

Beyond the HealthCare.gov fix

Making better government software



Paul Smith · CTO and co-founder, Ad Hoc
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Chi Hack Night

Recommended by Hunter Walk, Joe Germuska, and 511 others



Steven Levy
Editor of Backchannel. Also, I write stuff.
Jul 19 · 26 min read

Star Spangled Geeks

To the dismay of government contractors, the United States Digital Service is gloriously hacking away in the VA and the Pentagon.



USDS Administrator Mikey Dickerson and Deputy Administrator Haley Van Dyck. Credit: Maciek Jasik

M meet Dominic. This 35-year-old former soldier, now living in Maryland, spent over a year trying to sign up for his medical benefits. He

513 35

Steven Levy

“[The lobbyists] represented the interests of traditional IT contractors, who seem to believe it is their **right** to **overcharge** taxpayers for **complex** computer systems that **don't work**.”

–Steven Levy, Star Spangled Geeks

“We believe it is our **duty** charge taxpayers a **fair amount** for **simple** computer systems that **work well!**”

-Ad Hoc

US federal government IT reform

Intra-governmental
reform-minded
agencies

Private sector
contractors, vendors,
service providers

People

NATION



Code Red



Last fall, a hastily assembled group of tech wizards arrived in D.C. to revive HealthCare.gov. The inside story **By Steven Brill**

Photograph by Nick Veasey for TIME

HealthCare.gov rescue aftermath: the people

- Some go inside government: form **new agencies**: USDS and 18F  18F
- Some stay outside government: form **new generation of contractors**: Ad Hoc, Nava, Truss, Nuna 
- The rest—the sane ones—go back to being civilians

About me

- Center For Neighborhood Technology (1999-2006)
- Freelance web news apps (2006)
- EveryBlock (2007-2011)
- DNC / OFA 2012 (2011-2013)
- Public Good Software (2013)
- HealthCare.gov rescue (2013-2014)

Ad Hoc

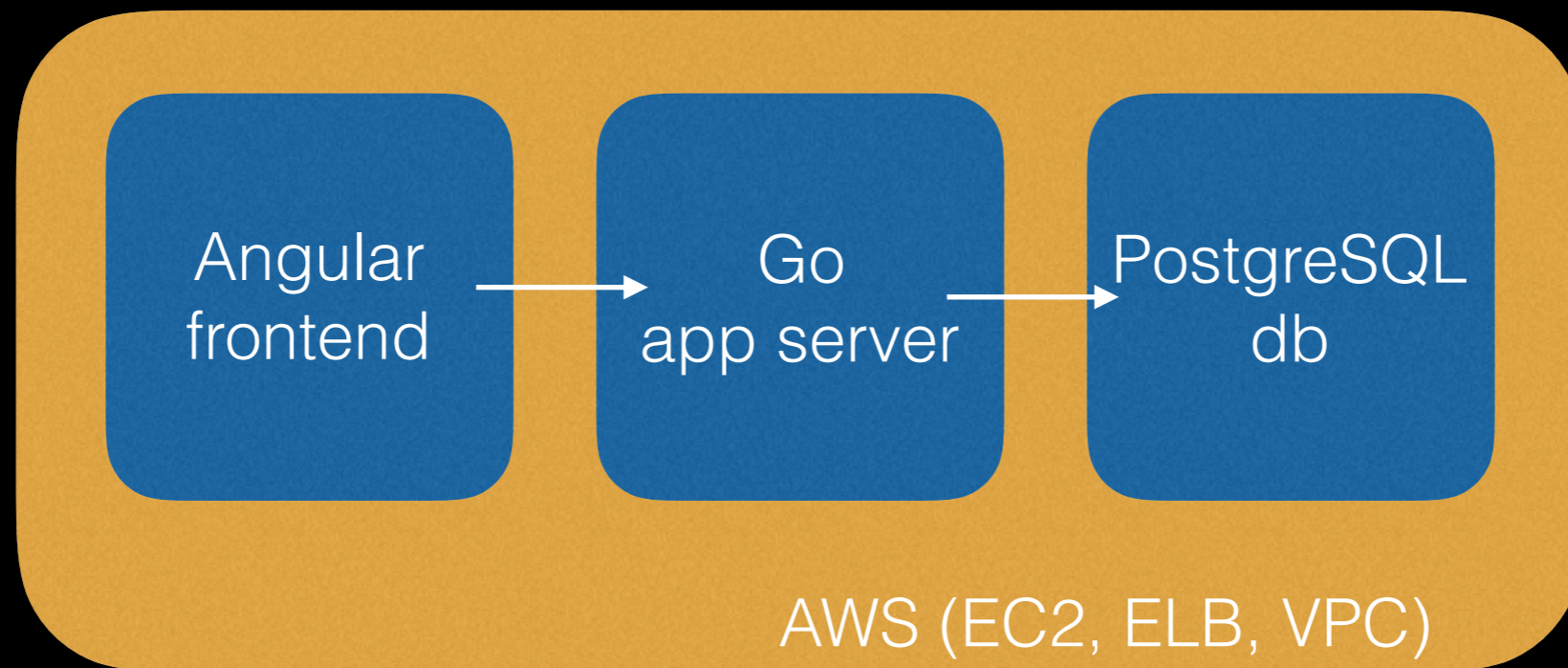
- Founded in spring 2014 with 5 people
- Starts work with CMS in summer 2014

PET

- Premium Estimation Tool, aka Anonymous Shopping
- Open Enrollment year 2015
- Development: summer 2014 to fall 2014
- Team: 5
- 500M pageviews for OE 2015, most visited page on HealthCare.gov
- Demand-management strategy, took load off core site
- Latency: ~10ms
- Uptime: ~99.999%

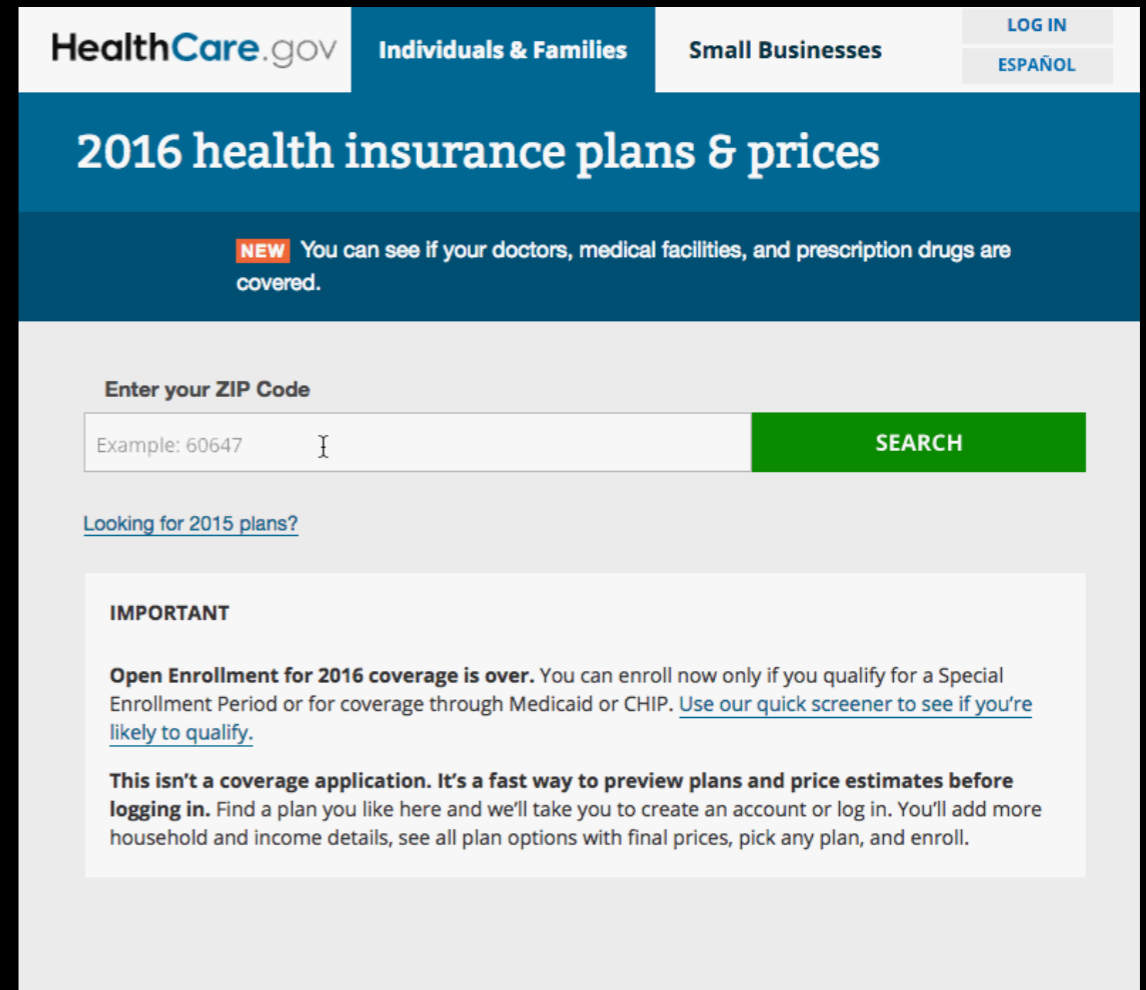
The screenshot shows the HealthCare.gov website interface for the Premium Estimation Tool (PET). The header includes the HealthCare.gov logo, navigation links for "Individuals & Families" and "Small Businesses", and language options for "LOG IN" and "ESPAÑOL". The main content area features a blue background with a map of the United States. The headline reads "See 2015 health insurance plans and prices". Below this, a sub-headline states: "Answer a few quick questions and we'll show you specific health plans available to you, with estimated prices based on your income." A "ZIP Code" input field is present, with the example "60647" and a cursor. A prominent green "GET STARTED" button is located below the input field.

PET tech stack



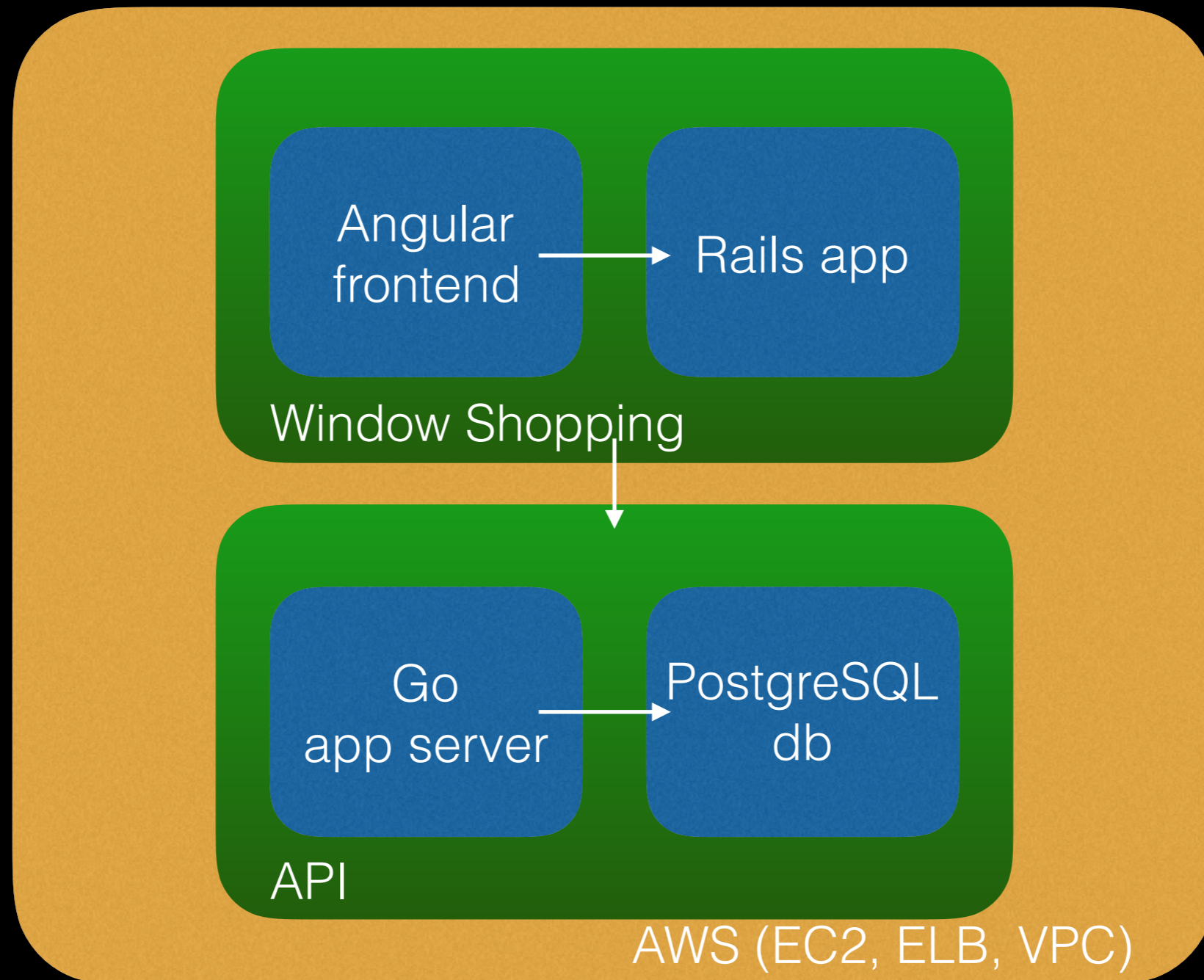
Window Shopping & Tax Tools

- Open Enrollment year 2016
- Development: spring 2015 to fall 2015
- Extract out Go + PgSQL backend to API service layer
- 2 client apps of the API, Window Shopping (PET 2.0) and Tax Tools



The screenshot displays the HealthCare.gov website interface. At the top, there are navigation links for "HealthCare.gov", "Individuals & Families", "Small Businesses", "LOG IN", and "ESPAÑOL". The main heading is "2016 health insurance plans & prices". Below this, a "NEW" banner states: "You can see if your doctors, medical facilities, and prescription drugs are covered." A search form is present with the label "Enter your ZIP Code", an input field containing "Example: 60647", and a green "SEARCH" button. A link for "Looking for 2015 plans?" is also visible. An "IMPORTANT" notice box contains the following text: "Open Enrollment for 2016 coverage is over. You can enroll now only if you qualify for a Special Enrollment Period or for coverage through Medicaid or CHIP. [Use our quick screener to see if you're likely to qualify.](#) This isn't a coverage application. It's a fast way to preview plans and price estimates before logging in. Find a plan you like here and we'll take you to create an account or log in. You'll add more household and income details, see all plan options with final prices, pick any plan, and enroll."

Window Shopping tech stack



Coverage data

- Improvement for OE 2016
- Providers (doctors, hospitals, etc.) and prescription drugs and which insurance plans cover them
- All insurance companies with plans in the marketplace, 150+
- JSON schema
- Updated at least monthly
- 11M providers, 12K drugs
- Searchable on [HealthCare.gov](https://www.healthcare.gov)

OE 2017

- Plan Compare - shopping portion of HealthCare.gov
- Development: now
- Begins November 2017

Challenges

- Culture: from waterfall (generally speaking) to more agility, more unknowns, more different kinds of risk

vets.gov

- Dept. of Veterans Affairs
- Veterans-focused portal for all services
- Integrates 100s of sites and services
- Common design (UX-researched)
- SSO
- Beta site: Ad Hoc + VA, summer/fall 2014, launched Veterans Day 2014, POC for more nimble dev at the VA

The screenshot shows the top portion of the vets.gov website. At the top left is the logo "VA | Vets.gov" and at the top right is a search box labeled "Search". Below the logo is a yellow bar with the text "How can we help?". The main content area is divided into four blue boxes, each representing a service category: "Disability Benefits" (with subtext "Help with service-related medical conditions."), "Education Benefits" (with subtext "Tuition assistance, training programs, and more."), "Careers and Employment" (with subtext "Meaningful employment and career development for Veterans and their families."), and "Health Care" (with subtext "Apply for VA health care, including preventive care, primary care, and more."). Below these boxes is a section titled "Common Questions" with three links: "How do I apply for health care?", "How do I apply for disability benefits?", and "How do I apply for education benefits?". At the bottom of the screenshot is a link titled "Popular on vets.gov" and another link "Find nearby VA locations".

USDS

- 1. Central HQ at White House
- 2. Federated teams across cabinet-level agencies: HHS, CMS, EPA, DHS, DOD, IRS, SSA, etc.
- Business process consulting for digital services: intervene, steer, encourage, provide oversight, set standards, align with industry methods
- And some delivery: eg., College Scorecard

USDS: procurement reform

- Interpreting regulations (mainly the FAR), providing guidance
- Targeted legislative changes
- Barrier to entry for small new companies: still too high

18F: Agile BPA

- “Blanket Purchase Agreement”
- Way to determine if company is a fit
- Coding challenge
- Pre-vetted for certain contracts
- Intended to be friendly to small businesses
- Early yet, still learning, experimenting

Final thoughts

- Simple solutions above all
- Competence-as-a-Service (CaaS)
- Build the right thing
- Empathy first: for users, for client

Thank you!

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