

Centers for Medicare and Medicaid Services Leverage Agile IT to Deliver Enhanced Citizen Services

Part of the U.S. Department of Health and Human Services, the Centers for Medicare and Medicaid Services (CMS) cover 100 million people through Medicare, Medicaid, the Children’s Health Insurance Program, and the Health Insurance Marketplace. CMS is tasked with strengthening and modernizing the nation’s healthcare system to provide access to high-quality care and improved health at lower cost.



Industry

Public Sector

Location

Baltimore, MD

Employees

~4,500

Use Case

Proactively manage performance across high-profile government websites used by over 50 million citizens

Highlights

- Improved mean time to resolution by 75%
- Doubled the number of websites, programs, and active users while only growing staff by approximately 25%
- Moved from traditional quarterly releases to an agile, two-week release cycle
- Increased development speed by 80%
- Improved citizen services by enhancing the online experience

With a big footprint comes a big responsibility

The Office of Communications oversees the entire CMS public website program, with a scope of responsibility that covers: Medicare.gov, MyMedicare.gov, Medicaid.gov, InsureKidsNow.gov, and the current administration’s landmark initiative HealthCare.gov—a combined active user base of more than 50 million. “Within the federal government, we’ve got one of the biggest footprints in terms of consumers we’re serving online,” said Jon Booth, director of the web and new media group in the CMS Office of Communications. “This

includes a variety of platforms and web environments that all serve a different constituent base.”

As forecasting the number of users and websites continued to be more of a challenge year-over-year, Booth’s team realized it needed far deeper insights into the performance and usage of its web environment. “We had no way of tracking performance in real time,” said Booth. “Nine times out of 10, we’d hear from the contact center that one of our sites had a problem. We knew we needed to gain greater visibility into our environment and stop the fire drills.”



Adding another layer of complexity was the requirement to integrate all of these external systems, including the HealthCare.gov platform, into a single environment that could be more easily managed. CMS required a disruptive technology to help in the process.

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From reactive to proactive, optimizing across the entire ecosystem

Disruption for the government, however, often means temporarily suspending vital services to its citizens. This makes any modernization or new technology initiative incredibly more nuanced, as the government needs to be able to harness all the positive attributes of disruptive technologies, but cannot afford to stop the flow of services (even momentarily) to do so. This problem compounds exponentially as user bases scale dramatically.

CMS needed a solution capable of delivering the comprehensive view required to put a permanent end to the fire drills. This called for performance visibility all the way from the backend of the system on through to the consumer’s view, all through a single, unified portal. They deployed a software analytics platform—one that offered everything from dashboards and alerting, to transaction traces and thread profilers—to establish an environment where they were proactively able to identify problems in the code base and prioritize fixes.

As part of its shift to a more scalable and agile technology stack, CMS migrated its applications to public and hybrid clouds, switched from expensive proprietary compute and storage hardware, and started using automation tools. This transition provided CMS with increased scalability and availability, while software analytics ensured that all of the agency’s end-users were using a common, intuitive interface,

even for non-developers who needed to understand the performance information in front of them.

Accelerating release cycles and mean time to resolution

A shift to an agile approach provided significant results. In the past four years, the workload for the web and new media group has more than doubled in terms of the number of websites, programs, and active users being supported. At the same time, Booth’s team has only needed to grow moderately, expanding by roughly 25%. The group has also been able to reduce the number of tools it uses, which in turn, lowers costs and frees up resources. In addition, CMS has:

- Decreased response times to performance issues, including improving mean time to resolution by at least 75%
- Improved from a quarterly to biweekly update release cycle
- Increased development speed by 80%
- Significantly advanced the end-user experience for citizens

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The insight CMS gets from software analytics is enabling the agency to be far more agile as they are more confident about performance before moving to production. “When we look in the rearview mirror, it’s amazing how far we’ve come,” Booth said. “All the sites we run and the systems we manage—they all make a difference in people’s lives. And that’s really meaningful for everybody on the team here. It’s what motivates us every day and will continue to moving forward.”



Making better decisions with data

CMS is leveraging a broad range of New Relic solutions to proactively manage website performance, including New Relic APM, Synthetics, Insights, Servers and Plugins. The combination of these powerful solutions:

- Provides code-level visibility across all production applications
- Enables proactive testing of applications from around the world, at any frequency
- Helps the CMS team better understand how software performance is impacting operations
- Monitors server health to track capacity, memory or CPU consumption
- Simplifies visibility into the entire application stack

As a result, CMS receives deep software analytics for every part of their environment, allowing them to organize, query, and visualize data to answer key questions about application performance and customer experience. In addition, the solution can scan hundreds of thousands of events in milliseconds to provide quantifiable information to detect, triage, and diagnose potential performance issues. These capabilities enable CMS to view and analyze massive amounts of data to gain actionable insights in real time.

About New Relic

New Relic is a software analytics company that delivers real-time insights to more than 13,000 paid business accounts. As a multi-tenant SaaS platform, the New Relic Software Analytics Cloud helps companies securely monitor their production software in virtually

any environment, without having to build or maintain dedicated infrastructure. New Relic helps companies improve application performance, create delightful customer experiences, and realize business success.

Learn More

- Learn more at newrelic.com.
- To learn more about the Centers for Medicare & Medicaid Services, visit: www.cms.gov.