Who is the U.S. Digital Service
The U.S. Digital Service is a group that uses design and technology to deliver better services to the American people.
WHO WE ARE
WHO WE’RE HELPING

- Immigrants and Refugees
- Veterans
- Military Service Members
- Students
- Medicare/Medicaid Recipients
- Farmers
- Small Business Owners
HOW DO YOU ACHIEVE THIS?

No one has ever done that before.

I’m pretty sure that’s illegal.

No.
How long did it take us to spin up a single VM on one agency’s “private cloud”?

A. 1 hour  
B. 4 days  
C. 1 month  
D. 6 months  
E. 1 year  
F. Still not done
Six Months
Six Months: One VM

1. Study the contract to find the server and labor line items
2. Issue a task order for your exact hardware needs
3. Fill out the PAR form
4. Fill out the RAR form
5. Take Privileged User Training course
6. Wait for next Infrastructure Change Control Board (ICCB) meeting
7. Create network change request to ask for an IP address
8. Wait for next ICCB meeting
9. Create firewall change request
10. Wait for approval from RAC
11. Fill out DNS change request form
12. Wait for next ICCB meeting
13. Wait for the Infrastructure Change Moratorium to end
14. If anyone made any mistakes in the above, rinse and repeat
Why it feels like you’re working in 1999

THE STATE OF GOVERNMENT TECHNOLOGY
30+ years of tech debt
microservices on serverless?
The three hardest things in government

Hiring
Firing
Buying
The three hardest things in government

**Hiring**

- Everyone suffers with a poor hire
- Favoritism and Nepotism
- Capped salaries
- Lots of Paperwork!
The three hardest things in government

**Firing**

- Measuring performance is hard
- Political Protections
- Whistleblower Protections
- Lots of Paperwork!
Buying

My friend Joe will sell you chairs for $1 million each!
The three hardest things in government

Buying

We buy complex software services the same way we buy chairs.
Typical Government Launch

HEALTHCARE.GOV IS THE NORM
Typical Government Launch

Planned Years in Advance

- Requires mountains of paperwork
- Gradual launches and beta testing are unheard of
Why Login.gov

➔ 1000s of separate government login systems
➔ Login for healthcare.gov cost $100 million and caused 70% of the first year’s downtime
➔ Many services are not offered online because identity proofing is too hard
November 29, 2017

The WOSB and EDWOSB certification applications have been moved to www.certify.SBA.Gov. Firms interested in applying for the 8(a) Business Development Program should visit www.certify.SBA.Gov to submit an application. Current certified 8(a) firms can continue using the General Log-in System (GLS) to access BDMIS accounts for annual updates until early January 2018, when the annual update process will also be migrated to www.certify.SBA.Gov. Please contact the Certify Team at Help@Certify.SBA.Gov with questions.

SBA Account Login

User ID
Password

Login Clear

Text Only
Pull requests welcome

github.com/18F/identity-idp
Travel is the most frequent interaction with the Federal Government

- Customs & Border Protection (CBP) screened over 390 million passengers
- Have over 6 million members
Welcome to GOES - the Official U.S. Government Web Site

The Global Online Enrollment System allows registered users to enter their own applications for U.S. Customs and Border Protection (CBP) Trusted Traveler Programs, and approved members to edit their information as needed (mistakes on the original application cannot be corrected once the application is certified - your mistakes will need to be brought to the attention of CBP during your interview).

Once a completed application is certified by the applicant and the non-refundable payment is successfully processed, CBP will review it and determine whether or not to conditionally approve the application. If your application is conditionally approved, your GOES account will be updated to instruct you to schedule an appointment for an interview. Every individual who would like to apply for membership - children included and multiple applicants in one household - must create a separate account within GOES, submit a separate application, and schedule a separate interview appointment upon conditional approval.

For more information regarding the CBP Trusted Traveler Programs, please click on the logos below. Thank you for your interest in Customs and Border Protection.
9 Months working with Customs & Border Protection and their contract engineering team

➔ System Architecture
➔ Development process
➔ CI/CD Pipeline
➔ Usability Study
➔ Real time Monitoring and Metrics
Trusted Traveler Launch

YAY! Launch Day!
A phased launch!

(sort of)
“@puntenev I need you to get the site off the internet”

- Andy Brody, USDS Engineer via Slack
Fast forward to Monday

TTP Launch day, as seen from Login.gov
502 Bad Gateway
Problem 1: staying up at all
### Problem 2: third party API rate limits

<table>
<thead>
<tr>
<th>DATE UTC</th>
<th>SERVICE</th>
<th>DIRECTION</th>
<th>FROM</th>
<th>TO</th>
<th># SEGMENTS</th>
<th>STATUS</th>
<th>MEDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:22:14</td>
<td></td>
<td>Outgoing API</td>
<td>(202) 888-</td>
<td></td>
<td>1</td>
<td>Queued</td>
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</table>
Problem 3: the Heisenbug

Heisenbug (n)
A bug that disappears when one attempts to isolate it.

Named after the Heisenberg Uncertainty Principle
Oops, something went wrong. Please sign in again.

Sign in

Email address
user@example.com

Password

Next
Mission accomplished

CBP and GSA execute a successful launch
Digital Services Playbook

The American people expect to interact with government through digital channels such as websites, email, and mobile applications. By building digital services that meet their needs, we can make the delivery of our policy and programs more effective.

Today, too many of our digital services projects do not work well, are delivered late, or are over budget. To increase the success rate of these projects, the U.S. Government needs a new approach. We created a playbook of 13 key “plays” drawn from successful practices from the private sector and government that, if followed together, will help government build effective digital services.
Digital Service Plays: 1–6

1. Understand what people need
2. Address the whole experience, from start to finish
3. Make it simple and intuitive
4. Build the service using agile and iterative practices
5. Structure budgets and contracts to support delivery
6. Assign one leader and hold that person accountable

https://playbook.cio.gov
Digital Service Plays: 7-13

7. Bring in experienced teams
8. Choose a modern technology stack
9. Deploy in a flexible hosting environment
10. Automate testing and deployments
11. Manage security and privacy through reusable processes
12. Use data to drive decisions
13. Default to open

https://playbook.cio.gov
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https://playbook.cio.gov
Maslow’s
Mikey’s Hierarchy
of SRE needs
How do things stand now

PROGRESS SINCE LAUNCH
HOW DO THINGS STAND NOW

Trusted Traveler

➔ 50+ production pushes in first 30 days
➔ Over 500,000 completed applications
➔ Team addicted to the real time metrics and dashboards
LOGIN.GOV

Total accounts as of March 1, 2018
 HOW DO THINGS STAND NOW

Login.gov today

➜ A few million more users
➜ Traffic has grown another 10x
➜ Now powers sign in for USAJobs.gov
➜ Online identity proofing is next
This is just the beginning of what a government can do with technology that works.
PERFORMANCE YEAR 2017
The Submission Window is Open
You can update your data at any time during the submission window.

Start Reporting

PERFORMANCE YEAR 2018
Website updates are coming soon.

qpp.cms.gov
VA | Vets.gov

Get the VA services you’ve earned.

Get started with Vets.gov

Apply for health care
Apply for education benefits
In crisis? Get help now

vets.gov

Health Care Benefits

benefits for conditions related to your military service.
myUSCIS makes immigration simpler

my.uscis.gov

Try us on mobile

You can use myUSCIS anytime and on any device.
Thank you.

usds.gov/join

Andy Brody  
@alberge

James Punteney