

An Introduction to the Mil-OSS Community

Mil-OSS connects and empowers an active community of civilian and military open source software and hardware developers across the United States.

This grassroots movement is a collection of diverse patriots that work for and with the Department of Defense and believe in adopting open technology innovation philosophies to effectively defend our nation.



ABOUT OUR COMMUNITY

Who We Are

[Our Mission](#)

[Our Goals](#)

[Our Guiding Principles](#)

[Steering Committee](#)

Our Mission

Mil-OSS exists to improve technology development and innovation across the DoD by connecting and empowering an active community of patriotic developers and solution providers, improving use of the taxpayers' funds through thorough requirements extraction, wise execution, and increasing the speed new technologies enable the Warfighter by leveraging open source and open technology innovation philosophies.



Who We Are

Our Mission

Our Goals

Our Guiding Principles

Steering Committee

Our Goals

- Create new open source solutions that are more effective for the Warfighter
- Increase reuse of code and existing open source projects
- Increase awareness of existing reusable and open source technologies
- Initiate events and opportunities that enable Warfighters to transfer requirements directly to developers
- Educate developers on how to better develop for the Warfighter
- Improve collaboration with allies

Our Guiding Principles

- ***We believe that*** contributing to OSS in the DoD is a patriotic contribution to our national defense.
- ***We believe that*** as stewards of taxpayer funds, we are responsible to be efficient, cost-effective and innovative.
- ***We believe in*** the innovative power of people, especially in large numbers.
- ***We believe in*** finding and meeting challenges—good solutions to real problems will find their needed funding.

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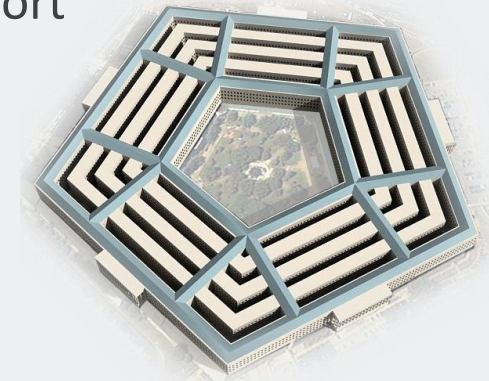
Steering Committee

- **Josh Davis**, Georgia Tech Research Institute
- **John Scott**, Radiant Blue
- **Heather Burke**, U.S.N. (Civilian at SPAWAR)
- **Gunnar Hellekson**, Red Hat
- **David Wheeler**, IDA
- **Daniel Risacher**, DoD (Civilian at DoD CIO NII)
- **Kane McLean**, BRTRC
- **Michael Howard**, Qinetiq
- **Winston Messer**, Open Source Software Institute

Defense Professionals

Mil-OSS is a grass-roots organization made up of . . .

- Active community of civilians and military across the U.S. Dept. of Defense (DoD)
- Open Source Software (OSS) and Open Source Hardware (OSHW) Enthusiasts
- Patriots who seek to improve software security, control development costs and increase innovation in support of our national defense



Where We Are

Defense Professionals

National Events

Local Events

Policy Engagement

Online Resources

National Events

- Annual Mil-OSS Working Group
- Mil-OSS LANT

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Local Events

- Atlanta — Monthly Breakfast
- Boston — Details Being Worked Out
- Charleston — Launching in May
- San Diego — Monthly Drinks
- Washington, D.C.
 - Monthly Lunch
 - Quarterly OpenGEO & Mil-OSS Meet-up
- Online — Details Being Worked Out

Policy Engagement

- If regulations or policy are being discussed, there is a strong chance someone from Mil-OSS is at the table
- Mil-OSS members have been part of the most important OSS policy developments

Where We Are

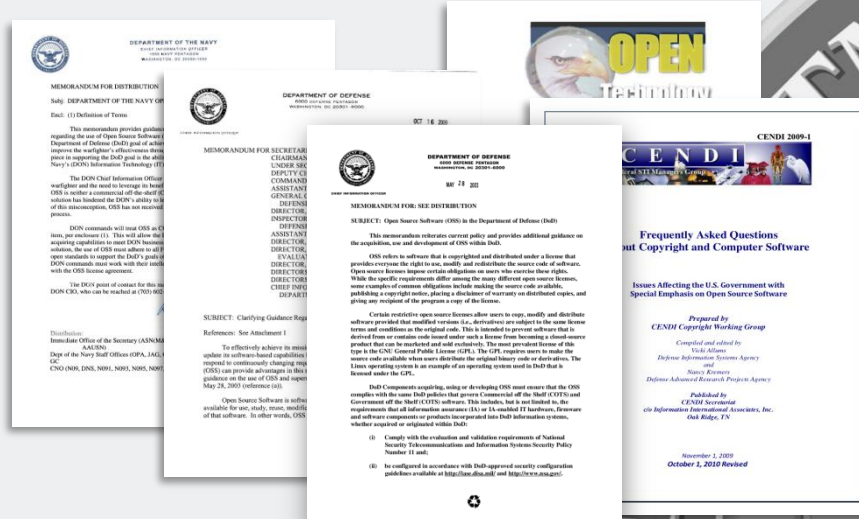
Defense Professionals

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Local Events

Policy Engagement

Online Resources



Online Resources

- Google Group - groups.google.com/group/mil-oss
- Facebook - facebook.com/groups/miloss
- Twitter - twitter.com/mil_oss
- LinkedIn - linkedin.com/groups?gid=3273107
- SlideShare - slideshare.net/group/military-open-source-software
- Vimeo - vimeo.com/channels/miloss
- Flickr - flickr.com/groups/mil-oss
- RSS Feed - mil-oss.org/index.php?format=feed&type=rss

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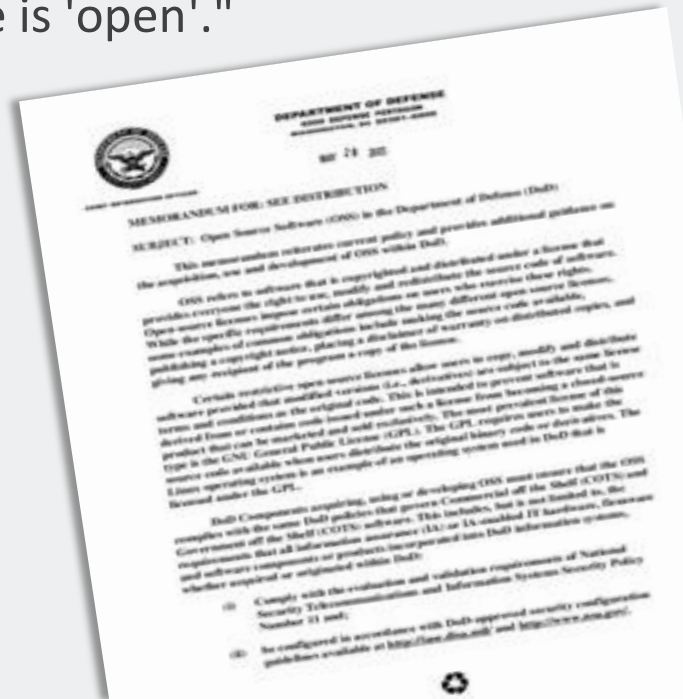
ABOUT OPEN SOURCE

The DoD Definition

"Open Source Software (OSS) is software for which the human-readable source code is available for use, study, reuse, modification, enhancement, and redistribution by the users of that software. In other words, OSS is software for which the source code is 'open'."

What Is OSS

- Definition
- Abundance
- Licensing
- Community Structure



Clarifying Guidance Regarding OSS (2009)

What Is OSS

Definition

Abundance

Licensing

Community Structure

Abundance of OSS

- Over half a million projects
- Over 5,000 sites for projects
- Over 2,000 licenses
- Approx. 20% of all code is Open Source
- Approx. 95% of code bases contain undisclosed OSS code
- Over 50% of code bases contain unknown or reciprocal (or protective) licenses

[Black Duck Software](#)



OSS Licensing Overview

- OSS Licensing is designed to protect the open distributability of the software.
- Licenses classified as Restrictive or Permissive
- Common aspects of OSS licensing include:
 - Encourage uncontrolled combination and reuse
 - Typically have no acceptance procedures
 - Often impose sharing obligations on users



What Is OSS

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Community Structure

Community

- Low barriers to entry (for a majority of projects)
- "The Commons" to specific problems & technologies
- Collaborative innovation

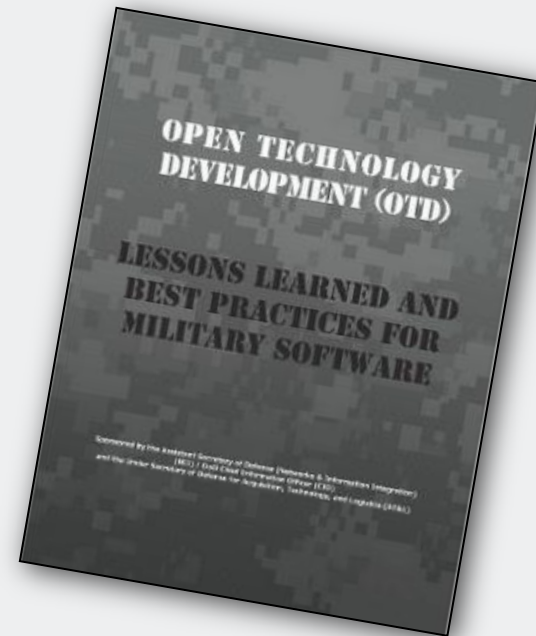
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Existing Projects

- Many solutions already exist, don't reinvent wheels
- Discover previous success and failures
- Find potential partners with similar needs and ideas

Why OSS

Existing Projects

New Projects

Highly Adaptable

Cost-Effective Solutions

Security Model

New Projects

- OSS new projects to increase innovation, reuse, etc.
- A primary tool to establish a community
- Can steer innovation to a higher-level of competition (infrastructure vs. application layer)
- Low barrier to start - licensing choice one of the most important decisions

Why OSS

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Cost-Effective Solutions

Security Model

Highly Adaptable

- Time better spent on innovation than re-establishing the baseline
- Create and expand pluggable platforms



Why OSS

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New Projects

Highly Adaptable

Cost-Effective Solutions

Security Model

Cost-Effective Solutions

- Redundant problems should never be met with redundant problem solving
- Utilizes the ***r³ Principle***
 - Reuse when Possible
 - Repurpose when Practical
 - Recycle when Plausible

Why OSS

Existing Projects

New Projects

Highly Adaptable

Cost-Effective Solutions

Security Model

Security Model

- Built On Actual Hardening Rather Than Obfuscation
- Wide Peer Review
- The Naked Truth

"If we all had to walk around naked we'd all spend more time in the gym." - Jim Whitehurst, Red Hat CEO

Why OSS

Existing Projects

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Highly Adaptable

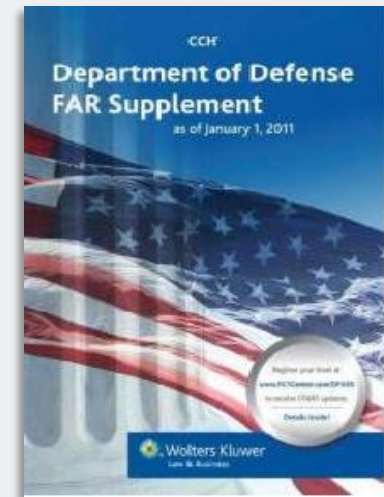
Cost-Effective Solutions

Security Model

OPEN SOURCE IN THE DEPARTMENT OF DEFENSE

FAR & DFARS Regulations

- OSS is considered “commercial computer software” and therefore allowable under the United States Code, the Federal Acquisition Regulations (FAR), and the Defense Federal Acquisition Supplement (DFARS)
- OSS often considered “commercial off-the-shelf” (COTS) per 41USC403
- OSS is preferred as commercial and nondevelopmental items (NDI) “to the maximum extent practicable” under 10 USC 2377



[41 USC 403](#); [FAR 2.101](#), [FAR 12](#); [DFARS 212.212](#), [DFARS 252](#)

OSS in the DoD

FAR/DFARS Regulations

DoD Policy

The ‘Value Added’

Inter-Agency Sharing

Re-Deployable Solutions

Vendor-Neutral

Obstacles for DoD

Military Policy Governing OSS

OSS in the DoD

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Obstacles for DoD

- **DoD Policy**

- 2003 OSS in the DoD (Stenbit Memo)
- 2006 Open Technology Development Roadmap
- 2009 Clarifying Guidance Regarding Open Source
- 2010 Better Buying Power (Carter Memo)

- **U.S. Army**

- AR 25-2 p4-6

- **U.S. Navy**

- 2007 Open Source Software Guidance

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Obstacles for DoD

The "Value Added"

- Cost-Effective Development
- Highly Efficient
- Increased productivity
- Increased innovation
- Increased collaboration

Inter-Agency Sharing

- Without communities of interest around Defense-related OSS projects, they too often go unknown and unused
- Improve the project by involving other-agency input and collaboration
- NASA found it is easier to share agency-to-agency under OSS license than under government re-use regulations

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Obstacles for DoD

Re-Deployable Solutions

- The military lends itself to redundant problems
- Redundant problems should never be met with redundant problem solving.
- Open Source enables the reuse of solutions to common problems
- Adaptability to expand from a basic problem into a new solution or service.

OSS in the DoD

FAR/DFARS Regulations

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Re-Deployable Solutions

Vendor-Neutral

Obstacles for DoD

Vendor-Neutral

- Readable source code makes it impossible to become locked-in with a specific vendor
- Future vendor competition
- Rapid deployment is a strong case in the DoD
- IT tools for evolving mission solutions.

Obstacles for DoD

- **Ensure OSS fairly considered in acquisitions**
 - Some acquisition processes/policies not updated for OSS
 - Many PMs unfamiliar with OSS: don't consider it
 - Many OSS projects ignore solicitations & RFPs
- **Different economics: Pay-up-front for improvements**
 - Some policies presume proprietary COTS' pay-per-use model
 - Can pay in \$ or time, can compete, can cost-share with others
- **Transition costs of pre-existing systems**
 - Especially if dependent on proprietary formats/protocols/APIs
 - Use open standards so can switch (multi-vendor, no 'RAND' patents)
- **Emphasize web-based apps/SOA/platform-neutral**
 - test it!
 - Vendor lock-in often increases TCO; transition may be worthwhile

OSS in the DoD

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Obstacles for DoD

Getting Involved

Attend Events

Engage the Community

Collaborate and Share

Attend Events

- Local Events
 - Meet-ups
 - Breakfasts / Lunches / Drinks
- National Events
 - Mil-OSS LANT (Charleston, May 2012)
 - Mil-OSS WG4 (Orlando, October 2012)
- Start Another One
 - If you have idea there are many within the community to help make it happen

Engage the Community

- Subscribe to and post in the Google Group
- Engage on Facebook & Twitter
- Chat with members at local events



Getting Involved

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Collaborate and Share

Collaborate and Share

- Start new projects
- Recruit Mil-OSS members to participate
- Help others understand OSS
- See OSS happening in the Government, tell others
- When you see something, say something.

Getting Involved

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Engage the Community

Collaborate and Share

Contact Information

Website mil-oss.org

Phone 202.455.8089

General Email contact@mil-oss.org

Media Inquiries publicaffairs@mil-oss.org

Presentation Information

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