

TTS IMPACT

Driving customer-centric culture transformation through cloud adoption

CMS partnered with Presidential Innovation Fellows (PIF)—a program within GSA’s Federal Acquisition Service’s Technology Transformation Services—to create a customer-centric culture through cloud adoption.



CENTERS FOR MEDICARE AND MEDICAID SERVICES’ STORY The Centers for Medicare and Medicaid Services (CMS) is the agency within the U.S. Department of Health and Human Services (HHS) that runs the nation’s major healthcare programs. CMS oversees programs including Medicare, Medicaid, the Children’s Health Insurance Program (CHIP), and the state and federal health insurance marketplaces. The CMS vision is to become the most energized, efficient, customer-friendly agency in the government’s more than 90 programs and more than 3,000 grantees.



THE CHALLENGE

To do that, CMS wanted to create a secure and automated cloud infrastructure and an ecosystem that helped application teams migrate to the cloud. The agency knew doing so meant more than cloud adoption; it meant embracing a new way of work.

CMS’s journey to the cloud started in 2013 with the CMS Office of Communications (OC) and Office of Information Technology (OIT). Since CMS were early federal cloud adopters, neither they nor their contractors had extensive cloud experience. Through what they called the “CMS Cloud,” the agency planned to reduce time to acquire cloud services, migrate systems to the cloud, operate systems in the cloud, and increase cloud awareness.

CMS knew there would be challenges like time, cost, migration complexity, and upskilling internal users. However, instead of deterring cloud adoption, these challenges highlighted the need for a human-centered, holistic approach.

As the CMS team assessed challenges, they identified the following cloud strategy priorities:

- **Data protection** was the most important factor for CMS as people trust them with their beneficiary information. For this, CMS chose a commercial cloud service provider to ensure that their data was protected.
- **Data center consolidation** was a priority because CMS did not want to worry about hardware refreshes. CMS considered periods of open enrollment for programs like the Affordable Care Act and Medicare. When people are getting or changing insurance, the CMS infrastructure faces pressure. CMS wanted to ensure it could scale cloud usage and cost up and down according to “seasonal” usage. In a traditional data center, CMS has always had to buy for peak capacity that is not needed for the rest of the year and switch data centers between workloads.
- **Culture change** was also required. Cloud computing requires a different way of working, and change is not always easy. The beginning had less automation and more steps in the workflow. They inherited security controls. Working with the cloud was not only about providing better hosting services to end users, but also showing the value of the hosting teams moving to the cloud.



THE SOLUTION

The agency designed the CMS Cloud Program to provide a reliable cloud platform for Medicare and Medicaid applications. They did this by using up-to-date technology that both scales when demand increases and frees CMS staff time to focus on beneficiaries' and providers' needs.

CMS partnered with the [Presidential Innovation Fellows \(PIF\)](#) program to deliver and scale program success using human-centered design (HCD). To dive into their human-centered approach, PIF embedded these HCD best practices across all aspects of cloud adoption:

- Start with the problem
- Learn actual user needs directly from users
- Align with business needs and constraints
- Prototype or build by designing and testing potential solutions to learn the best path forward
- Test with users directly, involving real humans at every step, and
- Repeat this testing as CMS continued to build out and test the best, proven approaches

The CMS and PIF partnership championed and made human-centered design operational at the technical program level and integrated it into the design, communications, and marketing functions. They co-created the CMS Cloud Technical Leadership Maturity Model that was scaled and embedded into the Office of Information Technology's new Workforce Resilience Program. Additionally, PIF built and scaled best and next practices for design operations, enabled process improvements, and infused a customer-centric vision and storytelling into the program.

An important part of healthcare delivery is understanding customers—it's essential for proper demand management. CMS applied human-centered principles like customer discovery to the entire cloud program. As momentum continued, more and more teams across the agency trusted the cloud program (both its deliverables and its process). With strong organizational trust, CMS began receiving inbound interest in cloud adoption—purely through word of mouth!

When this work first started, the agency didn't have many cloud service providers (CSPs) to choose from. CMS wanted to ensure that their CSP choices—and data center consolidation—met the agency's unique needs. After surveying internal customers and doing more research, CMS was able to identify each CSP's strengths in real user needs and periods of high demand, like open enrollment. Over time, they developed a scalable model that would allow CMS to only pay for what they used.

For CMS, this solution was never solely about the technology; it was also about enhancing public servants' skill sets. It was technical modernization and process modernization.

MAKING MODERN TOOLS AND BEST PRACTICES THE EASIEST CHOICE



CMS Cloud application teams have access to and are using modern tools and technologies that enable (and bake in) best practices without having to maintain the tools.

35 shared services available in the CMS Cloud service catalog

"The Cloud team has been phenomenal, they have and continue to help us resolve problems fast, and when we didn't know what to ask for, or whom to ask, their guidance has been critical to us keeping the lights on and the ball moving!" — CMS Cloud customer piloting the new **Cloudbees Core shared service**

REDUCING TIME TO ATO TO SPEED UP TIME TO DELIVERY



Shifting security compliance burden to the platform to reduce application team Authority to Operate (ATO).

ATOs on CMS Cloud takes roughly **3 months**, compared to the 6 to 18 months ATOs have traditionally taken in government ([source: 18F](#)). Customers using our shared services fully inherit **201** security controls from CMS Cloud, share responsibility for **125** controls, and are fully responsible for only **77** controls.

"In my previous project, outside of CMS, I had to spend 2 years to get an ATO. I was actually ready to ship in the first month, so imagine you have your code ready and you can't ship for 2 years. That's not really reasonable. Especially given the people that we are serving as public servants...So here, it was very attractive, because I was hearing that in a very short period of time, if I leveraged the General Shared Services, I could be up and running in a non-production environment very, very quickly, and that is very attractive." — CMS Cloud customer



THE IMPACT

Through this cloud implementation, CMS has gained skills across human-centered design and agile procurement that it can use across the OIT. CMS has been able to show what it means to have customers weigh in at every stage of their programs. The impact is profound and enduring:

- **Faster, cheaper delivery that meets user needs:** CMS now has end-to-end visibility into what they're receiving. It's a two-way approach: Users are teaching CMS what to deliver and what to prioritize, and CMS is teaching partner teams across the agency how to deliver customer-centric solutions that are also time- and cost-efficient.
- **Reducing Authority to Operate (ATO) time to speed up delivery:** CMS has been able to shift much of the security compliance burden to the platform to reduce the application team's ATO burden. ATOs on CMS Cloud now take roughly three months, compared to the [six to 18 months](#) ATOs have traditionally taken in government. Customers using our shared services fully inherit 201 security controls from CMS Cloud, share responsibility for 125 controls, and are fully responsible for only 77 controls.
- **Increase in team trust and engagement:** CMS staff find it easier to talk about their issues and concerns. If something stops working, the team understands the "why," which they didn't before. The cloud enables teams to build their own applications while staying compliant and following regulations. CMS protects their internal customers by providing their services, thereby delivering a better product for the public.
- **Making modern tools and best practices the easiest choice:** CMS Cloud application teams have access to and are using modern tools and technologies that enable (and bake in) best practices without having to maintain the tools.
- **Financial savings:** CMS no longer needs a larger marketing strategy for cloud adoption, which has been hard to keep up with. Additionally, they changed the model for how they charge for their work, which saves a lot of money. They are now working on how to make their services more consumable and automated so that their processes are easier and their services are even cheaper and faster.

Ultimately, CMS experienced an agency-wide transformation; they were able to completely change their program and influence CMS and OIT. They proved that healthcare delivery and delivery management could be done with scalable, agile, and human-centered design methodologies. With executive-level support from the top down, their partnership has given permission to fail fast and learn. Failure is inevitable when trying something different, and the team had room to accept that.

"Presidential Innovation Fellows have been an invaluable resource in embedding human-centered design across our program, ensuring that the technology we're designing is not just functional, but also desirable. Working shoulder-to-shoulder with the PIF, we were able to leverage their domain expertise and gain a rich understanding of who our customers are and what's most valuable to them. Instead of choosing CMS by default, we've designed a culture and delivered programs where people we work with want to choose CMS."

— Jerry Kuhn, Senior Technical Advisor, Office of Information Technology, Centers for Medicare and Medicaid Services (CMS)

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FOCUS
AREAS



Identity



Artificial
Intelligence



Accelerator



Experience



Cloud



Data