

## Transforming access to federal healthcare through agile modernization

CGI Federal's digital and cloud services for the U.S. Centers for Medicare & Medicaid Services help 58 million Americans make personalized healthcare choices

The Centers for Medicare & Medicaid Services (CMS) administers programs to protect the health and well-being of millions of American families through Medicare, Medicaid and the Children's Health Insurance Program (CHIP), improving lives and well-being. The programs also represent one of the largest expenditures in the U.S. federal budget:

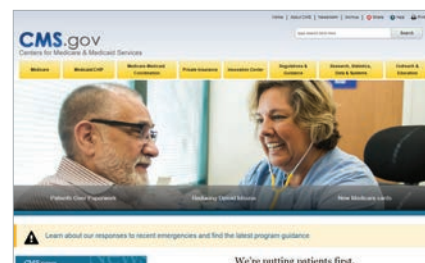
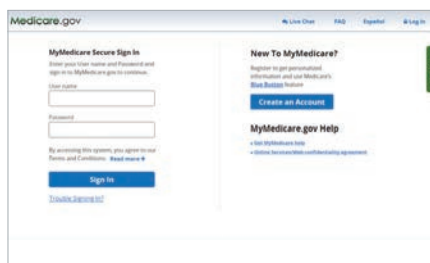
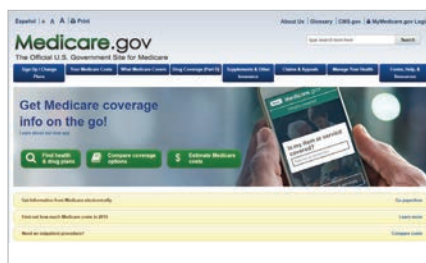
- **Medicare** is a health insurance program primarily focused on beneficiaries 65 years and older, those with specific disabilities and/or End-Stage Renal Disease (ESRD).
- **Medicaid** is a jointly-funded federal/state health insurance program for children, the aged, blind and/or disabled.
- **CHIP** provides low-cost health insurance to children of families that earn too much income to qualify for Medicaid, but not enough to afford private insurance.

Access to these programs is provided through three separate but intertwined websites administered by CMS: Medicare.gov, MyMedicare.gov and CMS.gov. Collectively, these portals act as the healthcare gateway for the American public, receiving approximately 500 million page views each year.

The successful administration of these sites is critical to the delivery of healthcare services for program participants. Continually transforming the way CMS builds and maintains the portals is paramount to the success of its three-pronged mission of outreach, education and service.

### Providing longstanding support for **CMS'** evolving needs

CGI Federal has partnered with CMS since 1999, supporting the development and maintenance of the agency's websites into a set of interconnected portals. CGI Federal's services help the agency optimize its public-facing, online presence to deliver healthcare information in a way that complies with federal legislative and executive mandates, promotes data transparency and accessibility, improves the customer experience, and empowers beneficiaries, caregivers, advocacy groups and other healthcare industry stakeholders to make informed decisions about the agency's various offerings.



### Medicare.gov, MyMedicare.gov and CMS.gov at a glance

- 58 million beneficiaries
- 500 million page views per year
- 20 year partnership between CMS and CGI Federal

## Advancing from siloed to synchronized sites through **agile development**

Creating, growing and maintaining the CMS websites has been an immense undertaking. Early on, the sites were comprised of a handful of static, separate and compartmentalized pages. In order to fully serve the public, the sites had to transform from a basic presence to a set of interconnected portals that provide users with a 360-degree view of the agency's various programs.

CGI Federal introduced iterative and rapid development to the process in the early 2000s, allowing the sites to respond to the constant legislative changes that are inherent to the healthcare industry. To overcome transition challenges, change management techniques such as coaching helped all stakeholders understand the benefits of an incremental and continuous delivery process. With this groundwork successfully laid, CGI Federal formalized the iterative approach.

During this period, CMS began to see tangible benefits such as faster response to time-sensitive healthcare policy changes and positive impacts on the user experience. CGI Federal was able to increase system performance across all three websites, exceeding CMS's defined page response time.

CMS fully embarked on its digital transformation journey in early 2011 when CGI suggested and implemented responsive design web patterns, which resulted in a 400% increase in mobile device traffic. The agile development model promotes an even faster response to new and changing requirements, while still providing process rigor. CGI Federal then moved to incorporate industry-leading DevOps practices to facilitate shorter development cycles, promote increased deployment frequency, enable more dependable releases, monitor and sustain application up times to 99% and ensure precision alignment with CMS's business objectives.

As a result, CGI Federal have increased the total releases by 47% year over year, and some applications are released after every 2-week sprint. Legislatively-mandated enhancements can be executed in shorter release schedules if necessary, sometimes in just days.



### Value delivered

- User-centric, integrated portal environment
- 400% increase in mobile device usage through responsive design
- Record number of online open enrollments for past two years
- Scale for additional 36,000 concurrent users in Medicare open enrollment
- System performance above service level agreement (SLA) requirements
- 50% faster release cycle times through agile and DevOps practices
- 47% increase in total number of releases

## Providing tools to make **personalized healthcare** choices

CGI Federal has helped CMS continually modernize and improve its websites over two decades. Collectively, the sites now include a suite of interactive tools to help users compare nursing homes, hospitals, rehabilitation facilities and providers based on a number of different quality measures that users can choose. Recent enhancements include a "What's Covered" mobile app (so users can quickly see whether Medicare covers a specific medical item or service) and the ability to pay Medicare premiums online. Combined, these capabilities provide convenient, highly customizable, up-to-date relevant information.

These enhancements also have helped the CMS portals become a trusted place where eligible program participants can sign up, file for claims and check the status of payments related to their healthcare needs. More importantly, the family of CMS portals collectively performs more like a personal healthcare concierge, helping individuals fulfill their particular, complex and ever-evolving needs.

The portals act as a fully-integrated system that guides individuals to make choices that will benefit them the most—shattering the old notion of a "one-size-fits-all" federally-managed healthcare system.





## Record online open **enrollments**

The goal of these transformational efforts is for more people to have healthcare coverage. Online enrollment through the website continues to trend upwards, with record enrollments in each of the last 2 years. More people are visiting the online enrollment through the site each year, increasing by 4.2% in the last year alone and leading to a 5.5% increase in beneficiaries successfully enrolling in a plan last year. These factors work together to help reduce call center volumes, thus reducing costs.



## Enabling metrics-based decisions via **AWS Private Cloud** services

Following the successful implementation of full agile methodologies and DevOps practices, CMS concentrated on introducing new tools and functionality. In recent years, the emphasis has been on modernization and cloud adoption. CGI Federal drove the initial effort to migrate CMS systems and websites to an Amazon Web Services (AWS) Private Cloud environment instantiated and maintained by CGI Federal (in collaboration with other CMS contractors).

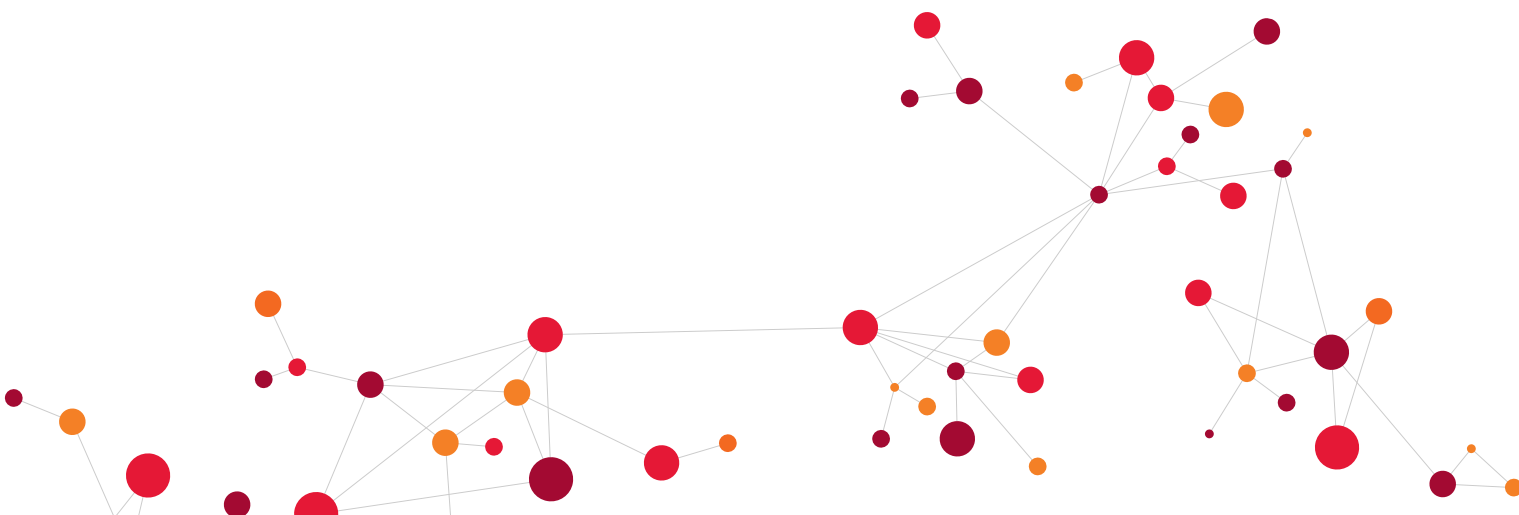
After the migration, CGI Federal consolidated the number of servers by roughly 50% and helped CMS embed DevOps practices into their methodologies by using 8 of the 13 “plays” defined in the U.S. Digital Service’s Digital Playbook—an effort to improve the success of federal digital services projects by drawing on successful practices from the private sector and government.

The new platform provided the impetus for CMS to move from older, legacy applications to modern, open-source technologies and use a fully hosted environment with CGI Federal as the source for implementing processes, deployments and developments. These changes led to significant cost reductions compared to enterprise data centers—a major goal for CMS. The approach also supports 36,000 additional concurrent users during the Medicare open enrollment period. In collaboration with CMS and other partners, CGI Federal further optimized costs through continuous monitoring and ongoing cost reduction measures.

The cloud migration also allowed CGI Federal to collect, analyze and act upon verifiable metrics on how systems are performing and where there are bottlenecks, ensuring a focus on the right fixes as opposed to making educated guesses. Now, CMS and its internal stakeholders not only know exactly where the system needs help, but also have gained insights into how users make their healthcare choices.

## CMS and CGI Federal: A partnership to advance federal **healthcare initiatives**

With the numerous technological refreshes over the last two decades designed to provide users with highly relevant information, CMS is now focused on a user- and web-centric approach, best practices web design and promoting a self-service channel. Thanks to a solid strategy, agile approach, the right tools and CGI Federal as a trusted digital partner, 58 million people can now choose healthcare based on what’s right for them in each individual circumstance.



## **CGI Federal's Emerging Technology Practice is the "secret ingredient" of digital transformation**

Successfully executing a complex project often requires access to innovative capabilities, specialized skillsets and knowledge of emerging tools and techniques that go beyond a project's day-to-day activities. In the case of the CMS websites project, CGI Federal's Emerging Technology Practice (ETP) provided many of these capabilities.

ETP serves as a constantly evolving repository of emerging solutions and services. Its practice areas align with changing market trends and new areas of client focus to deliver transformative solutions that fulfill client needs. ETP also keeps CGI Federal at the forefront of technological innovation by focusing on emerging technologies. The CGI Federal CMS websites project team regularly taps into ETP's specialized resources—such as the cloud and security practices and user interface design team—to collaborate on innovative solutions.

## **CGI Federal's end-to-end transformation capabilities for government**

CGI Federal is a wholly owned subsidiary of CGI, one of the largest IT and business consulting service providers in the world. Founded in 1976, CGI operates in hundreds of locations across the globe and delivers an end-to-end portfolio of capabilities, from IT and business consulting to systems integration, outsourcing services and intellectual property solutions.

Government organizations are under pressure to digitally transform their business models to meet increasing user demands. CGI Federal helps harness the power of digital technology to help clients become customer-centric, agile, value-driven organizations uniquely qualified to meet or exceed stakeholder expectations.

Digital initiatives powered by CGI Federal enable agencies to integrate services across the enterprise and benefit from advanced technology in automation, the Internet of Things, cloud, cybersecurity and analytics to achieve successful transformation initiatives. We help clients assess their transformation objectives, develop and implement their roadmaps and measure progress and return on investment.

To learn more about our end-to-end digital transformation capabilities, contact CGI Federal at [info@cgifederal.com](mailto:info@cgifederal.com).

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CGI works with clients through a local relationship model complemented by a global delivery network to help clients achieve their goals, including becoming customer-centric digital enterprises.