

# **Town Hall** Monday, August 15 10:00 AM PT

### Housekeeping

- Thank you for joining us today! We will begin at 10:02a PT.
- While we wait for everyone to join, please take a moment to do one (or more) of the following:
  - Please add questions using the Zoom Q&A feature
  - Follow us on Twitter: @theopenssf
  - Sign Up for edX training: <u>https://openssf.org/training/courses/</u>
  - Visit the Website! <u>https://openssf.org/</u>
- This meeting is being recorded



### **Antitrust Policy Notice**

Linux Foundation meetings **involve participation by industry competitors**, and it is the intention of the Linux Foundation to conduct all of its activities in accordance with applicable antitrust and competition laws. It is therefore extremely important that attendees adhere to meeting agendas, and be aware of, and not participate in, any activities that are prohibited under applicable US state, federal or foreign antitrust and competition laws.

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### **Code of Conduct**

The Linux Foundation and its project communities are **dedicated to providing a harassment-free experience** for participants at all of our events, whether they are held in person or virtually.

All event participants, whether they are attending an in-person event or a virtual event, **are expected to behave in accordance with professional standards**, with both this Code of Conduct as well as their respective employer's policies governing appropriate workplace behavior and applicable laws.

https://lfprojects.org/policies/code-of-conduct/



### Housekeeping

# Please submit your questions during the meeting by using the Q&A feature on Zoom.



### Thank You!



## Agenda

- Welcome
- OpenSSF Tour and Membership Update
  - Brian Behlendorf, OpenSSF
- Securing Software Repos
  - Dustin Ingram, Google
- Securing Critical Projects and Security Audits
  - Amir Montazery, OSTIF
- Signing, Verifying and Protecting Software with Sigstore
  - Asra Ali, Google
- How to Get Involved in OpenSSF Working Groups and Projects
  - David A. Wheeler, Linux Foundation / OpenSSF
- Q&A



# **OpenSSF Tour and Membership Update**



## **Brian Behlendorf** General Manager, OpenSSF

Brian Behlendorf is General Manager for the OpenSSF.

Brian has a long history with open source software, going back to co-founding the Apache web server project in 1995, and from that point forward founding or working for a series of companies (Wired Magazine, Organic, CollabNet), non-profits (like the World Economic Forum), and governments (Office of Science and Tech Policy 2009, advisor to HHS ONC 2010).

Prior to taking this role, Brian served as the General Manager for Blockchain, Healthcare and Identity at the Linux Foundation. In this capacity, Brian led both the Hyperledger open-source enterprise blockchain software initiative, as well as Linux Public Health, which builds software and services that assist public health authorities in the fight against the pandemic.

Brian currently also serves on the board of directors of the Mozilla Foundation and the Electronic Frontier Foundation.



# Purpose

To inspire and enable the community to secure the open source software we all depend on, including development, testing, fundraising, infrastructure, and support initiatives driven by Working Groups (non-software focused) and Projects (software focused), each a "Technical Initiative".





### **OpenSSF Structure**







#### **General and Associate Members**





### Meet the OpenSSF Governing Board





Adrian Ludwia Chief Trust Officer, Atlassian



Andrew Van Der Stock Bob Callaway (TAC Chair) Executive Director, OWASP Tech Lead & Manager, Google Open Source Foundation



CTO, Sonatype



Johnathan Hunt Chief Security Strategist, VP Security, GitLab Huawei Technologies Co.,



Ltd.

**Kit Colbert** Chief Technology Officer,



Mark Russinovich Azure CTO and Technical Fellow, Microsoft



**Chris Wright** Senior Vice President and Chief Technology Officer, Red Hat



Engineering, Meta



Security Team

**Eric Brewer** VP of Infrastructure & Google Fellow, Google

Erik Ekkuden Group Chief Technology Officer, Ericsson



Mark Ryland Director, Office of the CISC **AWS Security** 

**Mike Hanley** Neil Allen Chief Security Officer, GitHub Head of Security Engineering, Morgan Stanley





**Greg Lavender** Chief Technology Officer, Intel



**Guy Podjarny** Co-Founder, Snyk



Ian Coldwater Security Community Individual Representative



Jamie Thomas **OpenSSF Board Chair and** General Manager, Systems Strategy and Development, IBM



Rao Lakkakula JPMorgan Chase



Scott Roberts Cloud CISO, Coinbase



Head of Open Source, Cisco

VMware

**Stephen Chin** VP of Developer Relations,

JFrog



NCC Group



Senior Vice President, Application Architecture, Fidelity



John Heimann Vice President, Security Programs, Oracle



John Roese Global Chief Technology Officer Products and **Operations**, Dell Technologies



Subha Tatavarti CTO, Wipro



Tracy Ragan CEO and Co-Founder, DeployHub







#### Meet the OpenSSF Technical Advisory Council



Abhishek Arya Principal Engineer and Manager, Google Open Source Security Team



Aeva Black (TAC Vice Chair) Open Source Hacker, Microsoft Azure Office of the CTO



Bob Callaway (TAC Chair) Tech Lead & Manager, Google Open Source Security Team



**Christopher Robinson "CRob"** Directory of Security Communications, Intel



**Dan Lorenc** CEO, Chainguard



**Josh Bressers** VP of Security, Anchore



Luke Hinds Red Hat



#### **Meet the OpenSSF Staff**





Jenn Bonner Senior Program Manager



Director of Open Source Supply Chain Security



Jennifer Bly Senior Marketing Manager



**Donald Liu** Regional Tech Evangelist, Asia Pacific



**Jory Burson** Program Director



Dorothy Cheng Marketing Manager, Asia Pacific



Julian Gordon





VP of Community Engagement and Outreach



**Yang Hin** Director, China at Linux Foundation Asia Pacific



# We're Hiring!

#### Lead Program Manager

Security Researcher / Analyst

### Software / Security Engineer

Current Open Alpha-Omega Positions



### What's Been Happening? - Recent Blog Posts

- 1. <u>OpenSSF Funds Python and Eclipse Foundations and</u> <u>Acquires SOS.dev through Alpha-Omega Project</u>
- 2. <u>OpenSSF Makes Secure Software Development Training</u> <u>Available on Organizations' Learning Management</u> <u>Systems</u>
- 3. <u>New Untold Stories of Open Source Podcast Features</u> <u>OpenSSF's Brian Behlendorf on his Journey to Securing</u> <u>the FOSS Software Supply Chain</u>
- 4. <u>State of Open Source Security 2022 from Snyk & the</u> <u>Linux Foundation</u>
- 5. <u>Free Training Course Teaches How to Secure a Software</u> <u>Supply Chain with Sigstore</u>
- 6. <u>Results of Sigstore and slf4j Security Audits Including 1</u> <u>High Risk Vulnerability Found and Fixed</u>







### What's Been Happening? - Recent Blog Posts

- 6. <u>OpenSSF Day Videos Now Available from</u> <u>Open Source Summit North America</u>
- 7. <u>OpenSSF Supports Movements toward</u> <u>Multi-Factor Authentication</u>
- 8. Join Us at the First OpenSSF Open Source Security Meetup in India
- 9. <u>Take survey to help improve software</u> <u>supply chain integrity practices</u>
- 10. <u>Get Up to Speed with OpenSSF at Next</u> <u>Virtual Town Hall</u>
- 11. <u>Secure Coding Practice A Developer's</u> <u>Learning Experience of Developing Secure</u> <u>Software Course</u>





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#### Software Supply Chain Security Survey

OpenSSF

Chainguard

#### **Developing Secure Software Course** A Developer's Learning Experience



Harimohan Rajamohanan Solution Architect and Full Stack Developer Open Source Program Office Lab45, Wipro Limited



# **OpenSSF Testimony to US House Committee on Science, Space and Technology**

On May 11, 2022 Brian Behlendorf, OpenSSF General Manager, testified to the United States House of Representatives Committee on Science, Space, and Technology

Brian's testimony shared the work being done within the Open Source Security Foundation and broader open source software community to **improve security and trustworthiness of open source software**.

Others testifying:

- Lauren Knausenberger, Chief Information Officer, Department of the Air Force
- Amélie Erin Koran, Non-Resident Senior Fellow, The Atlantic Council
- Dr Andrew Lohn, Senior Fellow, Center for Security and Emerging Technology, Georgetown University

<u>US Congress, House Committee on Science, Space & Technology- Securing The</u> <u>Digital Commons: Open-Source Software Cybersecurity</u>.



#### **OpenSSF Day at Open Source Summit North America**

- First ever OpenSSF Day!
- June 20, 2022 in Austin
- Great conversations and turn out
- Session recordings are available on YouTube channel - <u>OpenSSF Day</u> <u>Playlist</u>





### **OpenSSF Day at Open Source Summit Europe**

- Hosting 2nd ever OpenSSF Day at Open Source Summit EU in Dublin
- Tuesday, Sept 13th
- <u>Register today</u>
- Would you like to be involved? Let us know!





## **Open Source Software Security Mobilization Plan**

- First-of-its-kind plan to broadly address open source and software supply chain security
- Developed collaboratively by the OpenSSF Governing Board and expert community
- Outlines approximately \$150M of funding over two years to rapidly advance well-vetted solutions to ten major problems the plan identifies



## Launched at the Open Source Software Security Summit II

- Washington, DC on May 12 13, 2022
- The Linux Foundation and OpenSSF gathered a cross-section of open source developer & commercial ecosystem representatives along with leaders & experts from key U.S. federal agencies
- We reviewed the plan together, both at a high level and into specifics, to ensure they were the right targets, and that they built on the work the US Government had already begun.





## **Goals Identified**

### Securing OSS Production

Improving Vulnerability Discovery & Remediation Shorten Ecosystem Patching Response Time



# \$30M in Initial Pledges

- A subset of participating organizations in the Open Source Security Summit II collectively pledged an initial \$30M
- Including Amazon, Ericsson, Google, Intel, Microsoft, and VMWare
- As the plan evolves further funding will be identified and work will begin as individual streams are agreed upon





### Cyber Safety Review Board Report on Log4j Event



Review of the December 2021 Log4j Event

Publication: July 11, 2022 Cyber Safety Review Board

CYBER SAFETY REVIEW BOARD

- Final Report of the Cyber Safety Review
  Board (CSRB) <u>Review of the December 2021</u>
  <u>Log4j Event</u> July 11
- Log4j has become an "endemic vulnerability" that will be exploited for years to come
- OpenSSF mentioned 29 times
- Repeatedly refers to streams in the Mobilization Plan as key to addressing many of the systemic issues that led to Log4j event



# Securing Software Repos by Dustin Ingram, Google



## **Dustin Ingram** Senior Software Engineer, Google

Dustin is a software engineer on Google's Open Source Security Team, where he works on improving the security of open-source software that Google & the rest of the world relies on.

He's also a director of the Python Software Foundation, and maintainer of the Python Package Index.



### **Securing Software Repos**

#### **Motivation**

This working group is for and focuses on the maintainers of software repositories, software registries, and tools which rely on them, at various levels including system, language, plugin, extensions and container systems. It provides a forum to share experiences and to discuss shared problems, risks and threats.





### **Securing Software Repos**

#### Objective

- Enable faster cross-pollination of existing ideas across ecosystems (including technical measures, infrastructure approaches, and policies)
- Act as a clearinghouse for new ideas that could benefit multiple ecosystems
- Enable maintainers to better align and coordinate policies and changes between different ecosystems
- Identify & escalate needs for infrastructure and assistance for shared tooling and/or services (to be filled by supportive or sponsoring organizations (such as the OpenSSF))
- Develop methods for sharing data related to software repositories, software registries, and tools which rely on them
- Delegate solving particular problems and goals to subgroups or other workgroups as appropriate



### **Securing Software Repos**

Join us!

- <u>https://github.com/ossf/wg-securing-software-repos</u>
- #wg\_securing\_software\_repos in the OpenSSF slack



# Securing Critical Projects and Security Audits by Amir Montazery, OSTIF



# **Amir Montazery** Managing Director, OSTIF

Amir is co founder and managing director of the Open Source Technology Improvement Fund, Inc (OSTIF). OSTIF specializes in helping open source projects improve their security posture with security audits and associated work. Amir works on OSTIF's partnerships and outreach, responsible for setting up strategic partnerships with Linux Foundation, Google, and Omidyar Network among others.

Working with Linux Foundation since 2020 and now OpenSSF, OSTIF contributes insight and experience in open source security to working groups Securing Critical Projects and Identifying Security Threats. OSTIF has facilitated audits for Linux Foundation and OpenSSF projects and has found and fixed over 100 security vulnerabilities, including over 25 CVEs, in the LF ecosystem alone.



### **Securing Critical Projects**

- Main Objective: Effective, inclusive, and repeatable process for nominating and identifying critical projects.
  - Phase I: Determine and Build the 'Set'
    - Using terminology of "set" to indicate that there is no hierarchy or prioritization at this phase.
    - Objective: Provide a set to the community.
    - Exploring using GitHub as a tool
      - Track changes and nominations
      - Just using GitHub as a tool, not excluding non gh projects
    - Building off of previous work, like 1st iteration of projects and shortlist of projects to audit



### **Security Audits**

- Sigstore Audit (sponsored by sigstore project)
  - 1 High Severity Vulnerability Found and Fixed
- Slf4j Audit (sponsored by Google)
  - Top Project on Harvard Census II research.
  - Validation and review, 1 low risk vulnerability found and fixed.
- Associated work
  - Curl Security Audit In Progress (sponsored by OpenSSF)
  - CNCF Impact Report: 7 projects, 132 Security Improvements, 45 CVEs Reported and Fixed from November 2021 - July 2022
  - Google Impact Report: In progress
  - Planning more audits and bringing on new partners for 2023



# Signing, Verifying and Protecting Software with Sigstore by Asra Ali, Google



## Asra Ali Software Engineer, Google

Asra Ali is a Software Engineer at Google.

Asra is Software Engineer on the Google Open Source Security Team (GOSST) where she works on projects like Sigstore and SLSA (Software Levels for Software Artifacts). She's a maintainer of Sigstore's Rekor and Root of Trust, and of the The Update Framework's go-tuf implementation. She also creates tooling to achieve SLSA levels using Sigstore's services. In previous times, she worked on the open source proxy Envoy where she focused on security and fuzzing.

Complimenting the security work she does during her day job, she is also interested in privacy-preserving technologies. She develops modern cryptographic libraries implementing Fully Homomorphic Encryption. In her past life, she studied and researched number theory and elliptic curves. She's passionate about making the internet a more private and secure space.

She lives in Austin with her cat Nessa, and loves to be outside in nature.



### Signing, Verifying and Protecting Software with Sigstore

- General Availability (GA) projected for October!
  - Dry run of the on-call rotation
- Root signing v4 occurred successfully
  - A key rotation was performed: welcome Joshua Lock (VMWare) as a new keyholder
- GitHub announces improvements to NPM registry security with Sigstore adoption
  - Request for Comments (RFC); Wired article
- Technical Steering Committee (TSC) introduces 2 new members: Trevor Rosen (GitHub) and Santiago Torres-Arias (Purdue University)



### Signing, Verifying and Protecting Software with Sigstore

Lots of adoptions and integrations!

- Urllib3 adopts Sigstore for signing releases
- Trail of Bits releases <u>GitHub Actions</u> for signing Python packages
- Sigstore in production pipeline of Edgeless Systems' latest product
  <u>Constellation</u>
- Transparently Immutable Tags using Rekor: <u>tlogistry.dev</u> (<u>blog post</u>)



# How to Get Involved in OpenSSF Working Groups and Projects David A Wheeler



# **David A. Wheeler**

#### Director of Open Source Supply Chain Security, Linux Foundation

Dr. David A. Wheeler is an expert on open source software (OSS) and on developing secure software. His works on developing secure software include "Secure Programming HOWTO", the Open Source Security Foundation (OpenSSF) Secure Software Development Fundamentals Courses, and "Fully Countering Trusting Trust through Diverse Double-Compiling (DDC)". He also helped develop the 2009 U.S. Department of Defense (DoD) policy on OSS.

David A. Wheeler is the Director of Open Source Supply Chain Security at the Linux Foundation and teaches a graduate course in developing secure software at George Mason University (GMU). Dr. Wheeler has a PhD in Information Technology, a Master's in Computer Science, a certificate in Information Security, a certificate in Software Engineering, and a B.S. in Electronics Engineering, all from George Mason University (GMU). He is a <u>Certified Information</u> <u>Systems Security Professional (CISSP)</u> and Senior Member of the Institute of Electrical and Electronics Engineers (IEEE). He lives in Northern Virginia.



### **OpenSSF Structure**



### Working Groups (and their projects/SIGs) & Associated Projects

#### **Best Practices**

Identification, awareness, and education of security best practices

- OpenSSF Best Practices badge
- <u>Scorecards</u>
- Great MFA distribution SIG
- <u>Common Requirements Enumeration</u>
  <u>(CRE)\*</u>
- <u>Secure Software Development</u>
  <u>Fundamentals</u> courses SIG
- Security Knowledge Framework (SKF)\*
- Education SIG (new!)

#### **Vulnerability Disclosures**

Efficient vulnerability reporting and remediation

- <u>Guide to coordinated vulnerability disclosure</u> for OSS projects
- <u>Vulnerability Disclosures Whitepaper</u>
- osv-schema

#### **Identifying Security Threats**

Security metrics/reviews for open source projects

- security-reviews,
- Project-Security-Metrics (dashboard)
- <u>SECURITY-IMPACTS.yml spec</u>

#### **Supply Chain Integrity**

Ensuring the provenance of open source code

 <u>Supply-chain Levels for Software Artifacts</u> (SLSA) [repo]

#### Securing Critical Projects

Identification of critical open source projects

- criticality score
- <u>Harvard research</u>
- package-feeds / package-analysis
- <u>allstar</u>

#### **Associated Projects**

- Project Alpha-Omega
- Project Sigstore
- GNU Toolchain Infrastructure (GTI) support

#### Security Tooling State of the art, globally accessible security tools

- ossf-cve-benchmark
- Web Application Definition spec
- <u>fuzz-introspector</u>

#### **Securing Software Repositories**

Collaboration of repositories & tools to improve security

Coming soon!

### How OpenSSF Projects & SIGs Work Together



# How to get involved

- Decide which WGs/projects/SIGs you're interested in
  - <u>https://openssf.org/community/openssf-working-groups/</u>
- Each WG has virtual meetings on alternate weeks visit / join / participate!
- Each WG has Slack channel & mailing list visit / join / participate!

Please get involved!

## Join a Technical Working Group





#### **Open Source Security Foundation (OpenSSF)**

⊙ San Francisco, CA ♂ https://openssf.org

Overview 
 ☐ Repositories 43 
 ☐ Projects 2
 ○ Packages 
 A People 12
 ☐

#### Pinned

#### g wg-identifying-security-threats Public

The purpose of the Identifying Security Threats working group is to enable stakeholders to have informed confidence in the security of open source projects. We do this by collecting, curating, and ...

#### Grand wg-best-practices-os-developers Public

The Best Practices for OSS Developers working group is dedicated to raising awareness and education of secure code best practices for open source developers.

O JavaScript ☆ 258 ♀ 25

#### wg-supply-chain-integrity Public

Our objective is to enable open source maintainers, contributors and end-users to understand and make decisions on the provenance of the code they maintain, produce and use.

公 132 8 21

#### wg-security-tooling Public

OpenSSF Security Tooling Working Group

☆ 237 ¥ 35

#### g wg-vulnerability-disclosures Public

The OpenSSF Vulnerability Disclosures Working Group seeks to help improve the overall security of the open source software ecosystem by helping mature and advocate well-managed vulnerability report...

🛱 137 😵 31

#### wg-securing-critical-projects Public

Helping allocate resources to secure the critical open source projects we all depend on.

\$ 233 \$ 23

People



Top languages

● Go ● Python ● JavaScript ● Perl

SCSS



#### **Subscribe to the Mailing List**

### openssf-announcements



#### OpenSSF Announcements openssf-announcements@lists.openssf.org

**OpenSSF** Announcements

#### **Group Information**

- 231 Members
- Sa Topics, Last Post: Aug 2
- Started on 09/28/20
- Feed

#### **Group Email Addresses**

Post: openssf-announcements@lists.openssf.org Subscribe: openssf-announcements+subscribe@lists.openssf.org Unsubscribe: openssf-announcements+unsubscribe@lists.openssf.org Group Owner: openssf-announcements+owner@lists.openssf.org Help: openssf-announcements+help@lists.openssf.org

#### Group Settings

- C This is a subgroup of main.
- A Only moderators can post to the group.
- ✓ Posts to this group do not require approval from the moderators.
- A Messages are set to reply to sender.
- Subscriptions to this group do not require approval from the moderators.
- Archive is visible to anyone.
- O Members can edit their messages.
- O Members can set their subscriptions to no email.



### **Attend Public Meetings**

## bit.ly/ossf-calendar





### **Message on Slack**



✓ Joined • 1,424 members • This channel is for workspace-wide communication and announcements

**# wg\_security\_tooling** 442 members · This WG is chaired by @Josh Bressers

#### # wg\_supply\_chain\_integrity

397 members · Our objective is to enable open source maintainers, contributors and end-users to understand and make decisions on the provenance of the code they maintain, produce and u

#### # wg\_securing\_critical\_projects

397 members · Helping allocate resources to secure the critical open source projects we all depend on. This WG is chaired by @Amir Montazery and @Jeff Mendoza

#### # wg\_vulnerability\_disclosures

344 members · OpenSSF Vulnerability Disclosures Working Group seeks to help improve the overall security of the OSS ecosystem by helping mature and advocate well-managed vulnerability.

#### # wg\_best\_practices\_ossdev

332 members • The Best Practices for OSS Developers working group is dedicated to raising awareness and education of secure code best practices for open source developers. This WG is ch

# slsa

# general

302 members · discuss slsa framework



#### **Follow Us on Social Media**



# **Become a Member**

https://openssf.org/join/

Questions? Contact membership@openssf.org



### Your Get Involved Checklist

- Join a Technical Working Group (Slack/Email/Meetings) https://github.com/ossf
- Join the Announcements Mailing List subscribe to openssf-announcements
- Join our Public Meetings <u>https://bit.ly/ossf-calendar</u>
- Join our Slack Channel <u>https://slack.openssf.org</u>
- Watch YouTube Channel <u>https://www.youtube.com/c/OpenSSF</u>
- LinkedIn https://www.linkedin.com/company/openssf/
- Twitter <u>https://twitter.com/theopenssf</u>
- Become Organizational Member -<u>https://openssf.org/join/</u> or email - <u>membership@openssf.org</u>
- Feedback? Reach out via email <u>operations@openssf.org</u>



### **Take our Survey**

# forms.gle/5GiuF7gbDYLQdym38

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August 2022 Op Can We Help Yo How can we help you with your op	enSSF Town Hall: How
First Name and Last Name	
How long have you participated	l in the OpenSSF? *







# DpenSSF OPEN SOURCE SECURITY FOUNDATION

# **Thank You!**