

Code Repository for e-Governance Applications

Problems in e-Governance Project Delivery



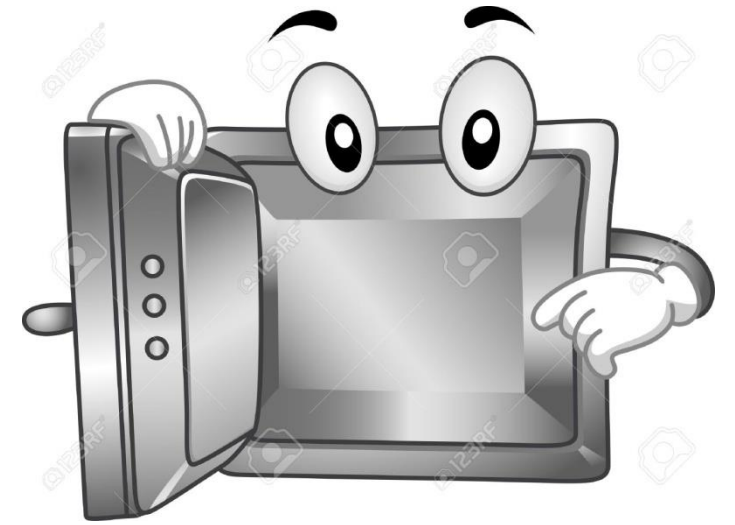
Duplication



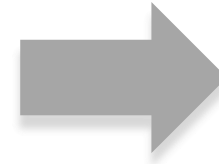
Vendor/MSP Dependency
and Lock-in



Standalone
& Silos



- No Software Assets
- Reinvestment in the same assets



Long Development
Cycles



Higher Cost



Lack of
Standardization

Software Development Maturity Model

Writes custom software, no reuse, no software assets

Promotes code reuse, adopts Open Source software

Collaborates using community development practices

Level

0

1

2

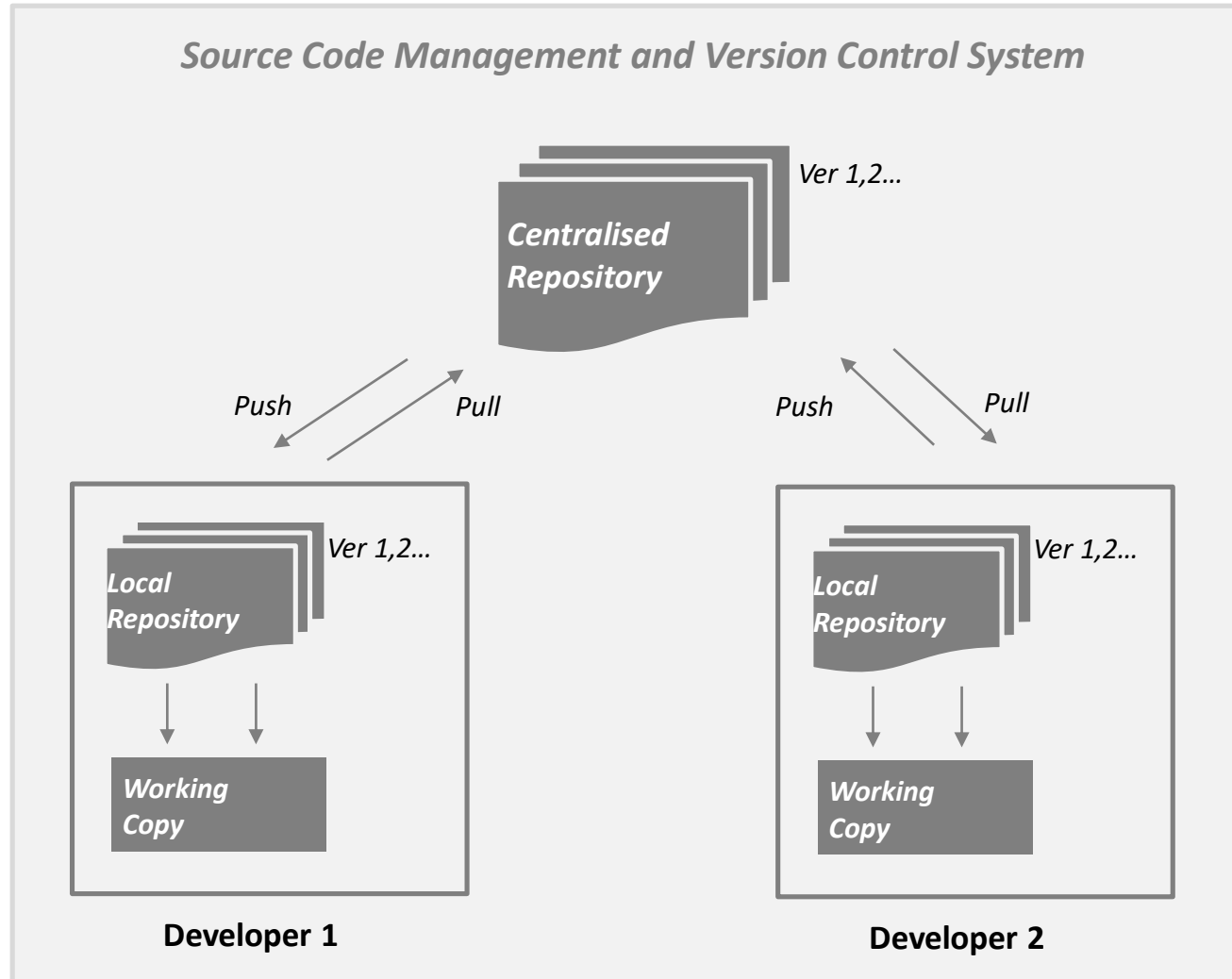
3

4

Creates software assets by archiving and version control

Makes own software available as Open Source

Central Source Code Management is the Key!



- Source Code Management(SCM)
- Version Control
- Team Collaboration
- Archival of Source Code
- Discovery and Reuse
- External Community Collaboration

Industry Benchmarks

- Mature software companies rely on SCM and Version control systems
 - Core development infrastructure, centrally maintained
- Popular SCM Tools – Git, SVN, CVS, ClearCase, VSS
- Hosted Services – **GitHub, SourceForge, GitLab, Bitbucket**

Problems in Adopting Industry Standard Practices in e-Governance

- Most of the version control repositories are paid
- The provision for private repository may not be there
- Its time consuming and costly to set up organization wide code repository
- The source code may be hosted out of India*

*Not recommended as per the MeitY guidelines

- Promote **Reuse**
- **Rapid Replication** of successful e-Governance solutions
- Ensure **Collaboration**
- Reduce the **Total Cost of Ownership**
- Foster ecosystem of **Innovation**
- Ensure **Strategic Control**



Policy On Collaborative Application Development by Opening the Source Code of Government Applications

Version 1.0

10-02-2015

Government of India

Department of Electronics & Information Technology
Ministry of Communications & Information Technology,
New Delhi, 110003

Estonia publishes its e-voting source code on GitHub

System architect says he welcomes "development and security of the e-elections."

by Cyrus Farivar - Jul 13, 2013 2:00 pm UTC

Share Tweet 76



All Estonians can vote online using their digital ID card

Bulgarian Government Embraces Open Source

By Jack M. Germain
Jul 7, 2016 5:03 PM PT



Image: Adobe Stock

Bulgaria's Parliament recently passed legislation mandating open source software to bolster security, as well as to increase competition with commercially available software.

Government opens up: 10k active government users on GitHub

August 14, 2014 benbalter General

In the summer of 2009, The New York Senate was the first government organization to post code to GitHub, and that fall, Washington DC quickly followed suit. By 2011, cities like Miami, Chicago, and New York; Australian, Canadian, and British government initiatives like GOV.UK; and US Federal agencies like the Federal Communications Commission, General Services Administration, NASA, and Consumer Financial Protection Bureau were all coding in the open as they began to reimagine government for the 21st century.

Fast forward to just last year: The White House Open Data Policy is published as a collaborative, living document, San Francisco laws are now forkable, and government agencies are accepting pull requests from every day developers.

Government Act require that all software written and Open Source Software (FOSS)-compliant. The effect this week.

Bozhanov, advisor to one of Bulgaria's four ministers, treated the new law. "Software for the government be developed under the same definitions, and be provided free for use by government-commissioned software only. The law will be intact."

"I will continue to buy proprietary software. I will continue to increase transparency and reduce the cost of software for the developer at NeverFriday.com. I will continue to keep their budgets and poor quality a high priority to keep their budgets and poor quality a high priority higher-quality code," he told.

Govstrap.io enables rapid deployment of UK government websites

Posted 02 Aug 2016 by Lauren Westley

4 readers like this



Image by: opensource.com

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United Kingdom government websites can now be deployed within minutes by re-using the familiar theme produced by Government Digital Services (GDS) in combination with the Bootstrap framework.

The open source software specialist OpusVL has made it possible to take the official Gov.UK website theme, which is under the MIT license, and reproduce it quickly and easily using Bootstrap, which originated from Twitter. Bootstrap is an HTML, CSS, and JavaScript framework for creating front end websites and applications. With an increase in the variety of devices used to view websites, Bootstrap is a standard tool kit for building responsive design, and enabling websites to be mobile- and tablet-friendly.

Govstrap.io quickstart guide

1. Get Bootstrap

If you're already using Bootstrap to build your site then you're all set to style it with Govstrap. If you don't have Bootstrap yet, download it from getbootstrap.com. Govstrap is built for Bootstrap version 3.

2. Add Govstrap

Download the Govstrap CSS file from [GitHub](https://github.com). Load it after Bootstrap's CSS, like this:

EXAMPLE

```
<!-- Bootstrap core CSS -->
<link href="bootstrap.min.css" rel="stylesheet">
<!-- Govstrap styling -->
<link href="govstrap.css" rel="stylesheet">
```

3. You're done!

You can now use all of the Govstrap classes and elements in your site.

<https://openforge.gov.in>

Inaugurated on 7th March 2017
by Hon'ble Minister of Electronics
and IT

The screenshot shows the OpenForge website homepage. At the top, there is a navigation bar with the OpenForge logo, the text "OpenForge", and links for "My Page", "Projects", and "Open Governance". A search bar and a user profile icon for "amitrjan25" are also present. The main header features the OpenForge logo and a tagline: "Government of India's platform for open collaborative software development of e-Governance applications." Below this is a "GET STARTED" button. To the right is a word cloud with terms like "OPEN SOURCE", "SOFTWARE", "CULTURE", "TECHNOLOGY", "FREE", "ACCESS", "DEVELOPMENT", "COMMUNITY", "CODE", "SYSTEM", "NEW PRODUCTION".

The main content area is titled "Build Modern, Best in Class Software Together" and lists six benefits:

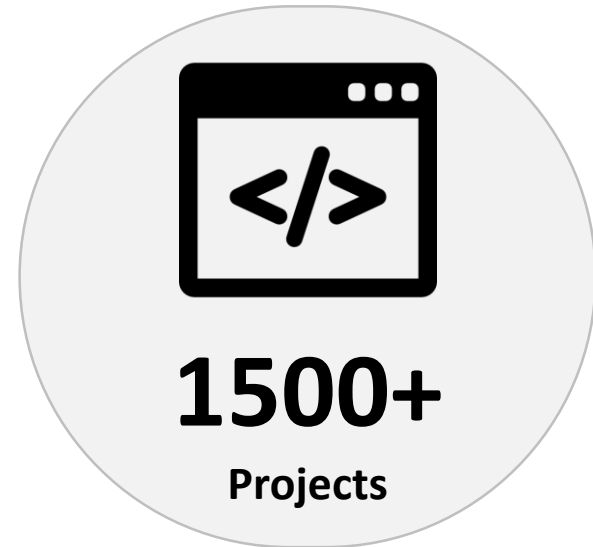
- Reuse**: Why reinvent the wheel, when you can reuse, remix and build on top of others - all in the spirit of open sharing.
- Faster Delivery**: Accelerated pace of application development due to sharing and reuse of source code results in faster project deliveries.
- Standardization**: Reuse leads to uniformity in application development, reduced fragmentation and improved interoperability.
- Innovation**: Transparency and openness gives birth to new ideas and sparks collaborative creativity in eGov solutions.
- High quality**: Community collaboration leads to continuous improvements resulting in higher quality applications.
- Cost Saving**: Reduced costs in development and implementation of eGov applications.

Below this is a section titled "View Trending Projects or Browse all OpenForge Projects". It is divided into two columns:

- Latest Projects**:
 - Aadhaar eAuth/eKYC Sample App (.Net)**: This project provides a sample .Net application that uses eAuth and eKYC APIs provided by UIDAI....
 - eSign Sample Application (.Net)**: This project provides a sample .Net application that uses eSign APIs....
 - DiGLocker Issuer App (PHP)**: This project provides a sample DiGLocker Issuer application created in PHP....
- Most Popular Projects**:
 - EPrabandhan**: ERP for Jharkhand Police was named as e-Prabandhan developed using OpenERP which is a suite of open core enterprise.
 - SmartCity Municipal Suite**: SmartCity Municipal Suite is built ground up for Indian ULB's to improve citizen service delivery, increase efficiency &...
 - Project Fedena**: Project Fedena is the open source school management software by Foradian Technologies developed to help various schools and...

The bottom section is titled "Manage OpenForge Projects using Modern Development Tools" and lists three categories:

- Information Sharing Tools**: Application Life Cycle Management, Source Code Management, Version Control, Shared "Code Snippets".
- Tracking Tools**: Release Management, Bug Tracking, Task and Project Management Tools, User Management.
- Communication Tools**: Discussion Forums, Mailing Lists, Project Wiki, Document Manager.



Who can use OpenForge?



How It Works?



Government
to
Government



Government
to
Community



Pvt. Code Repository
& Version Control



Download &
Reuse



Download, Reuse
& Improve



Download &
Reuse



Download, Reuse
& Improve

OpenForge Features



Development

- Source Code Management
- Version Control
- Git, SVN
- Continuous Integration



Tracking

- Bugs
- Tasks
- Requirements



Communication

- Mailing Lists
- Discussion Forms
- Project Wiki

Next Steps

- **Nationwide Awareness and Adoption**
- **Community Involvement** - Open the source code of Government Applications and invite community contribution
- Involve Academia, Community and Open Source Enthusiasts
- Create **Open Source e-Governance Products** from the platform

Thank You