor-intensive manual monitoring, the team can manage the logs and monitoring of 80 million page views and 27 million user sessions every quarter with just a small team. In 2025, the system flagged nearly 10,000 potential issues and garnered a response time of only 73 seconds. With this success in keeping problems far from end users and reducing potential downtime, the system helps the State succeed in continuously delivering critical services to those who need it most.

The S.A.F.E. Framework serves as a nationwide model for enterprise-wide digital services availability and reliability.

IDEA

About the InnovateOhio Platform

IOP serves as the backbone of the state's digital landscape, service access, and delivery. The platform is used by over 8.9 million Ohioans and our State government workforce. Platform performance, site functionality, and 24/7 service availability are critically important for Ohioans.

Since its inception, IOP has dramatically improved how State of Ohio employees and residents across 88 counties engage with government services by providing a secure, always-on platform.

State employees use IOP to securely conduct agency business. Citizen users, in turn, rely on IOP to access and apply for government services and critical benefits.

Often times, government platforms are held to incredibly high standards despite limited resources. If State sites or services go down, it's not a mere inconvenience; it can be a barrier to critical service delivery for vulnerable citizens and families.

Efficient, Proactive Monitoring

Traditional approaches to site and performance monitoring rely on static and simple thresholds for CPU, where site visitor surges, cyberattack and other alerts are triggered only when something is inoperable. This reactive posture also means users are impacted before IT support teams can prepare and respond.

Initially, the State of Ohio utilized a more labor-intensive, static monitoring system of only the critical potential failure points across an estimated 40 state websites and 100 applications. However, as more

agencies adopted the system the infrastructure, compute, hardware, software and other resources also rapidly multiplied.

As numerous agencies and services were rapidly onboarded, the IOP team needed to find a way to take a more proactive, robust approach to monitoring and preventing downtime and service issues from this increased complexity and additional potential failure points. As important, IOP needed a solution that reduced the need for manual monitoring and application upkeep; while also consolidating that service so it could watch every performance metric across all of IOP.

Every state across the country is looking for ways to manage their expanding digital footprint as they seek to deliver digital government and services reliably to their citizens through apps, portals, and government sites. Ohio and other states need an efficient and cost-effective way to monitor and handle performance issues across these environments.

In fact, most digital access problems stem from a handful of common errors, which can be compounded by increased infrastructure and potential choke points.

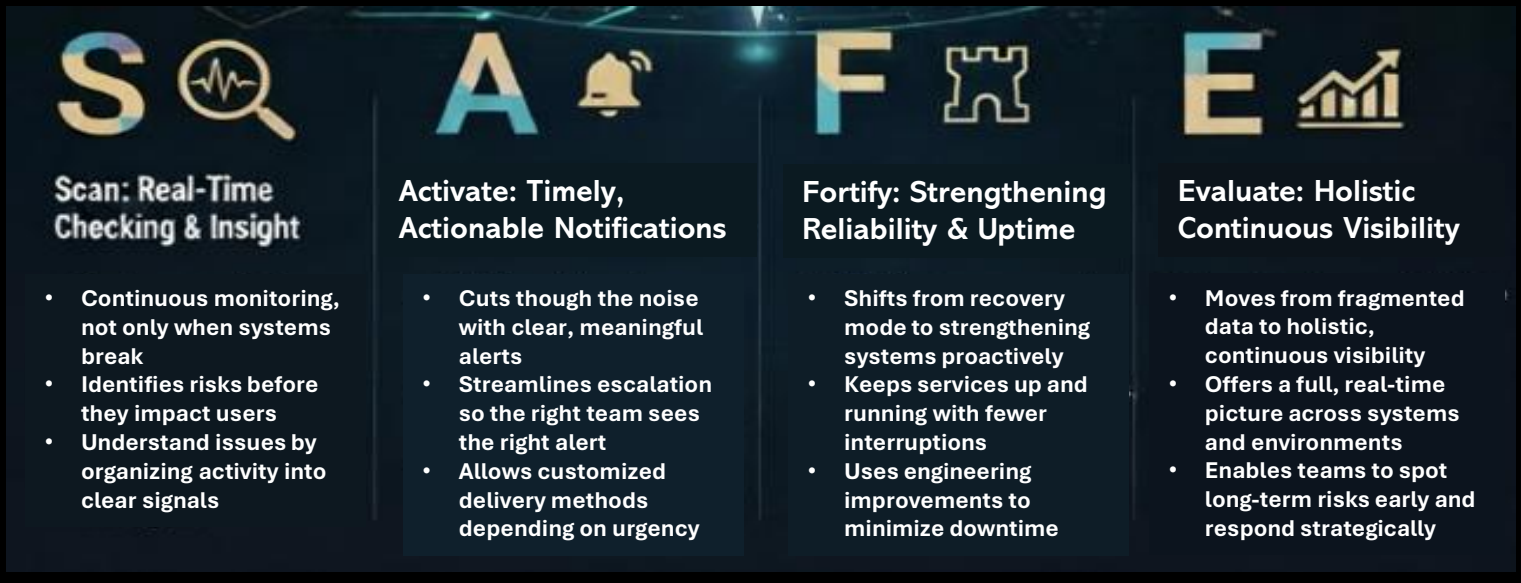
That led to a key, future focused insight: what if our IOP team could see a problem coming, or could see something "abnormal" before it ever becomes a problem?

The team believed that a shift from basic, manual monitoring (e.g., content publishing, account creation, transaction checks) to comprehensive, granular alert monitoring of all components, even batch jobs and lines of code, would strengthen the entire platform and improve overall operational efficiency – saving the state time and cost. The IOP team can oversee all aspects of the platform with just a small-sized team no matter how large and complex the platform becomes. For example, a system like this might notice that error rates were increasing unexpectedly or notice that users are waiting a few more seconds than average when logging into a site. The system would then send an alert to the appropriate IT support team to intervene, diagnose, and fix the issue long before it hits a known failure threshold or users really begin to become frustrated by wait times.

And with that future state in mind, Ohio committed to making the S.A.F.E. Framework a reality.

IMPLEMENTATION

The strategic S.A.F.E. Framework keeps IOP systems healthy and predictable through a proactive, rather than reactive, approach.



Partnerships for Implementation

To put this framework into practice, IOP coordinated with participating agencies and departments, website and application owners, and security and operations teams to align on requirements, governance, and response protocols. This statewide buy-in made it possible to use openly available website and performance data to deliver consistent, enterprise-scale alerting and monitoring across hundreds of applications and agencies, including high-visibility services such as the Bureau of Motor Vehicles and the Department of Job and Family Services.

The system utilizes multiple data collection strategies to track application health, including open-box monitoring, closed-box monitoring, and real user monitoring.

Open-box monitoring captures and monitors every API, processing job, key component and telemetry from within IOP applications and infrastructure, including all web services, software, and other third-party vendor applications.

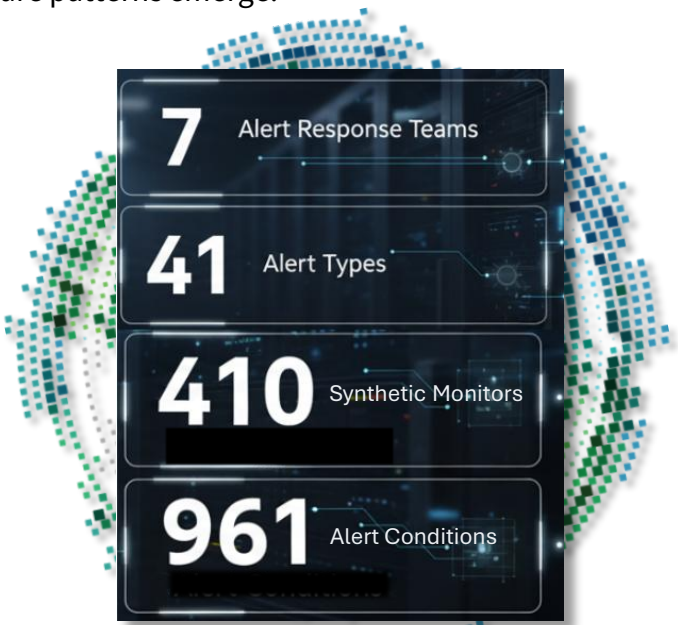
Closed-box monitoring evaluates the systems from the outside, with no knowledge of internal state. Automated browser agents act as real users navigating the platform, validating availability, functionality, and response times. These synthetic checks run from multiple geographic locations at varying frequencies, providing an external perspective on service health that complements internal telemetry.

Running a platform for nine million users is complex. The IOP S.A.F.E. Framework turns that complexity into clarity — identifying what's happening, where, and why long before it impacts anyone.

– Remard Colston, State of Ohio DAS IOP Administrator

Real user monitoring collects performance data directly from end-user browsers during live sessions, delivering real insight into the experience actual users have on the platform. This data is correlated with backend distributed traces, providing end-to-end visibility from the browser through every downstream service. Key measurements include request latencies as experienced by actual users.

Continuous system improvement is a requirement for any enterprise-level solution and is also embedded into the state's software development life cycle The new monitoring and alert system is built into every new application or service added to IOP, and thanks to the system's real-time pattern recognition, the system constantly learns what "healthy" looks like, flags deviations, and constantly evolves as new threats and failure patterns emerge.

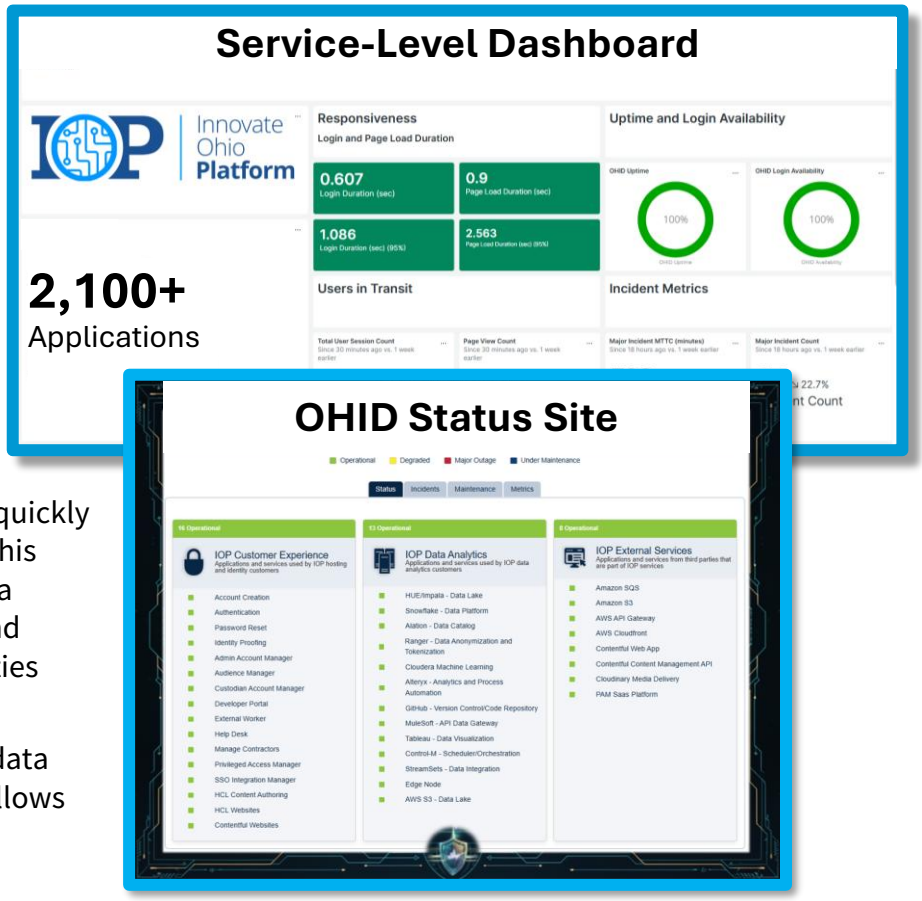


S.A.F.E. Monitoring & Alerts

Dashboard Observability

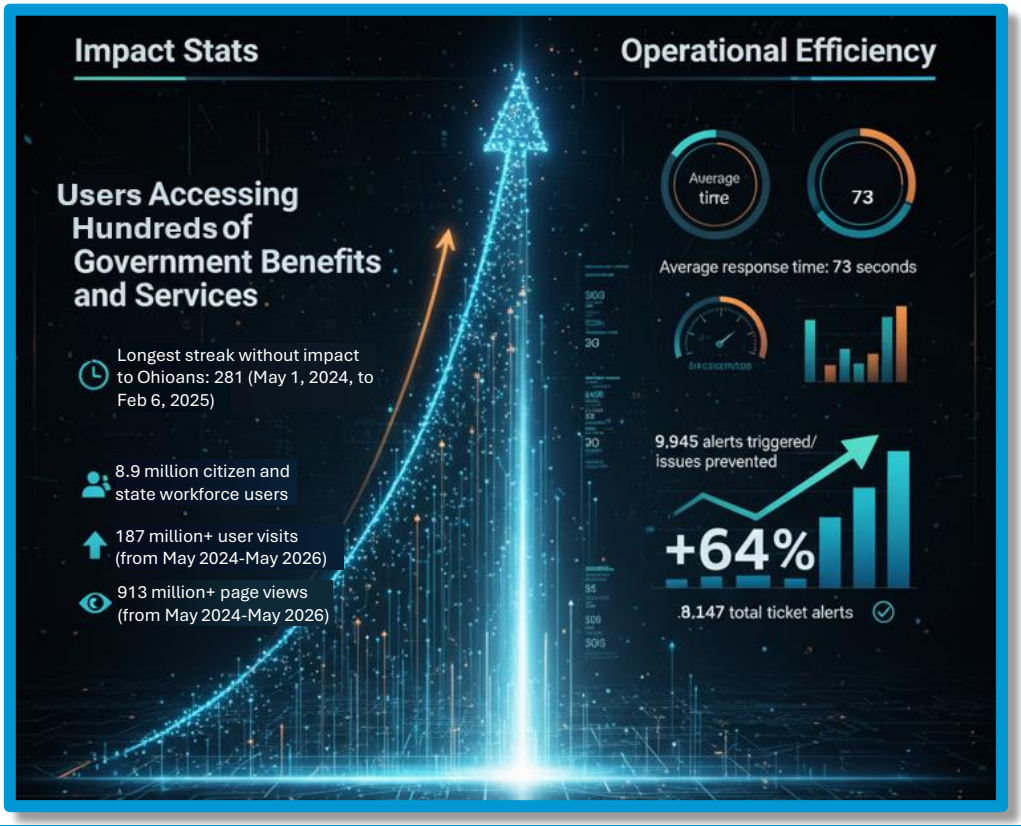
The S.A.F.E. Framework also utilizes tiered dashboards to deliver complete transparency and tailored views of the entire IOP performance footprint. For example, DAS and IOP executives can view the dashboard on a big screen at any time. With clear status colors delivered against SLA targets, these leaders immediately see a big picture view of performance and where issues need technical expertise. The service-level dashboards are organized by technical team, so when alerts arise, the responsible team can quickly identify root causes and begin triage. Offering this layered approach coordinates all teams within a single application, speeds up response time, and reduces the need to translate technical difficulties across audiences.

In a further commitment to transparency, this data also feeds into a public-facing status site that allows citizens and partner agencies to see how IOP is functioning in real time.



IMPACT

The S.A.F.E. Framework is an incredibly powerful, enterprise-wide solution for delivering comprehensive digital service availability, finding problems before impact is ever felt. Most importantly, it not only protects operational systems, it keeps citizens and users safe as they navigate government sites and services and ensures they are always on and available to those in our state who need them most.



When an Ohioan needs help — whether it's food assistance, unemployment benefits, or simply renewing a license — there's no room for downtime. The IOP S.A.F.E. Framework protects that access. It lets our teams fix issues before anyone feels them, ensuring Ohioans can always reach the services that matter most.

– Katrina Flory, State of Ohio CIO and DAS Assistant Director

WHAT'S NEXT

The S.A.F.E. Framework identifies patterns across the enterprise digital footprint to detect where issues are likely to emerge before they disrupt service. This is especially valuable because roughly 90% of incidents stem from recurring root causes. Looking ahead, the platform will build on its current pattern recognition and machine learning capabilities by incorporating AI to detect and alert on issues, compare them against historical fixes, and recommend or execute self-healing capabilities. Ohio is laying the groundwork for AI-assisted enterprise platform management. Monitoring will remain essential to this future state, providing the real-time input data that guides how AI agents assess conditions and determine the appropriate response, remediation with human approval.

CONCLUSION

The State of Ohio's innovative and unique proactive monitoring provides enterprise digital service availability and reliability across the entire IOP ecosystem. When a site, application or service is delivered through IOP, the state's IOP S.A.F.E. Framework constantly scans for performance issues, predicting when problems will likely arise and automatically alerting IT support teams to investigate and solve issues long before they ever reach users.

The S.A.F.E. Framework provides a scalable, efficient and cost-saving approach to monitoring a complex digital footprint and sets the stage for advanced digital monitoring and constant performance improvement. With an enterprise-wide solution such as this, the State of Ohio serves as a model for how state government can prevent costly outages while guaranteeing critical services availability to those who most need them, when they need them, and on a platform built on continuous innovation.