THE U.S. DIGITAL SERVICE

Report to Congress

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Introduction

The United States Digital Service (USDS)

was established in 2014 to tackle the federal government's most critical public-facing digital services. From veterans receiving appeals responses in a timely manner to citizens accessing more government services online thanks to secure identity proofing, USDS is focused not only on improving how the American people can interact with their government online, but on transforming that experience to help build the people's trust in government.

With funding from the Information and Technology Oversight and Reform (ITOR) Fund, USDS was able to hire more than 200 individuals to serve for limited tours of duty in government to work toward this transformation. USDS talent ranges from Silicon Valley engineers who hail from more than 50 top technology companies to professional 'bureaucracy hackers' from within the Government and experienced procurement specialists.

We're capitalizing on opportunities to partner directly with agencies and others in the Federal space to untangle the most vital government services on which Americans rely. USDS continues to prioritize projects based on three criteria: what will do the greatest good for the greatest number of people in greatest need, how effective and cost-efficient the USDS investment will be, and the potential to use or reuse a technological solution across the Government.

As of June 2017, USDS has active teams at seven federal agencies: the Department of Defense, the Department of Veterans Affairs, the Department of Homeland Security, the Department of Health and Human Services, the Department of Education, the General Services Administration, and the Small Business Administration. We've done previous work at the Social Security Administration, the Department of State, the Department of Justice, and the Department of Treasury.

USDS continues to report directly to the acting Deputy Director of Management at OMB and is a member of the newly formed American Technology Council. USDS is also actively engaged and working with the Office of American Innovation at the White House. This affords USDS the opportunity to continue our critical work while aligning our projects with broader efforts to identify cost savings and make government more effective.

For the most up-to-date cost savings information, please visit itdashboard.gov/drupal/cost-savings.

Matt Cutts
Acting Administrator of the U.S. Digital Service

High Priority Projects

6 | Streamlining VA Appeals Processing

7 | Simplifying Veteran-facing Services through Vets.gov

8 | Login.gov (Consumer Identity)

9 | Modernizing our Immigration System

10 | Modernizing Small Business Certification Programs

11 | Advisor Network (ANET)

12 | Identifying Vulnerabilities in the Department of Defense Website

13 | Defense Personal Property System

14 | Congressionally Mandated Medicare Payment Changes

15 | Transforming Federal IT Procurement through Digital IT Acquisition Training

Our Mission

The U.S. Digital Service is a network of teams working across the Federal Government that uses design and technology to deliver better government services to the American people.

To fulfill this mission, we focus on:

Transforming critical services

We're dedicated to measurably improving our nation's most important public-facing services. We help to manage technology projects relying on (1) a user-centered design framework to prioritize user needs; and (2) modern software development practices to enable iterative development and the ability to rapidly respond to change and feedback.

Rethinking how the Government buys digital services

We work to modernize procurement processes and practices for the digital era. Just as they do today, skilled contractors will continue to deliver the majority of the Government's digital services.

Expanding the use of common platforms, services, and tools

We partner with agencies to identify and implement shared tools and services to address common technical issues and usability challenges across the government.

Bringing top technical talent into public service

In support of these goals, we recruit top technologists for term-limited tours of duty with the Federal Government. We hope to encourage a tradition of public service in the technology industry that will support the ongoing improvement of government digital services.

Our Values

Hire and empower great people.

Find the truth. Tell the truth.

Optimize for results, not optics.

Go where the work is.

Design with users, not for them.

Create momentum.

Veterans Affairs (VA)
Streamlining VA Appeals Processing

THE CHALLENGE

When veterans have a disease or injury related to service, they may file a claim for disability compensation with the Department of Veterans Affairs (VA). If a veteran is unsatisfied with the outcome, the decision can be appealed. As of early 2017, there were more than 450,000 pending appeals in the VA. Appeals take, on average, three years to be resolved. For those appeals that are resolved by the Board of Veterans' Appeals (Board), veterans are waiting, on average, six years for resolution. Appeals are tracked by the Veterans Appeals Control and Locator System (VACOLS), which was created in the late 1980s on now-outdated infrastructure. Since VACOLS is not integrated with other systems and relies on manual entry of data, its limitations can result in lost appeals. Despite attempts to develop a successor, VA continues to rely upon this dated system.

THE SOLUTION

The Digital Service team at VA (DSVA) has been working with VA to release one component of a modernized system, Caseflow, at a time. Rather than simply replicating the old system with modern technology, each new component of Caseflow is evaluated on the basis of timeliness and accuracy to determine if processes should be reworked during development. This agile versus waterfall approach to IT delivery ensures that new functionality is useful and meets users' needs.

The DSVA deployed the first component of Caseflow (Caseflow Certification) in April 2016. This application ensures that the Board has all requisite information before they review a case, and that claims system data matches appeals system data.

UPDATE

In October 2016, a second new component, eFolder Express, began rolling out to improve the efficiency of retrieving appeal documents. This tool is now used to download more than 800,000 documents per month. At this rate, the VA is projected to save 17 years worth of productivity annually.

Caseflow Dispatch, the latest component to launch in March 2017, facilitates the transfer of appeals decisions from the Board back to the VA agency that processed the original claim to ensure that benefits are processed or remand orders completed. Previously, dispatched decisions were inconsistently tracked and processed, resulting in a subset of cases experiencing long delays. In April 2017, following the tool's launch, that subset of cases saw their time to claim establishment decrease to 8 days from 25 days at the beginning of the year.

In April 2017, DSVA began pilot testing Caseflow Reader, an evidence review tool for attorneys and judges. Before issuing a decision, Board attorneys must review every document in a veteran's case file. As review and annotation of documents constitute a majority of the time spent issuing an appeals decision, improvement to the efficiency of this task will increase the output of the Board.

DIGITAL SERVICE at VA

THE CHALLENGE

Digital services offered by VA — from obtaining prescription refills to applying for healthcare benefits- are scattered across hundreds of public-facing websites. This forces veterans to navigate disparate online systems, remember multiple usernames and passwords, and contend with long pages of legalese. To complicate matters, the majority of the 532 online VA forms are fillable PDFs that are not accessible with modern browsers. High demand features are accessible only 76% of the time, compared with the industry standard of 99.99%. Many services are still accessed using paper applications, including 90% of health care applications and 86% of claims. VA call centers receive 65 million calls a year.

THE SOLUTION

The Digital Service team at VA (DSVA) launched Vets.gov in November 2015 to streamline a veteran's experience to discover, apply for, track, and manage the benefits they have earned in one place using any device. Vets.gov has one login that meets current NIST security standards, is mobile-responsive, and optimizes veteran self-service and automation through improved design, increased ease-of-use, and plain language. Since the initial launch, the team has iterated on the site through 50 continuous product launches and reduced release cycle times of 7 days compared to the previous 90 days.

UPDATE

Since November of 2016, the team has launched eleven new products, including a check claim status tool, an education benefits application, and enhancements to a GI bill comparison tool, which enables veterans to compare GI benefits across schools and easily apply for or transfer benefits online. The DSVA team is continuously adding new capabilities to Vets.gov, using direct feedback from veterans to ensure ease of use.

In addition to being able to check claim status on Vets.gov, by this summer, veterans will be able to download health records and check appeals status online.
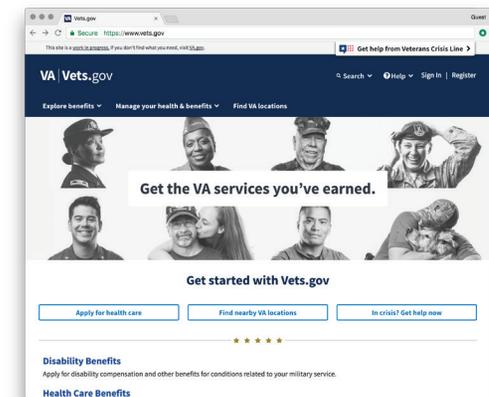
General Services Administration (GSA)
Login.gov (Consumer Identity)

THE CHALLENGE

Many public-facing federal websites require users to create login accounts for access. Not only is there little consistency between the thousands of existing login systems, these differences touch on all aspects of the service, from ease of use to security. Maintaining multiple user accounts exposes users to greater risk, increases government spending, and creates a negative user experience. Many agencies are additionally constrained in the services they can offer online due to a lack of secure identity proofing.

THE SOLUTION

USDS and the General Service Administration's 18F have been building a common identity platform, known as login.gov, to improve and secure the experience of interacting with government online. The two groups teamed up with technologists from across the federal government to take advantage of previous efforts toward this goal. Login.gov has been built to make accessing government benefits and services easier, faster, and more secure.

UPDATE

GSA successfully deployed login.gov in April 2017. Login.gov safeguards user data through mandatory two-factor authentication and account recovery services. In addition, USDS and 18F developers work with private sector companies on an ongoing basis to adhere to constantly emerging standards in privacy-protecting authentication. Login.gov is built using the most modern technologies, ensuring that developers can incorporate the solution into existing systems within hours rather than weeks.

In May 2017, the login.gov team successfully engaged with Customs and Border Protection at the Department of Homeland Security, which became the first agency to use login.gov for its public-facing recruitment website. The Social Security Administration, Department of Education, and Railroad Retirement Board have also signed MOUs to be the next users to integrate login.gov services for their users throughout 2017 and early 2018.

Looking forward, login.gov estimates that the federal government has the potential for significant savings by consolidating consumer identity under login.gov, while improving access and usability for each and every American. GSA is partnering with agency Chief Financial Officers to estimate consumer identity costs across the federal government to document the full potential return on investment for this initiative.

Department of Homeland Security (DHS)
Modernizing our Immigration System

THE CHALLENGE

U.S. Citizenship and Immigration Services (USCIS) processes millions of immigration requests a year through a paper-based system that results in long waiting periods for applicants who have little visibility into their applications' statuses. When the agency's five-year Electronic Immigration System (ELIS) modernization project ran into a host of challenges, USDS joined the USCIS team to help with implementation.

THE SOLUTION

The DHS Digital Service has been supporting the release of USCIS's most critical digital services including ELIS – the enterprise software that will support adjudication of digitized immigration forms, and myUSCIS — the authenticated user experience which will allow applicants to apply and track their cases online.

UPDATE

USDS continues to build upon its strong partnership with USCIS to support the creation of a digitized system for immigrant applicants. The tools and features under development include the digitized interactive version of the most critical USCIS forms, and a case activity page for applicants. Many of these tools had soft launches in 2017 and will be adopted as the primary entry point for applicants seeking naturalization once USCIS transitions from the legacy CLAIMS4 system to ELIS.

To ensure the launch and adoption of ELIS, analysts needed to have confidence that the results of applicants' background checks were accurate. Currently, the best method of ensuring accuracy is a manual follow up after a background check has been run, which is a time- and labor-intensive process that has the potential to introduce human errors. To solve this problem, USDS developed the VERIFI tool, which automates the validation of background checks.

Overall, USDS has also helped USICS institute organizational changes that align toward building better digital services, aligning workflow and governance to promote efficiency and effectiveness, and procuring design services for better user experience. These organizational changes manifest as closer interactions between USCIS's directorates, bringing in contracted designers through a new USDS-led procurement, helping orchestrate a USCIS internal restructuring to put user needs first, and shifting USCIS's software development paradigm to focus on working with users rather than for them.

Small Business Administration (SBA)
Modernizing Small Business Certification for Government Contracting

THE U.S. DIGITAL SERVICE

THE CHALLENGE

The federal government, the largest procurer of goods and services in the world, is required to set aside contract opportunities for small businesses. The SBA works to expedite small businesses' access to these opportunities by helping them document and certify their status. However, because most of these status determination applications had not been updated since they were first implemented, and because much of the underlying hardware and software is now obsolete, the user experience has become drastically worse. For example, some services require businesses to download the forms, fill them out, print them, rescan them, and upload a long list of documents, while others require mailing reams of paper. It is costly and very difficult for SBA analysts to review this volume of paperwork and transfer paper across offices while using multiple systems to perform analysis.

THE SOLUTION

The certify.sba.gov (Certify) platform is a critical priority for the SBA. USDS began working with the agency in February 2015 to develop the platform while streamlining certification processes. The Certify system replaces current legacy systems, eliminating paper based mailed applications, creating a more effective and efficient structure to determine eligibility for small business applicants. Additionally, the new system will enhance search and reporting capabilities, allowing other federal agencies access to small business communities across the nation.

UPDATE

By the end of 2016, USDS had worked with the SBA on six major product launches on certify.sba.gov and more than 32 product updates. Every launch and update incorporated user research, automation, Section 508 compliance, and the U.S. Web Design Standards. One of these launches, the Women-Owned Small Business certification system, resulted in a 176% increase in participation thanks to the modernization effort, with more than 8,000 firms now participating. In November 2016, the new All Small Mentor-Protégé certification program was incorporated into certify.sba.gov and started accepting applications. By early 2017, SBA started accepting electronic 8(a) documents, and more than 144,000 documents have now been electronically submitted across all programs.

Additionally, a brand new version of the Historically Underutilized Business Zones (HUBZone) map was soft-launched in March 2017 and launched for public preview in June 2017. The HUBZone map, which helps small businesses in urban and rural communities understand if they qualify for a HubZone preference for Government contracts, now features Qualified Disaster Areas, GeoSpatial open source technology, Section 508 compliance, and ensures map updates take weeks rather than months. A new advanced street view in the HUBZone map provides additional detailed information to SBA analysts in advance of site visits, allowing them to know whether a site visit is necessary, and if so, when and how best to conduct them.

Department of Defense (DoD)
Advisor Network (ANET)

THE CHALLENGE

Hundreds of NATO military and civilian advisors are deployed to Afghanistan each year for the Train, Advise, Assist mission of Operation Resolute Support. This mission relies on a software system called the Advisor Network (ANET), to track and understand advisor engagements with their Afghan government counterparts. The system also facilitates strategic decision making for future mission development. However, the incumbent system suffered large gaps in connectivity, decreased usage, poor performance, and flawed software development practices. These issues had a harmful impact on leadership's ability to understand the advising landscape and gauge mission effectiveness, and on the continuity of knowledge between advisors transitioning in and out of theater.

THE SOLUTION

The Defense Digital Service (DDS) began development efforts in November 2016 to replace the legacy system with a new product built using modern software development standards. DDS spent 15 weeks building ANET 2.0 with small teams on rotation to Afghanistan. They worked directly with NATO advisors and leadership to build the system's replacement in theatre and in conjunction with a team at the Pentagon. ANET 2.0 was fully deployed on a classified network to roughly 800 advisors across Afghanistan in March 2017 and the long-term maintenance/sustainment was handed over to NATO developers based in Europe. The unclassified ANET 2.0 source code was also released on Code.mil, the DoD's first free and open source platform launched by DDS in February 2017.

DDS is currently working on the broader adoption of ANET to support security cooperation missions supported by the DoD across the globe.

Department of Defense (DoD)
Hack the Pentagon

THE CHALLENGE

The DoD spends billions of dollars every year on information security but had not sought to find security vulnerabilities through bug bounties, a security approach that has gained significant traction in the private sector. Bug bounties are a private sector crowd-sourced security model used to identify vulnerabilities in both public-facing and internal assets. Bug bounties also allow private citizens to harness their diverse range of talent to contribute and strengthen our nation's security posture in exchange for monetary reward for finding security issues.

THE SOLUTION

DDS partnered with the DoD to launched the first federal bug bounty, Hack the Pentagon, in Spring 2016. The success of Hack the Pentagon resulted in two follow-on activities: first, the DoD established its first Vulnerability Disclosure Policy, which created a safe, secure, and legal avenue for private citizens worldwide to report vulnerabilities found on public facing DoD websites and applications. It also serves as a bridge between the DoD and security researcher community to work openly and in good faith together to identify and disclose vulnerabilities.

Second, the DoD issued a multiple-award Indefinite Delivery, Indefinite Quantity (IDIQ) contract vehicle to Silicon Valley security firms that enable all DoD components and military services to launch their own bug bounty challenges against their respective assets. Establishing this contract vehicle is part of a broader effort to normalize and foster the adoption of this crowd-sourced approach to security across DoD. The contract vehicle also serves as a model for other federal agencies to follow and implement as well. The first contract with HackerOne focuses on public-facing DoD websites such as military recruiting services. The second contract with Synack is reserved for more sensitive, internal DoD assets and registration for these challenges is limited to highly vetted researchers within the Synack hacker community.

UPDATE

The first challenge with Synack launched on January 11, 2017, against an internal DoD file transfer mechanism that is responsible for the transport of data between various sensitive networks. Eighty carefully vetted researchers within the Synack community logged more than 2,500 hours to uncover a number of extremely critical issues that are undergoing remediation.

The Department of the Army and the Department of the Air Force have launched their own challenges, "Hack the Army" and "Hack the Air Force," under the HackerOne contract. "Hack the Army," which ran from November 30, 2016, to December 21, 2016, targeted Army recruiting websites and yielded vulnerabilities that, if exploited in tandem, could have led to a serious network or data breach. 371 registered researchers reported a total of 118 vulnerabilities previously unknown to the DoD. The "Hack the Air Force" challenge commenced on May 30, 2017, and will conclude by June 23, 2017 and vulnerabilities are undergoing remediation.

Department of Defense (DoD)
Defense Personal Property System

THE CHALLENGE

The Defense Personal Property System (DPS) is USTRANSCOM's logistics system that moves shipments of personal goods of more than 1.3 million service members, 700,000 civilians, and their families. However, DPS crashed after a March 10, 2017, production update. After the crash, the site began experiencing unacceptable standards of performance, with latency of over five minutes, which the Defense Digital Service (DDS) team considers comparable to a non-functioning site. The poor usability and functionality of DPS is a major stress factor for military and civilian families who are in the midst of frequent relocations across the globe, and contributes to numerous failures and delays in delivering and receiving family household goods.

THE SOLUTION

DDS deployed a Rapid Response Team (RRT) to provide immediate remediation to DPS, and and rescued the site within four days. After DDS' RRT quick remediation, DPS users were reporting significantly reduced latency rates with more than 4,500 concurrent users — the largest amount of concurrent users DPS has ever supported. Most importantly, shipment requests that were successfully requested and scheduled increased from 16% to over 99%.

During the recovery of DPS, DDS helped USTRANSCOM to optimize their database and took steps to ensure that the traffic from automated computer scripts written by third parties would not impact the system performance for service members and their families. In order to prevent traffic from these scripts from consuming all available server resources, DDS helped staff implement two tools capable of throttling automated script traffic, as well as the ability to blacklist specific IP addresses being used by overly aggressive bots. These steps better distributed load to the system, freeing up servers to handle more overall traffic, resulting in increased speed for users. Early metrics indicate that third party services are adapting their behavior to the new system rules, and DPS has been significantly more stable since March 27, 2017, just two weeks after the crash.

DDS continues to work with USTRANSCOM to modernize and to evolve the DPS system into a system on par with private sector sites in terms of user experience and performance.

Health & Human Services (HHS)
Congressionally Mandated Medicare Payment Changes

THE CHALLENGE

In April 2015, Congress passed the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) to change the way Medicare pays doctors and other clinicians in order to reward value of care over quantity of care. Prior to implementing MACRA, providers and their staff had to navigate a network of CMS systems that were disjointed, complicated, and rarely synchronized. Doctors had incentives for better performance – but had trouble understanding scoring rules across multiple programs or feedback on their specific performance, which is given to them in lengthy PDFs.

THE SOLUTION

Implementation of the MACRA legislation required significant changes in how Medicare measures the value of care doctors provide. HHS' Centers for Medicare and Medicaid Services (CMS) engaged USDS to bring best practices and modern approaches to the implementation of the transition to ensure it was clear and effective. Since launching a plain language website in October 2016, USDS has continued to support CMS to improve the Quality Payment Program (QPP) through better physician feedback, clearer program participation instructions, and a customer-driven approach that helps partner with doctors nationwide on behalf of beneficiaries.

UPDATE

In April 2017, USDS supported the launch of an on-line tool on qpp.cms.gov that reconciles data from many disparate data systems and leverages user-centered design. The tool helps doctors determine if they are required to participate in the Merit-based Incentive Payment System by simply providing their National Provider Identifier, an identifier doctors regularly use when billing CMS.

USDS has also developed and begun the implementation of an Application Programming Interface (API) strategy that will reduce the cost and burden of participating in CMS programs by enabling the market to build software that interacts directly with Medicare systems and data. The initial API opened quality measures data and led the private sector to develop new tools—including an iPhone app to look up QPP measures—within a week of going live. USDS is now collaborating with the market to develop submission and scoring APIs for the QPP that will replace manual processes, provide real-time feedback and scoring, protect sensitive patient information, and create a platform for building QPP-related solutions. A public test version is available now and in use by over two-dozen software development firms, and USDS will make the finished version available by the end of 2017.

Finally, USDS worked with CMS to award an agile Blanket Purchase Agreement (BPA) for small agile companies to support QPP development efforts. Unlike traditional procurements, many task orders in this BPA require demonstration of working software prototypes as part of the competitive process.

Transforming Federal IT Procurement
Digital IT Acquisition Training

THE CHALLENGE

Government IT acquisition fails to keep pace with fast-changing technology largely due to a reliance on waterfall development methods where requirements are defined and documented in full before any development or user testing takes place. When agencies use inflexible, multi-year contracts, it becomes very difficult to build user-friendly, effective digital services. In 2016, a digital service training and development survey was administered to the 24 CFO Act civilian agencies and the results indicated that there were potentially 6,500 acquisition workforce members who needed digital service training. The Government can become a smarter buyer of technology once it establishes a specialized procurement workforce that understands the digital and IT marketplace, agile software development methodology, cloud hosting, and the "DevOps" practice of integrating system operations with application development teams.

THE SOLUTION

USDS's acquisition team and OMB's Office of Federal Procurement Policy (OFPP) hosted a prize competition on Challenge.gov to have a vendor develop and launch a digital IT acquisition professional training (DITAP) for federal contracting officers. Since the first six-month class launched in October 2015, 54 contracting professionals successfully completed the training and development program pilots. These professionals are now working in their agencies as advisors or contracting officers on various digital service initiatives, including Vets.gov and Sam.gov. The information gathered in this program is being used to finalize the competencies that will be used as the basis for the FAC-C Core-Plus Digital Service Certification, which is expected to be finalized and made available by October 2017.

UPDATE

USDS and OFPP are working to expand and scale the DITAP development program throughout the federal government. Adhering to the iterative inspiration of this initiative, the goal is to get an initial commitment from at least one agency training institution and two industry partners to launch their own version of the development program by the end of this calendar year with potentially 90 acquisition professional enrollees. In order to facilitate this, all of the course material was made publicly available in early June 2017 so that interested training partners can copy the course material. The open source EdX Learning Management System, a product of MIT and Harvard, will be provided to agencies and industry to maximize the content already created and validated in the first two classes. Open sourcing the material will lower costs of duplicating the program and speed up its adoption by other government and industry training institutions.

Alumni of the first two classes have formed a Digital Acquisition community of practice, which helps them support each other's groundbreaking efforts, and gives them access to technology subject matter experts. These alumni actively participate in conference panels and conduct training events within their home agencies. As a result of the DITAP course, 71% of the graduates have been approached by others in their agencies to apply their knowledge and 81% indicated increased visibility as a digital service professional.

USDS Major Accomplishments*

8/2014	USDS Founded
02/2015	myUSCIS launches
03/2015	I-90 Digitized Immigration Form
07/2015	e-QIP return to service at OPM
07/2015	Consular Consolidated Database return to service
08/2015	Immigration Fee Payment launches
08/2015	College Scorecard
09/2015	U.S. Web Design Standards
11/2015	Vets.gov (content)
03/2016	Certify.SBA.gov
04/2016	Hack the Pentagon
04/2016	VA Caseflow Certification
06/2016	Secure Access with IRS
06/2016	Digital Health Application for Veterans
06/2016	Digital Approval for Refugee Admissions launches
06/2016	Consular Consolidated Database stabilization/ securitization
07/2016	Transition to CBP Single Window for Imports/Exports
10/2016	CMS MACRA Rules website launches
10/2016	VA Appeals Caseflow eFolder Express

11/2016	Hack the Army
11/2016	Vets.gov (personalized accounts and integrations with VA systems for healthcare and benefit information)
11/2016	Online Accounts at IRS
12/2016	Second Digital IT Acquisition Professional Training course ends
12/2016	ACE Dashboard launches to report availability of CBP Single Window
02/2017	Code.mil launches
02/2017	Improved State's Visa Status Check
03/2017	Defense Personal Property System return to service
03/2017	VA Appeals Caseflow Dispatch
03/2017	Scanning/Saving Solution for USCIS Naturalization Paperwork
03/2017	Afghanistan Advisor Network (ANET) launches
04/2017	Trusted Traveler Comparison Tool
04/2017	Login.gov launches
04/2017	Merit-Based Incentive Payments System Eligibility Tool launches at CMS
05/2017	Online Passport Renewal Prototype
06/2017	Hack the Air Force

*USDS projects are iterative, so an initial Minimum Viable Product (MVP) is followed by many follow up launches not represented in this timeline