

Help Recruit more Developers to LFN Projects!

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 **THE LINUX** FOUNDATION

Agenda

- › Challenge: Recruiting Developers
- › Review: What have projects tried
- › Brainstorming: What should LFN do?

The Challenge for LFN Projects

- › We need more Developers and Testers !
- › We have more ideas than coders
- › We have so many non-functional requirements & security vulnerabilities to address to make our project consumable
- › Our documentation isn't up-to-date

Review: Project Experiences



Lessons learned from the Hacktober Fest

What is Hacktoberfest?

Hacktoberfest is a month-long celebration of open source software run by DigitalOcean and DEV.

Hacktoberfest is open to everyone in our global community.

To participate, four pull requests must be submitted to public GitHub repositories.

You can sign up anytime between October 1 and October 31.

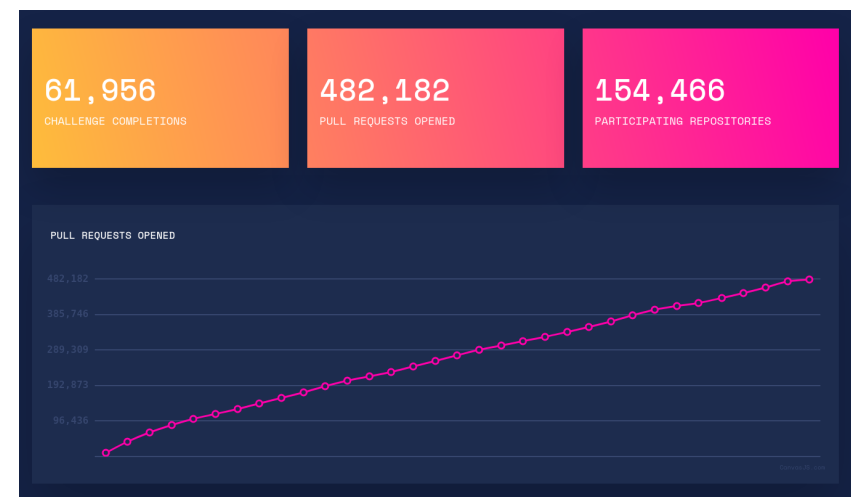
See <https://hacktoberfest.digitalocean.com/>

Through github/gitlab tags, Open Source communities indicate “easy” tasks to be realized by newcomers

If you submit 4 Pull Requests, you got a T-Shirt (and the satisfaction to have contributed to an Open Source project)

Key lessons learned:

- Fun
- Very inclusive
- Force projects to define small achievable tasks easily promoted through git tags
- Allow fast integration of new developers into projects via the PR mechanism
- Simple because leveraging on basic tooling (github, gitlab) , gerrit may somehow introduce some complexity
- Simple because no complex legal aspects/CLA/...



Lessons learned from the ROS community

The community recently managed to onboard new developers for the Navigation2 project. New developers got a chance to improve their skills while gaining public exposure, and the community benefited from their contribution in several areas that were lacking attention.

Key lessons learned:

- › Successful onboarding requires commitment from senior community members who serve as mentors
- › Encouraging all experience levels and part time – some tasks are suitable for juniors and/or part time
- › Consistent calls for participation – There is a funnel from initial response to actual contribution. There is natural churn. You need to keep feeding the program with new members

Lessons learned from OpenDaylight community

Over the years, OpenDaylight has learned a few lessons about successful onboarding:

- › Almost all successful onboarding is of developers from the companies who have dedicated resources to work upstream.
- › Hence recruitment for open source projects really needs to be targeted towards the companies.
 - › Typically companies to contribute toward the use cases or value-adds. Which is good – open source projects need successful use cases.
 - › Ideally companies using the open source project should also be interested in making sure there is a pooling of resources to develop core components so they can concentrate on value adds. However it is hard to get companies to actually do so as it makes less of a splash. Projects need to push the companies contributing towards the use-cases only to contribute to core components. This is not easy however as core components are hard and need very strong persistent developers who can understand undocumented code.
 - › Unfortunately, there are also companies who consume the open source project, but do not contribute due to lack of resources. Somehow recruitment efforts need to be targeted here.
- › Academics, interested geeks are other contributors who have successfully onboarded, though at a far lesser rate.
- › Interns can contribute toward low hanging fruit. Some interns who have exceeded expectations have been hired in the past by member companies.

Lessons learned from OPNFV (VSPERF) Project

The Project considered the possibility of recruiting Students outside the usual calls for INTERNS. Why?

- › Lots of Applicants for well-advertised Intern opportunities
- › Interviewing and choosing ONE Intern from many qualified applicants has been challenging!
- › Many completely satisfactory student developers were lost, particularly sad when the successful applicant fails for unforeseen reasons!

Sridhar Rao, VSPERF PTL, realized that many students would complete a project for a **certificate/Letter of Recognition alone!!**

OPNFV TSC approved their **STUDENT VOLUNTEER Program in September, 2019**. The First Letter/Certificate of Completion went to Parth Yadav in early 2020. Parth's Advisor also joined the project/meetings.

Following this success, Sridhar managed to onboard new developers for the VSPERF project. Another Student/Advisor pair has joined. Parth and his Advisor also stayed-on for a new task.

VSPERF has two LFN Internships in-progress. Among the unsuccessful applicants, 3 Students were willing to begin other tasks as Student Volunteers. A previous Intern has stayed on to help and maintain his work on a specialized Test VM.

Key lessons learned:

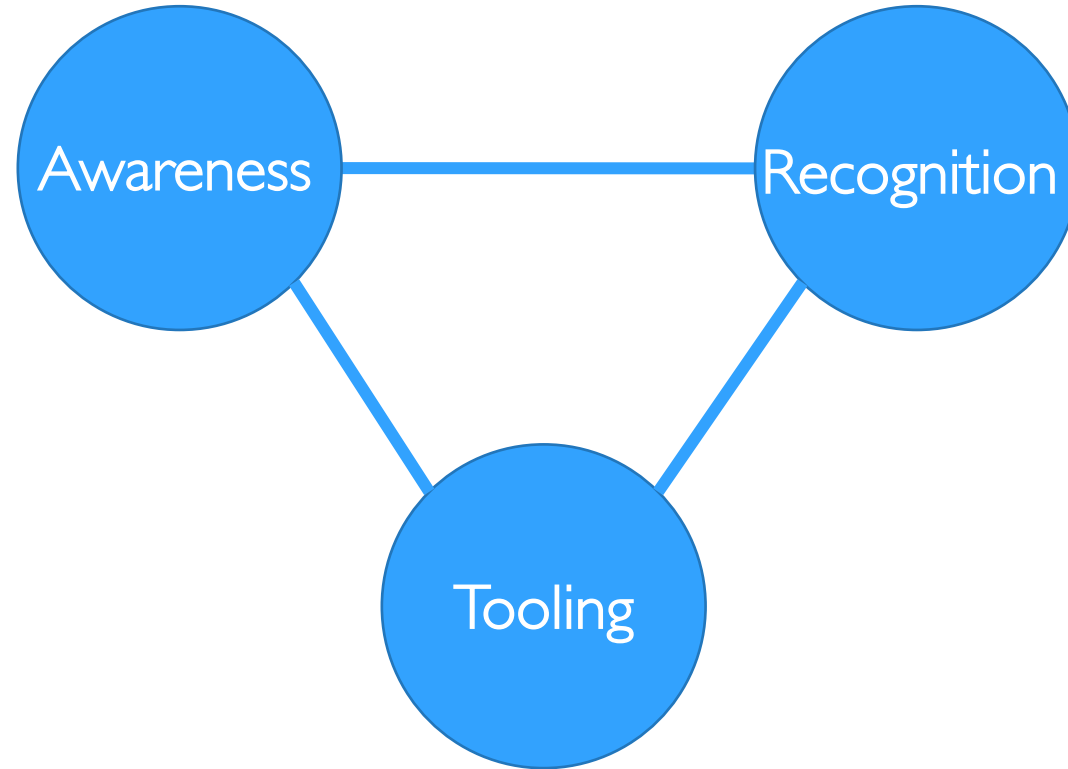
- › Successful recruiting for Student Volunteers involves some travelling in the academic circles, and
- › Having a plan and Tasks for those who don't "win" the available Internship(s) is a good thing.
- › Offer Tasks & Projects that have some academic interest (K8s), but make it clear that the project may need help in areas that are not high visibility (maintenance/keep everything running).

ONAP Experiences

- › Challenge: Need additional companies focusing on non functional requirements ([Security](#), [Integration](#), [OOM](#)) and on improving User Experience.
- › Attempted Approaches
 - › Increase SW Quality: Min. Test Coverage per project; Pair-wise testing part of our Release Plan; Integration Lead per Usecase/Functional reqs; Dedicated Integration Team; OOM Gating and setup external labs resources
 - › Use of Interns
 - › Implementing a "tax" for the Guilin release that any companies wanting to add new use case or new feature; they must also provide resources to address a couple of ONAP's non-functional requirements in addition to the feature development.
 - › Demo Contest & Community Awards per release
 - › Documentation SOW

Brainstorm: What Should LFN Do?

How to Proceed



How to Drive Awareness of Developer Needs

How to Reward/Recognize Developers?

OPEN BADGES

Data & Information **Inside**

Alignment	Expiration Date
Badge Criteria	Issued Date
Badge Description	Issuer
Badge Name	JSON-LD
Digital Signature	Recipient
Evidence	Verification



<https://training.linuxfoundation.org/badges-2/>

Can Tooling Help?

Next Steps

- › Should this be done at an LFN level?
- › Volunteers to flesh out these ideas
- › How to implement – effort needed by each project?