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Open Source Collaborative Principles Within the DoD

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Setting Expectations

*Will Cover:* 
- A case study for OSS principles at work inside the enterprise
- Learning from you – how do we apply OSS principles better?

*Won’t Cover:* 
- Helping you contribute OSS code to the next tank or plane!
- Usage or debate on which OSS tools are inside of DoD
“Software code has become central to how the war-fighter is able to conduct missions… DoD must pursue an active strategy to manage its software knowledge base and foster an *internal* culture of open interfaces, modularity, collaboration, and reuse.”

- Open Technology Development Roadmap Plan (April 2006)
- Commissioned by Sue Payton, Asst. Sec for Air Force Acquisition
**Forge.mil Vision**

**TODAY**
- Siloed development environments
- Expensive and time consuming start-up
- Limited exposure, sharing, or re-use
- Duplication of effort

**FORGE.mil**
- Agile development and testing
- Cross-program sharing: software and services
- Early and continuous collaboration
- Integrated approach to development life cycle
- Extensible platform to support delivery of partner capabilities
Forge.mil Community Approach

CollabNet TeamForge

DOD Acquisition Community
DOD Development Community
DOD Test and Evaluation Community
DOD IA Community
DOD NETOPS Community

Software, Systems, Services

Government, Industry & Academia
Collaborative Development & Test

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Forge.mil Key Features

Application lifecycle management (ALM) services for the DoD Enterprise

Project management for distributed development teams
- Tasking & alerts
- Requirements management
- Real-time reporting

Software development services
- Source code management
- Bug, Issue Tracking
- Release management

Share software, best practices, information
- Project wiki
- Discussion forums
- Document management
Community Challenges

- Hierarchical, process & command driven culture
- Extreme risk aversion (with good reason!)
- Heavy reliance on documents, in-person meetings, email
- Initiative & creativity encouraged within chain of command
- Skepticism of new processes/tools
Community Lessons Learned

- Government community building is a 'contact sport'
- Both ‘carrot’ (grassroots) & ‘stick’ (top-down) needed
- Categorization (project, artifact, etc.) VERY important
- Documentation/process critical to acceptance
- Platform/tool MUST tie into email (notifications)
- “You can’t forklift a revolution…”
Community Lessons Learned

- Don’t assume inquisitiveness
- FAQ lists are important (even if not read the first time)
- Seek out, support, & encourage community leaders
- Grow community efforts first around existing tools/tech
- Don’t be afraid to use chain of command to jumpstart things
- Have realistic expectations & measure adoption
Collaborative/Community Victories

Sample Hosted Projects

Army
- **Apps 4 Army**: Innovation contest to develop new ‘mashup’s of Army data
- **Active Directory**: a collaborative space for code related to Active Directory management

Navy
- **Gargoyle**: a network activity monitoring and analysis system
- **NEP-O**: Naval Enterprise Portal Oceanography – Agile process used heavily
- **Vulnerator**: Aggregation of security readiness findings for systems

Air Force
- **AF EIM**: code supporting Air Force’s Enterprise Information Management
- **UAS TSPI Server**: a common network interface to multiple UAS ground-stations for sensors requiring real-time telemetry source

Marine Corps
- **NECC C2 Alerting CM**: NECC Capability Module for C2 Alerting
- **MAGTF C2**: Marine Air Ground Task Force Command and Control

Joint Chiefs & DISA
- **NSLDSS**: National Senior Leader Decision Support Service
- **APEX**: Adaptive planning and execution – building plans & situational awareness
- **CommunityCAC**: CAC Utilities/Firefox plugin
- **DODBastille**: RHEL STIG lockdown utilities

Initial Forge.mil capability (April 2009)
supporting collaborative software development & reuse

- Over 1300 software releases available
- ~30,000 software releases downloaded
- Over 14000 bugs/requirements tracked
- Over 11000 code checkins
- Over 2000 discussion posts

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Where Do We Go From Here?

- Social capabilities (tagging, aggregation, reputation)
- Full integration with Certification & Cloud Deployment
- Wherever the community takes us....
Question & Answer

Forge.mil Community Management
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