Open Source Software Adoption within US Public Sector

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Introduction

- **Open Source Software Institute**
  - Membership-based, non-profit, est. 2001
  - Promote adoption of open source software with US Federal, state, local government agencies
  - Connect Government – Industry – Community
  - Advocacy – Business Development
    - Conferences, Tech Briefings
    - Special Projects
    - R&D, Policy
  - *Drive the Business of Open Source*
Essentials for open source adoption in the public sector

• **Challenges are Similar**

• **Public Sector Marketplace**
  • Size, scope, impact
  • Adoption trends
  • Defining success

• **Public Sector Adoption**
  • OSS value proposition
  • Key points for Government adopters
  • Next steps
Size, scope, impact of US public sector marketplace

US IT Budget 2013 = $79 BILLION USD

http://www.itdashboard.gov/
Investments per agency

FY 2012 Federal IT Budget per Agency

- DoD $33B
- HHS $6.9B
- DHS $5.6B
- NASA $1.5B
- NSF $98.7M
Regardless of budget cuts...IT continues

- Maintenance of existing IT systems
- Updates of new technologies
- Cybersecurity

Federal Information Technology
FY 2013 Budget Priorities:
“Doing More With Less”

Steven VanRoekel
U.S. Chief Information Officer
www.whitehouse.gov
Understanding public sector adoption trends

Moore's Chasm

Relative % Of Customers

Innovators, Enthusiasts  Early Adopters Visionaries  Early Majority Pragmatists  Late Majority Conservatives  Laggards Skeptics

Performance-based  Solutions and Convenience-based

Commercial Adopters

Government Adopters

http://www.geoffreyamoore.com/
Open Source Hype

Gartner Hype Cycle - http://www.gartner.com/technology/research/methodologies/hype-cycle.jsp

OSSI trigger event
Dec 2000

Technology Trigger

VISIBILITY

Peak of Inflated Expectations

Plateau of Productivity

Slope of Enlightenment

Trough of Disillusionment

TIME
Under First Open-Source Prez Obama, White House Adopts Drupal, but at What Cost?

BY KIT EATON | OCTOBER 20, 2009

What do the White House and FastCompany.com have in common? They both run on Web engine Drupal. The White House has just switched over. Obama loves some open-source, it seems.
Government Open Source Projects
http://gsa.github.io/federal-open-source-repos/

- Advanced Distributed Learning Network (29)
- Consumer Financial Protection Bureau (7)
- Department of Education (2)
- Department of Health & Human Services (2)
- Department of Labor (18)
- Environmental Protection Agency (1)
- Federal Communications Commission (27)
- General Services Administration (15)
- Library of Congress (2)
- National Aeronautics & Space Administration (15)
- National Archives & Records Administration (4)
- National Cancer Informatics Program (30)
- National Park Service (12)
- National Renewable Energy Laboratory (7)
- Office of Citizen Services & Innovation Technologies – GSA (30)
- Open Government Platform (4)
- Presidential Innovation Fellows (22)
- US Geological Survey (8)
- US Agency for International Development (2)
- US Army Corps of Engineers (29)
- White House (6)
Hot topics

IT System Management

Cloud

Big Data

Mobility Systems
Collaborative technologies

NOT

Open source vs. Proprietary

OR
Open source is part of the technology equation
Realistic expectations: Commercial vs Public Sector

Linux on commodity hardware has allowed amazon.com to cut its costs by an order of magnitude since it launched, and it is a heavy user of Perl, MySQL, and Mason.

Even though amazon.com is built on top of open source software, the licenses compel no release of Amazon source because its software is never distributed. In the new world of the Internet, software is a service, not an artifact.

Tim O'Reilly
O'Reilly Publishing
Decision points for public sector systems

- Security
- Cost Savings
- Manageability
- Resource Accessibility
- Vendor Support
- Policy Compliance
Security: *a process, not a product*

- **Access and Transparency**
  - Access to code
  - Peer review
  - Ability to correct

- **Information Assurance**
  - Security/Procurement Compliant

- **Accountability**
  - Not reliant on single vendor for security updates, adherence to standards, quality control
Economics and overselling

- Reduce total **Product Life-cycle Management** expense
  - [x] Initial product expense
  - [x] Recurring license fees
  - [x] Product/Vendor replacement

- **Still requires commitment to:**
  - ✔️ Customization & installation
  - ✔️ Data Migration & training
  - ✔️ Maintenance & support
Manageability

• **Technical**
  
  • Access to code
  • Modify and customize
  • Inspect and correct
  • Access to common resources

• **Operational**
  
  • Multiple development models
  • Transparency and Interoperability
  • Access to community assets
  • Increase competition drives innovation

• **Economic**
  
  • License rights to users
  • Eliminate license fees
  • Reuse/redistribute code
  • Avoid vendor lock-in
  • Extend product shelf-life
Resources, vendors and the concept of community
Commercial business models that employ open source

<table>
<thead>
<tr>
<th>SUBSCRIPTION &amp; SUPPORT</th>
<th>STACK &amp; BUNDLE</th>
<th>BASED-ON OSS</th>
<th>CUSTOM DEVELOPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Source components. Value added via packaging, delivery, maintenance, support and services. Enterprise offering combined with service contract.</td>
<td>Open Source components included as part of various product offerings. OSS serves as foundation for vendors-specific product or service.</td>
<td>Open Source solutions serve as software infrastructure for delivery of service offering.</td>
<td>Open Source included as part of broad solution to reduce cost and increase efficiency. Development &amp; maintenance services to support existing or future enterprise OSS solutions.</td>
</tr>
</tbody>
</table>

-logos:
- NetEye
- Suse
- redhat
- HP
- IBM
- Amazon.com
- Oracle
- Google
- Android
- Northrop Grumman
- General Dynamics
- BAE Systems
Tipping point

- Commercial Off-the-Shelf (COTS)
- Key agencies developed open source policies
- Budget cuts create opportunity
- Vendor support and maturing market
- Open source is now “cool”
Open Source (http://www.whitehouse.gov/developers)
We believe in using and contributing back to open source software as a way of making it easier for the government to share data, improve tools and services, and return value to taxpayers. Below are a few of the projects that the White House has contributed back to the open source community.

Open Source (http://www.italdashboard.gov/)
In response to high demand from federal Agencies and the software development Community, we have now made the Source code of the IT Dashboard available to the public.
Next steps, recommendations

- **Build/Support/Respect Communities**
- **Identify metrics**
  - Business Case Analysis
  - Lessons Learned/Success Stories
  - Define the Economics
- **Information Assurance**
  - “TRUSTED” resources
- **Questions?**
Thank you

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