CYBER SECURITY DIVISION
2013 PRINCIPAL INVESTIGATORS MEETING

Homeland Open Security Technology (HOST)

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September 16, 2013
Connecting GovIT with Open Security Solutions

Original Slide Design Stolen From Dr. Doug Maughan, Circa 2000.
Homeland Open Security Technology (HOST)

Georgia Tech Research Institute
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September 16, 2013
Performers

Georgia Tech Research Institute

IDA

Bryant Group llc

Open Source Software Institute

Radiant Blue Technologies
Cybersecurity threats to the Homeland Security Enterprise are ever increasing while Government IT is expensive and slow to adapt.

**NEED:** Affordable, adaptable, and timely innovation is needed.

Cybersecurity innovation from government research is not transitioning to the market quickly enough.

**NEED:** Alternative approaches to commercialization are needed to increase discoverability of and accessibility to these innovations.
Approach

Open Source Software (OSS)
Software for which the human-readable source code is available for use, study, re-use, modification, enhancement, and re-distribution by the users of that software.

Reference: 16 October 2009 memorandum from the DoD CIO, "Clarifying Guidance Regarding Open Source Software (OSS)"

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Free Software, Libre Software, Free Software, Open Source Software (FOSS or F/OSS), Free/Libre/Open Source Software (FLOSS)

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Non-Commercial Software, Freeware, Open Architecture, Open System, Open Interface/Standard/Format, Shareware

Open Security
Application of open source software (OSS) approaches to help solve cyber security problems…In short, open security improves security through collaboration.

The mission of the Homeland Open Security Technology (HOST) program is to investigate open security methods, models and technologies and identify viable and sustainable approaches that support national cyber security objectives. The foundational technology for the purposes of HOST is based on open source software.

Discovery • Collaboration • Investments
• Discover questions & problems relating to Open Security
• Discover answers & solutions
• Let others know what we’ve discovered

• OSS in Government
• “Open security” definition
• Frequently Asked Questions (FAQ)
• Various case studies, e.g. OpenSSL, OSS Forensics
• Outreach and training
Collaboration

- Communications, Community, and Outreach
- Open Security Community Open-Sec.org
- BSides OSS
- Government Open Source Conference
- DHS OSS Policy
- OpenCyberSecurity.org
  - Open security
  - OSS ecosystem
Investments

- Domains or technologies needing push/refresh
- Certifications, accreditations, and validations
- Proof of concepts and prototyping

- **Current Investments:**
  - Open Information Security Foundation
  - Suricata IDS
  - OpenSSL FIPS 140-2 Validation
  - Open Web Application Security Guidebook Project
  - City of Portland IDS/IPS Pilot Project
  - Trusted Code Initiative

- Seed and collaborative investments
- Peer reviewed applications
- Shared as case studies
Benefits

Governments
- Increase discovery and accessibility to innovative cybersecurity technologies
- Potential commoditization of effective cybersecurity through economics of scale

Innovators
- Active support in transitioning technologies to open source software
- An evolving and growing open security market
- Opportunities for collaborative innovation

OSS and Security Communities
- Alternative resources for government market requirements
- Increased awareness of government cybersecurity technologies
- Opportunities for collaborative innovation
Current Status

Open Security defined

Discovery - Initial research approved for publication, multiple case studies complete, multiple outreach opportunities

Collaboration - OpenCyberSecurity.org almost ATOed, 250 open security technologies cataloged, Open-Sec Community established, multiple outreach opportunities

Investments - Suricata transitioned, multiple investments in progress and almost complete, call for 2013 investments closed
Next Steps

*Discovery* - Continue FAQ update and maintain, start development of “How to use OSS in the government”, continued outreach, video documentation

*Collaboration* - Engage DHS S&T Innovators, Engage DHS about OSS policy, launch OpenCyberSecurity.org, refresh open security catalog, GOSCON in Portland, OR (state & local), BSides OSS in DC (federal and industrial base), continued outreach, integrate with SWAMP

*Investments* - Council of peers review applications, manage current investments, complete case studies, continue application processing
Should I open source?  
I want to open source.  
I already open sourced!