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YAHOO!
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A Tale of Two Cities:

When Yahoo! + Aol. blended Open Source Programs

March 12, 2019

Prepared by Gil Yehuda

verizon✓

Boil it down to one thing:

Your company needs an Open Source Program

No OSPO → problems
Yes OSPO → benefits

1. Stories
2. Details
3. Q&A

It was the best of times

Verizon acquired AOL. in 2016

Verizon acquired some of Yahoo! in 2017

The unified business unit was called Oath:

It is now called Verizon Media✓

The business combines internet media and consumer experiences with ad tech / B2B brands.

It was the worst of times...

Companies are cool and companies suck

Tech press presents a distorted view of reality

Culture is subjective and measurement is local

Integrating two cultures gets political and ugly

Stories are fun, but we're here to inform / inspire



E Pluribus Unum

Which is where the story gets complicated. This is not a story of two companies, but of 100 companies and thousands of people.

Could this be brought together to make one?

What does “Engineering Culture” mean?

What is the role of engineering w/r/t the company?



How effective is your corporate technical governance?

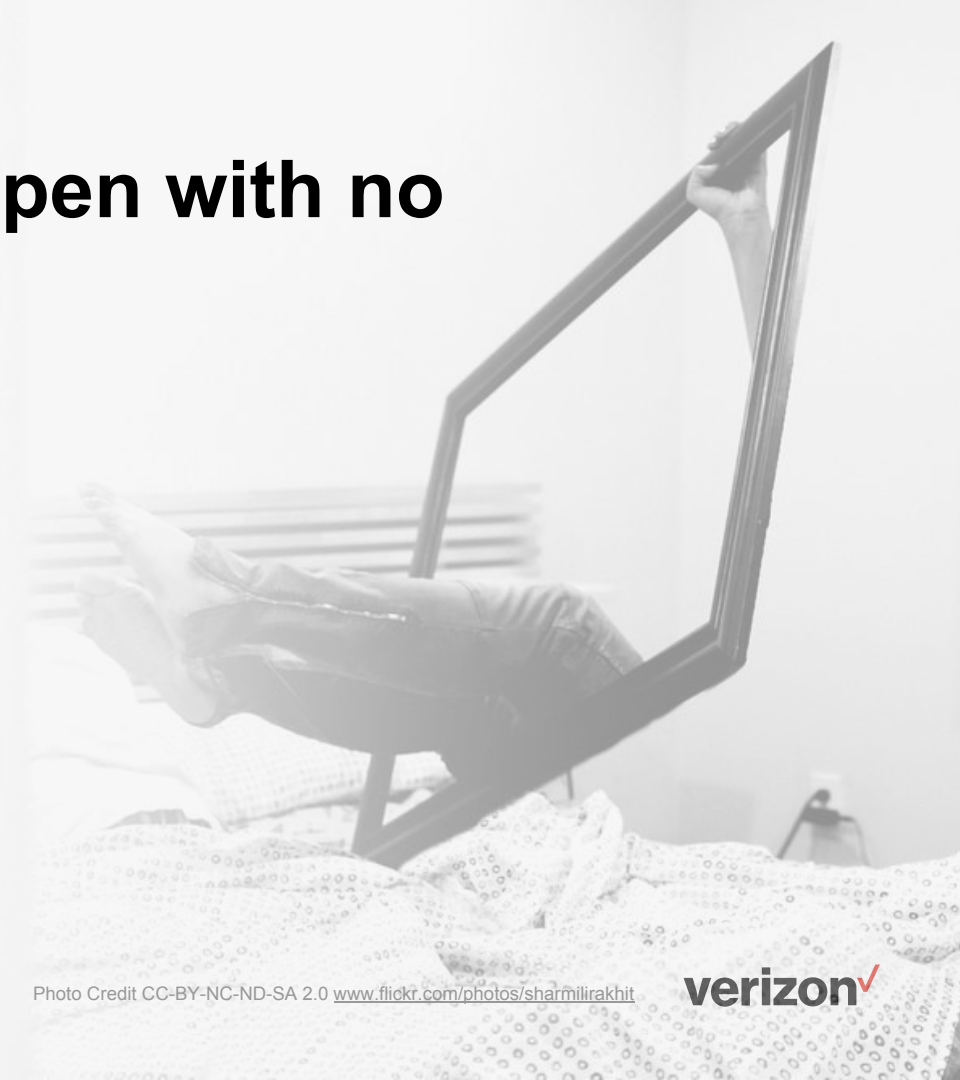
How do others perceive your engineering culture?

Is software created in *anticipation* of a need, or in *response* to a need?

Insight

Why do bad things happen with no central OSPO?

- Engineers have misconceptions about licenses and are afraid to ask for help.
- When engineers don't trust the process, they invent their own rules; inviting more risk.
- It only takes a few people to create a lot of problems.



In “theory” you might face these questions

- Who removes people from your GitHub org when they leave the company?
- Should you use free TravisCI by publishing your *proprietary* code on GitHub?
- Are you one P4ssW0rd away from being hacked if you don't turn on 2FA on the org?
- What if you buy a company and distribute their code without M&A diligence?
- Would anyone actually publish code that is downright embarrassing to your corporate brand?
- Why is it bad to have code on GitHub with no owner, no license?

Problems that creep up when you don't run an OSPO



Tech Debt and Industry Misalignment

Holding an investment in outdated tech that block you from keeping current.



Legal and License Problems

Published projects with wrong or missing licenses. No open source terms in contacts. No license compliance on apps.



Attracting and Retaining Talent

Engineers tend to prefer working at companies with a strong engineering culture that supports open source.



Leaked Information

Former employees with privileged access to repos see your code. Employees publish what they want anywhere.

Blending companies is hard, but...

<Insert profound insight: how to make it easy to blend corporate cultures>

Open Source Community Theory can help.

- Shared Fate
- Shared Faith
- Utility > interaction costs

Maybe we focus on shared objectives?

Control Tech Debt

Open Source keeps us aligned with industry.

Achieve Excellence

By using open source properly, we reduce abandonment and rework.

Legal Compliance

At least to avoid dealing with any legal problems.

and shared values...

Support Engineers

Make it easy for engineers to interact with open source and with any code for that matter.

Help Hiring / Branding

Leveraging open source to attract talent and reclaim recognition that we're also a tech company.

Be Good Citizens

By giving back to the community, by sharing code and proven effective practices.

The OSPO Team + Partners



Gil Yehuda
Sr. Dir Technology
Washington, DC

Responsible for Yahoo Developer Network and the Open Source Program at Verizon Media.



Ashley Wolf
OS Program Manager +
YDN Product Owner
Los Angeles, CA

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Responsible for mobile app compliance engineering



Rosalie Bartlett
Sr. Community Manager
Sunnyvale, CA

Responsible for external community management



Ben Pearson
Developer Advocate
Austin, TX

Responsible for managing GitHub.com administration



Legal



Paranoids



Tech PR



Developer tools



HR / Talent
Acquisition



External Technology
Partners

What does the OSPO do?



Program Management

Supporting internal engineering groups with open source issues



License inbound review

Reviewing the use of open source in our products and platforms



Contributions to projects

Reviewing contribution policies and CLAs



Compliance Management

Responsible for mobile and TV app compliance engineering and automation



Open Source partnerships

Reset membership with foundations, partner companies



Community development

Promoting projects via blogs, podcasts, and speaking events



New project publication

Reviewing publication steps completed prior to publication



Issue support and resolution

Ensuring issues are addressed on our external repos



Unauthorized code removal

Bug Bounty alerting us of unauthorized code published



Security Alerts

GitHub alerting us about vulnerable dependencies

At the initial, tactical level



Program Management

Set up and communicate



License inbound review

Take them as they come



Contributions to projects

Set up CLA review process with legal



Compliance Management

Install tools and run baseline



Open Source partnerships

Do the minimum



Community development

Create content events, partner with PR



New project publication

Publish process: lightweight and graduated



Issue support and resolution

Get visibility to the problem and triage



Unauthorized code removal

Do a ton of cleanup and tracking



Security Alerts

Set up process and automate it

Where we are now

500+

Engineers pay attention to the OSPO (about 10%)

330

Jira tickets per quarter

7

Strategic projects

16

Promoted projects

440

Active projects

6

Podcasts this year

24

Blog posts this year

19

YouTube videos this year

200

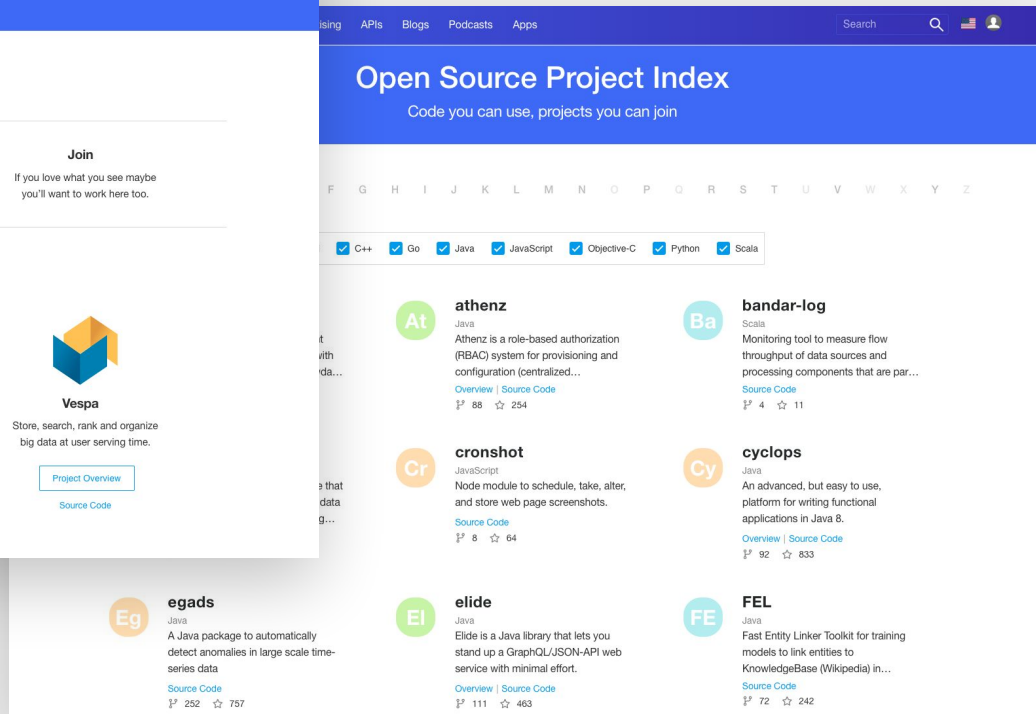
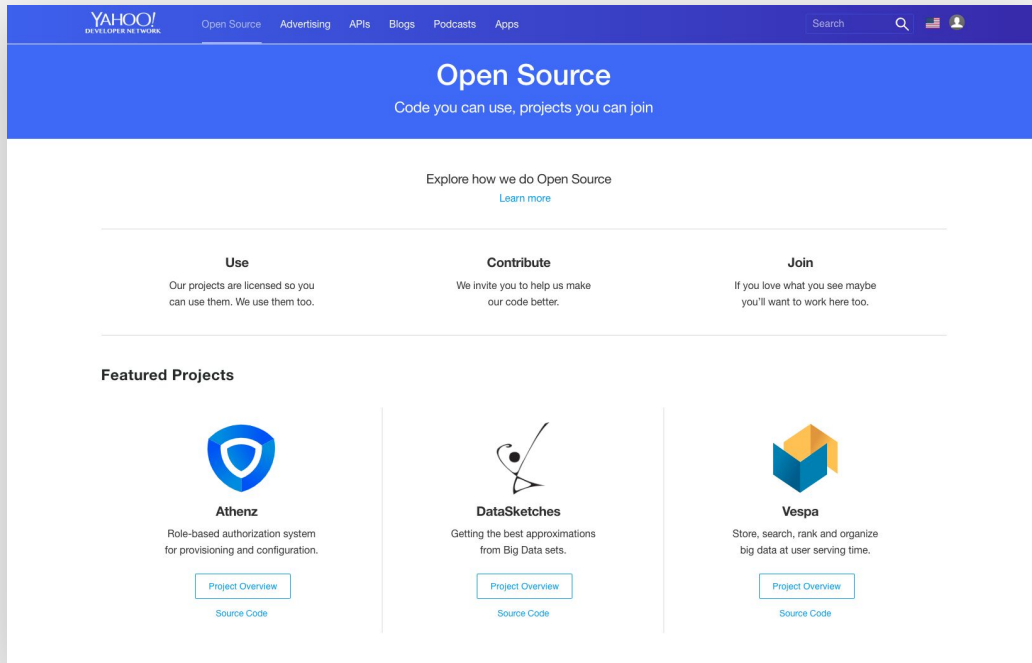
Mobile and TV apps

100%

App License Compliance

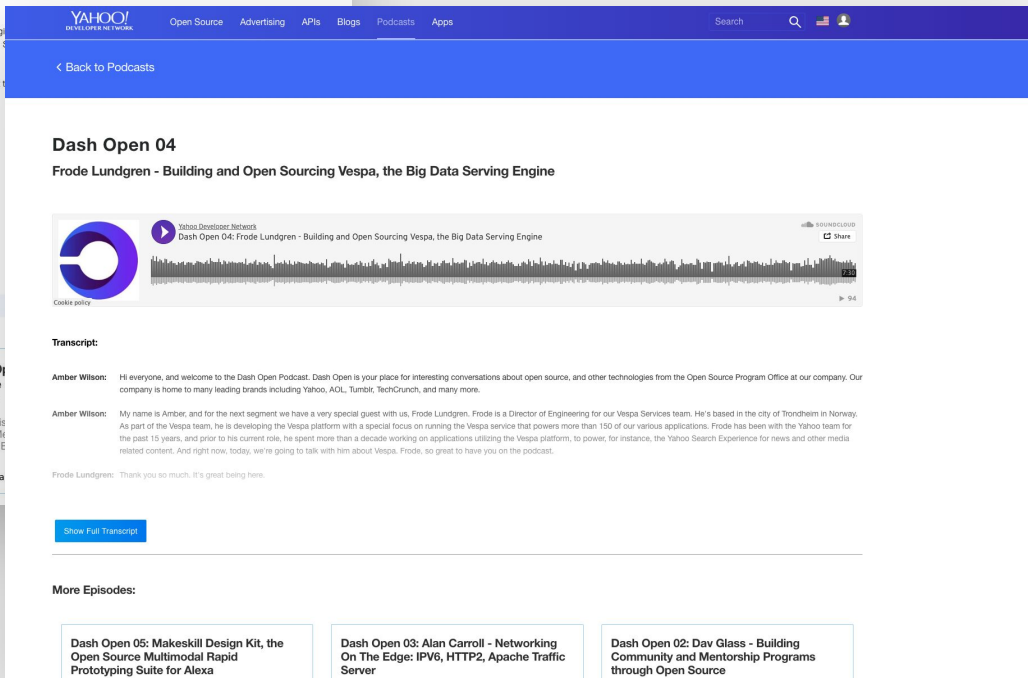
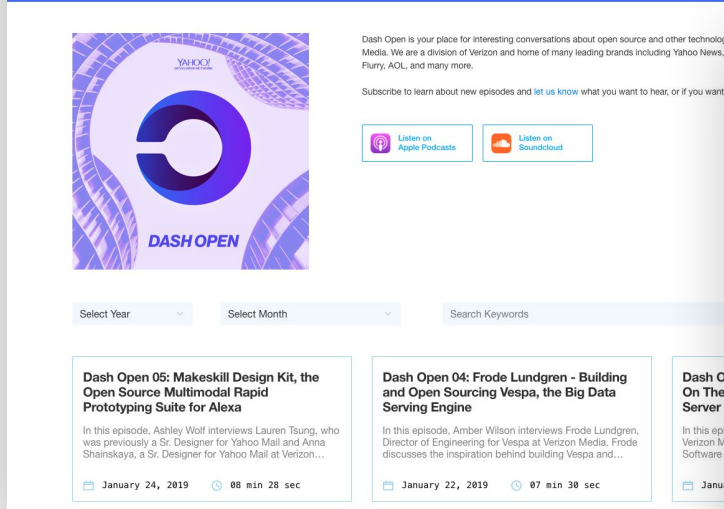
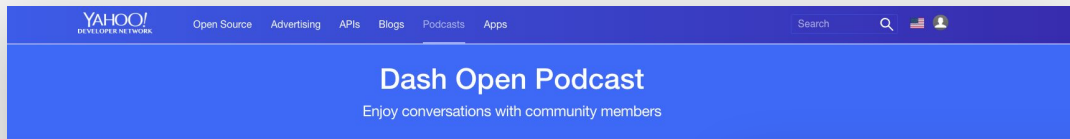
100%

Artifact Compliance



Open Source Page is live





Podcast page is live!



Open Source is Newsworthy

In fact, open source is the technology leadership we can talk about externally. It is what people use to develop an impression of our tech savvy and leadership.

Yahoo Open Sources TensorFlowOnSpark

LINE DISCUSS BOOKMARKS

InfoQ

MAR 20, 2017 • 1 MIN READ

By Dylan Rath

FOLLOW

Yahoo open sourced **TensorFlowOnSpark**, so data scientists and engineers can do distributed training and model serving on GPU architectures directly running **Spark** or **Hadaps**. The library reportedly allows **existing** TensorFlow programs to the new APIs and achieves reported training and model-serving performance improvements.

Yahoo Open Sources Athenz Container Access Control

By: Chris Preimesberger, eWEEK | May 09, 2017



Athenz authorizes the dynamic creation of compute instances and containerized workloads, secures builds and deployment of artifacts to a Docker registry.



Yahoo often doesn't get enough credit for the contributions it has sent to the open source community during the past decade or so.

Besides the original development of Hadoop a dozen years ago, Yahoo has been an active participant in projects such as those listed on the company's **GitHub** page, in various Apache Software Foundation Communities, and in niche communities such as CPAN and others.

Yahoo's latest contribution is **Athenz**, an open-source platform for fine-grained access control that it released

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Yahoo open-sources Continuous Delivery tool Screwdriver

Latest News Published: January 13th, 2017 • Christina Cardozo

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Yahoo is releasing the tool that helped the company perform Continuous Delivery at scale into the open-source community. The company announced Screwdriver.cd, an adaption of its Continuous Delivery build system for dynamic infrastructure.

"Screwdriver handles over 25,000 builds per day and 12,000 daily Git commits as a single shared entry point," wrote James Gil director of Open Source at Yahoo, in a **blog post**. "It supports multiple languages and runs on any virtual machine and container-based builds and deployment."

THE LINUX FOUNDATION



Gil Yehuda, Senior Director of Open Source at Oath (which owns the Yahoo and AOL brands), describes the company's open source goals.

For seven years and counting, Gil Yehuda, Senior Director of Open Source at Oath Inc. (which owns the Yahoo and AOL brands), has led the open source program at Yahoo. Now with an expanded scope, he is gearing up to grow his team and improve the program. The company's formal open source program office serves as a hub to connect all open source activities across the company, he says, but it didn't start out that way.

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Oath's distributed network telemetry collector 'Panoptes' is now Open source!

by Melissa Drouin • October 4, 2016 7:20 am • 814 • 0

siliconANGLE [the voice of enterprise and emerging tech]

CLOUD AI IOT BLOCKCHAIN SECURITY POLICY BIG DATA INFRA APPS EMERGING TECH ...

Yahoo open-sources Vespa, its most important software release since Hadoop

BY MIKE WHEATLEY

MARKETS BUSINESS INVESTING TECH POLITICS CNBC TV

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Yahoo is giving a critical piece of internal technology to the world -- just like it did with Hadoop

- Yahoo is open-sourcing an internal tool called **Vespa**, which it uses for content recommendations, ad serving, and executing certain searches.
- **Vespa** is arguably Yahoo's biggest open-source software release since Hadoop in 2009, which formed the basis for two now-public companies, Hortonworks and Cloudera.
- Companies like Amazon, Facebook, and Google could find it useful.

Jordan Novet | @jordannovet
Published 12:02 PM ET Tue, 26 Sept 2017 | Updated 3:44 PM ET Tue, 26 Sept 2017

cnbc

InformationWeek

Open Source at 20: What's Next?

As the open source movement reaches the two-decade milestone, thoughts turn to the movement's achievements and future goals.

Gil Yehuda

Employees who are encouraged to contribute to open source software projects as part of their everyday work can build a strong personal brand within the developer community. "From individual contributions to maintaining popular projects, if a developer is given adequate time and space, he or she can make a meaningful impact and get the attention of peers," Falls explained. "Any positive reputation from said impact could open other professional doors, like public speaking opportunities, job offers and the option to offer services as an independent consultant."

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Oath makes first Yahoo open source contribution with Bullet

Latest News Published: June 15th, 2017 • Christina Cardozo

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Oath is releasing its first solution into open source, thanks to the recently announced acquisition of Yahoo by Verizon. The company announced the contribution of **Bullet**, Yahoo's real-time query engine.

Oath is a subsidiary of Verizon, and home to more than 50 media and technology brands. Just this week, Verizon announced it has officially completed its acquisition of Yahoo, which will live under the Oath brand.

"We're building the future of brands using powerful technology, trusted content and differentiated data. We have dominating consumer brands in news, sports, finance, tech, and entertainment and lifestyle coupled with our market-leading advertising technology platforms. Now that the deal is closed, we are excited to set our focus on being the best company for consumer media, and the best partner to our advertising, content and publisher partners," Tim Armstrong, CEO of Oath.

Seven strategic projects



Athenz

Java

Athenz is a role-based authorization (RBAC) system for provisioning and configuration (centralized authorizati...

[Overview](#) | [Source Code](#)

👤 88 ☆ 254



Bullet-Core

Java

Bullet is a streaming query engine that can be plugged into any singular data stream using a Stream Processing...

[Overview](#) | [Source Code](#)

👤 8 ☆ 11



Moloch

JavaScript

Moloch is an open source, large scale, full packet capturing, indexing, and database system.

[Overview](#) | [Source Code](#)

👤 598 ☆ 2966



Vespa

Java

Vespa is an engine for low-latency computation over large data sets.

[Overview](#) | [Source Code](#)

👤 319 ☆ 2653



Panoptes

Python

A Global Scale Network Telemetry Ecosystem

[Source Code](#)

👤 6 ☆ 38



DataSketches

Getting the best approximations from Big Data sets.

[Project Overview](#)

[Source Code](#)

Happy Ending!

Blending companies is not easy.

Pointing to really bad mistakes helps demonstrate you need to fix things ASAP.

It takes a team.

Value must be greater than the cost of interaction.

Eventually the shared fate leads to shared faith and collaboration on outcomes.

Takeaway messages:

1. **Your company needs an Open Source Program**
2. **Supporting the engineering culture helps**
3. **Get alignment on the outcome, the OSPO will follow**

Thank You

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