Starting and scaling an Open Source Office

The good, the bad and the ugly

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Open Source Summit Summit North America 2019
About me

Head of Open Source at HERE Technologies
global location cloud company

200+
countries mapped

HERE Maps on board of
100M
vehicles and counting

9,000+ employees in 56 countries

Active contributor

OSS Review Toolkit
http://oss-review-toolkit.org

SPDX
OSS Tooling Group

European Chapter

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Work In Progress

Sharing lessons learned of our ongoing journey scaling our Open Source office
Story Time

How we started our Open Source Office in 2016
Companies must master open source if they are to master software.
Essential Elements to Master Open Source

COMMUNITY

CONTRIBUTION

COMPLIANCE

CONSUMPTION
Enable better products

by

Maximizing the benefits of Open Source

&

Minimizing risks

Open Source Office Goal
Our open source journey

- **04/2016**
  - Open Source office created

- **12/2015**
  - 3 new investors

- **01/2017**
  - 30+ repositories on GitHub

- **10/2017**
  - OSS Review Toolkit open-sourced

- **11/2018**
  - co-founder OSS Tooling group with

- **01/2018**
  - Joining the Linux foundation, TODO group & AGL

- **03/2018**
  - Founding contributor ClearlyDefined

- **10/2018**
  - co-founder TODO EU with

- **01/2019**
  - 130+ repositories on GitHub

- **01/2019**
  - Founding contributor Urban Computing Foundation

- **04/2019**
  - Harp.gl open-sourced

- **05/2019**
  - Founding contributor Urban Computing Foundation

- **03/2020**
  - Founding contributor Urban Computing Foundation
Handling compliance and contributions from Day 0 with a small team

Solving challenges is what engineers do.
Translating Scaling Challenges into **Process and Tooling** Requirements

- **Ways of working/shift-left** - integrated with SW dev process
- **Scales cost-effectively** - whether running 10 or 10K reviews
- **Self-service** - lightweight review process executed by devs
- **Low learning curve** - build on common dev tools with clear & concise docs
- **Trust but verify** - able to check each workflow step in detail if needed
- **Turn-key integration** - no change to SW build needed for review
- **Configurable** - enable teams to correct to match reality
- **Based on standards** - for future proofing, think SPDX
- **Analytics** - insights in SW inventory and OSS tooling
- **Accuracy** - detection of license context and copyright holders
- **Freshness** - scan early and often
- **Speed** - highly automated
Early-on Lessons

**Good**
- Sufficient getting started material available
- Welcomed with open arms by your peers

**Bad**
- Contributing at scale as a company is complex topic (culture + tools)
- Common misconception: engineers who have contributed before know how to manage Open Source projects

**Ugly**
- Compliance at scale is fire fighting
Build
Buy
or
Share?

Choices to make
Assessing Market Solutions

Tested more than 20+ commercial and FOSS solutions on the market which include review workflows, tooling, etc. ...

You can just buy solutions, build few missing pieces and be done, right?

Modern SW dev practices are not fully supported by current FOSS review tooling available on the market.
Started building a new tool 3 years ago…

OSS Review Toolkit

but challenges are too big for single company…

We work together on

open source standards and tools ecosystem
Organizational Lessons Learned

• Open source solutions to solve problems coming from FOSS community is the way forward. Several collaborations working on closing the gaps.
• People need to see scale of faced challenges to understand them
• Management buy-in requires turning open source challenges into revenue growth/cost savings via open source product strategy

Still learning
• Scaling our Open Source Office with business needs
• Managing the compliance challenge: Balance vs. Sustainable vs. Maintainable
• Best way to educate ORT users how to resolve license issues
• Building up a open source friendly culture
• Contributing at scale as a company
Process Lessons Learned

• Only culture, data and risk driven processes scale
• Scaling requires a trust but verify approach
• Shift-left compliance is a no brainer but difficult to achieve
• People do not expect Agile in compliance processes
• Do OSS reviews for internal SW but with more relax checks
• Respect TL;DR – show only what is applicable in bit size chunks
• People trust bots in processes more than people
• Usage approval = code context + license context + product context

Still learning

• Designing human centric + highly automated processes
Tooling Lessons Learned

• Compliance tools are by default behind build tools changes
• Two questions to ask your compliance vendors
  • How do you determine included OSS?
  • How do you conclude applicable licenses?
• Automation requires more data incl. package level, scope and tree
• Better to be fully in control than to move fast but be restricted in functionality and scaling
• Scaling automation requires setting engineering standards, growing the right culture and participating in the FOSS community

Still learning
• How to fill the gaps between the various OSS-based compliance tools
Thank you

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OSS Review Toolkit
https://github.com/heremaps/oss-review-toolkit

Welcome your feedback and contributions