Storming the Castle:
Open source challenges in government

morgan senkal
@morganpdx

kathy lee
kathy.w.lee@gmail.com
>>> I’m a really old computer!
Part I

Challenges to using open source tools
Carbon Capture 101

Carbon capture is an important part of the Energy Department's Fossil Energy research and development efforts, but it can be hard to understand. Our new infographic breaks it down.

READ MORE →
Oracle: Making everything hard everyday
INTERNET EXPLORER
The number one browser for downloading a better browser
IE & group policy FAIL
<table>
<thead>
<tr>
<th>Name</th>
<th>Size</th>
<th>Date Attached</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>TestActive.zip</td>
<td>22K</td>
<td>Wednesday, Dec......</td>
<td></td>
</tr>
<tr>
<td>AMS Spec It Template.docx</td>
<td>15K</td>
<td>Wednesday, Janu......</td>
<td></td>
</tr>
<tr>
<td>update_fc_20150122.txt</td>
<td>2K</td>
<td>Wednesday, Janu......</td>
<td></td>
</tr>
<tr>
<td>update_fc_20160127.txt</td>
<td>7K</td>
<td>Friday, January 22...</td>
<td></td>
</tr>
<tr>
<td>update_fc_20160127_b.txt</td>
<td>5K</td>
<td>Monday, January 2...</td>
<td></td>
</tr>
<tr>
<td>update_fc_20160205.txt</td>
<td>2K</td>
<td>Tuesday, February...</td>
<td></td>
</tr>
<tr>
<td>OracleDatabaseData.txt</td>
<td>3K</td>
<td>Wednesday, Febru......</td>
<td></td>
</tr>
<tr>
<td>OracleDataReaderWrapper.txt</td>
<td>6K</td>
<td>Wednesday, Febru......</td>
<td></td>
</tr>
<tr>
<td>OracleDatabase.txt</td>
<td>45K</td>
<td>Wednesday, Febru......</td>
<td></td>
</tr>
<tr>
<td>OracleSprocAccessor.txt</td>
<td>8K</td>
<td>Wednesday, Febru......</td>
<td></td>
</tr>
<tr>
<td>CBS CM Process Flow4.vsd</td>
<td>131K</td>
<td>Monday, February...</td>
<td></td>
</tr>
</tbody>
</table>

How I move files between network boundaries = THE WORST
Me → Production laptop, really just a jump box to development VM → Cloud → Remote desktop → Development virtual machine → Code plex site → Code plex site → Team Foundation Server
Me → CodePlex Site
Me

Production laptop, really just a jump box to development VM

Codeplex site

Remote desktop

Development virtual machine

Team Foundation Server

Codeplex site
HACKED
Hacks of OPM databases compromised 22.1 million people, federal authorities say

By Ellen Nakashima  July 9, 2015

Details emerge about 'huge' federal government data hack
Why the IRS Was Hacked Again and What the Feds Can Do About It

How can U.S. government agencies be better prepared to protect their sensitive data?

By The Conversation | Contributor  Feb. 16, 2016, at 11:46 a.m.
What is PII?
(personally identifiable information)
Excuse. This is a serious cat meeting.

Quite right

No hoomins, no press, no pictures pls
ANXIENTY GIRL!

able to jump to the worst conclusion in a single bound!
Cyber-Breach & NISPOM Conforming Change 2 – It’s What’s on the Inside That Counts

By Aleksander Major on November 21, 2014
Posted in Cybersecurity, DFARS

Most companies are worried about external threats – things that are coming at their people, their group, their company, their government, all from an outside actor. Like government’s with an eye on counter-intelligence, however, savvy businesses also realize that their employees can also pose a very real internal threat. While a insider breach is not as prevalent as government...
Disgruntled Employee of the Month
Part II

Challenges to contributing to open source tools

“ACCEPT CHALLENGES, SO THAT YOU MAY FEEL THE EXHILARATION OF VICTORY.”

~ GEORGE S. PATTON
Summary: Today, we’re releasing for public comment a draft policy to support improved access to custom software code developed for the Federal Government.

America has long been a nation of innovators. American scientists, engineers and entrepreneurs invented the microchip, created the Internet, invented the smartphone, started the revolution in biotechnology, and sent astronauts to the Moon. And America is just getting started. That is why since the start of this Administration, the President has taken concrete actions to support the spirit of innovation that makes America so strong. By harnessing 21st century technology and innovation, we’ve found new ways to tap into the collective knowledge of the American people and make it easier to share data, improve tools and
The home of the U.S. Government’s open data
Here you will find data, tools, and resources to conduct research, develop web and mobile applications, design data visualizations, and more.
My Administration is committed to creating an unprecedented level of openness in Government. We will work together to ensure the public trust and establish a system of transparency, public participation, and collaboration. Openness will strengthen our democracy and promote efficiency and effectiveness in Government.

— PRESIDENT OBAMA, 01/21/09
Part III

The tide is changing
New OMB policy aims to make federal agency code open source

The Federal Source Code policy would make agencies share source code with one another to avoid duplicative software purchases, and promote innovation and collaboration across federal agencies.

By Greg Otto
March 10, 2016 8:00 AM

U.S. report highlights positive elements of government open source adoption

Posted 09 Oct 2015 by Mark Bohannon (Red Hat)

43 readers like it

6 Benefits of Using Open Source Software in Government (Industry Perspective)

Plus, five open source software products that can aid government.

By Jeff Shaw / February 1, 2016

An open source government is a faster, more efficient government

December 9, 2015

Tagged / open source / agency work / best practices / collaboration tools /
FIVE OPEN SOURCE SOFTWARE PRODUCTS THAT CAN AID GOVERNMENT

For agencies that want to consider open source software, five tools in particular offer significant potential advantages to government:

5. **Drupal**, an open source content management system, is used to build websites and author content. Used by 37 percent of .gov websites, Drupal was the CMS technology of choice for the state of Colorado, whose proprietary tool had become inflexible and unstable after reaching more than 100 customers on the platform. The legacy solution also had been purchased by a large company, and its price was expected to increase significantly. After the state conducted an analysis of alternatives, Drupal stood out. With more than 1 million users worldwide, it offers ample online resources and contractors available for support, provides a relatively simple interface, is adequately flexible to support growth without significant investment and reduces the required implementation time by nearly 15 times. The effort has been wildly successful, and the state government portal has launched three distributions of Drupal to 174 state agencies in Colorado in the past two years.
The tide is changing
Total Fed IT Employees  (Doesn't include federal contract employees)
Total Fed Github Users  (Most likely includes federal contract employees)
Estimated Total Fed IT Employees  (Includes federal contract employees)

Total Fed Github Users   (Most likely includes federal contract employees)
The Python ARM Radar Toolkit (Py-ART)

The Python ARM Radar Toolkit, Py-ART, is an open source Python module containing a growing collection of weather radar
algorithms and utilities build on top of the Scientific Python stack and distributed under the 3-Clause BSD license. Py-ART
is used by the Atmospheric Radiation Measurement (ARM) Climate Research Facility for working with data from a number of
precipitation and cloud radars, but has been designed so that it can be used by others in the radar and atmospheric
communities to examine, processes, and analyze data from many types of weather radars.
This is the central repository for all open data and API for Department of Energy.

kinlane Initial commit

LICENSE Initial commit

README.md Initial commit

developer

This is the central repository for all open data and API for Department of Energy.
We couldn’t find any repositories matching 'bonneville power administration'
You could try an advanced search.

We couldn’t find any repositories matching 'bonneville power'
You could try an advanced search.
“Code sharing is a major cost-saving opportunity for government agencies at the federal level, not to mention the local level, that perform similar functions. Yet each of them is reinventing the wheel in development, driving up costs.” — Tim O’Reilly
Open Source

DHS warns on cyber risks of open source

By Sean Lyngaaes  Apr 12, 2016

Is the government's embrace of open source going off track?

By Mark Bohannon  Apr 13, 2016

The Department of Homeland Security has suggested striking significant passages from a draft White House policy on open software out of concern that baring too much source code will increase the government's vulnerability to hacking.
Resources

The OSFA Mentors maintain this list of resources that can help you make the case for open source in government.

You may also be interested in our Case Studies, which are sometimes the best way to tell the story of open source.

Open Source in the U.S. Government. This is a compilation of major events in the history of the U.S. Government’s adoption of open source.

The DOD Open Source FAQ
Updated frequently. Helpful for civilian agencies, as well.

Government Open Source Software. This is a collaboratively curated list of software released by the U.S. Government.

Resources

The OSFA Mentors maintain this list of resources that can help you navigate your open source in government.

You may also be interested in our Case Studies, which are sometimes the best way to tell the story of open source.

Open Source in the U.S. Government. This is a compilation of historical artifacts of the U.S. Government's adoption of open source.

The DOD Open Source FAQ
Updated frequently. Helpful for civilian agencies, as well.

Government Open Source Software. This is a collaboratively maintained list of software used by the U.S. Government.

Government Open-Source Software (GOSS) "Handbook for

We're sorry.
The spreadsheet at this URL could not be found. Make sure that you have the correct URL. Find out more at the Google Docs Help Center.
Project Open Source

Within 90 days of the publication date of this policy, the Administration will launch Project Open Source, an online repository of tools, best practices, and schemas to help covered agencies implement this guidance. Project Open Source will be accessible at https://project-open-source.cio.gov. Project Open Source will evolve over time as a community resource to facilitate the
1. Educate on Value
2. Educate on Availability
M-04-16, Software Acquisition

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

July 1, 2004

M-04-16

MEMORANDUM FOR: SENIOR PROCUREMENT EXECUTIVES
CHIEF INFORMATION OFFICERS

FROM: Karen S. Evans
Administrator, IT and E-Gov

Robert A. Burton
Associate Administrator,
Office of Federal Procurement Policy

SUBJECT: Software Acquisition

This memorandum reminds agencies of policies and procedures covering acquisition of software to support agency operations.

The Office of Management and Budget (OMB) Circulars A-11 and A-130 and the Federal Acquisition Regulation (FAR), guide agency information technology (IT) investment decisions. These policies are intentionally technology and vendor neutral, and to the maximum extent practicable, agency implementation should be similarly neutral. As this guidance states, all agency IT investment decisions, including software, must be made consistent with the agency’s enterprise architecture and the Federal Enterprise Architecture. Additionally, agencies must consider the total cost of ownership including lifecycle maintenance costs, the costs associated with risk issues, including security and privacy of data, and the costs of ensuring security of the IT system itself. Furthermore, software acquisitions must comply with OMB Memorandum M-04-08, Maximizing Use of SmartBuy and Avoiding Duplication of Agency Activities with the President’s 24 E-Gov Initiatives (February 25, 2004), and where required, be coordinated with the SmartBuy program.

This reminder applies to acquisitions of all software, whether it is proprietary or Open Source Software. Open Source Software’s source code is widely available so it may be used, copied, modified, and redistributed. It is licensed with certain common restrictions, which generally...
Source Code Policy

Is there a Federal shared service or previously developed code available for Government-wide reuse?

1. YES: Adopt
   NO: Go to Step 2

Is there a commercial off the shelf (COTS) solution?
Consider proprietary, mixed source, and open source software equally.

2. YES: Adopt
   NO: Go to Step 3
3. Combat Managing by FUD
4. Share Success Stories
5. Support Government OSS Initiatives
Thank you!
Questions?
Resources

1. ben.balter.com
2. Open Source Software in Government: Challenges and Opportunities
3. sourcecode.cio.gov
4. whitehouse.gov/open
5. emanuelfeld.github.io/blog/2016/04/27/government-github-ecosystem.html
6. GitHub Government
7. opensource.com/government