



OPEN SOURCE SUMMIT

China 2019

Alibaba Digital Driven Open Source Community Exploration

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Alibaba Open Source Overview

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- Overview on GitHub
 - 20+ orgs
 - 1000+ repos
 - 9000+ contributors (exclude fork repos)
- CNCF
 - Xiang Li – TOC member
 - Dragonfly – Sandbox project
- ASF
 - Apache RocketMQ – ASF IPMC member, Jia Feng(@vongosling)
 - Apache Dubbo – ASF member, Huxing Zhang(@ralf0131)
 - Apache Weex – incubator



Contents

- Open source for companies
- Analysis based on GitHub
- Digital driven open source management
- Digital driven open source operation
- Digital driven open source collaboration

- Analysis
 - Open source projects & developers activity
 - Open source project category
 - Tech trend based on open source developers' behavior
- Open source project management
 - Projects management under thousands scale
 - Projects legal & security compliance
- Open source project operation
 - Detect active developers in community
 - Motivate developers in community
 - Execution of community mechanisms

- Quantifiable measure standard for analysis

Developer activity - A_D	Project activity - A_P	Project relativity - R_p
$a * comment + b * openIssue + c * reviewComment + d * openPR + e * mergePR$	$\sum_i {A_{Di}}^\alpha$	$\sum_{i,j} \frac{A_{pi} * A_{pj}}{A_{pi} + A_{pj}}$
$a = 1, b = 2, c = 3, d = 4, e = 5$	$\alpha = 0.5$	-

Analysis based on GitHub

- Most active developers

#	login	A_D	#	login	A_D
1	greenkeeper[bot]	986427	11	k8s-ci-robot	283959
2	dependabot[bot]	927467	12	coveralls	274738
3	renovate[bot]	925405	13	snyk-bot	248661
4	pull[bot]	653072	14	everypoliticianbot	230872
5	houndci-bot	613320	15	codecov[bot]	227370
6	pyup-bot	408397	16	keksobot	209412
7	github-learning-lab[bot]	364951	17	codecov-io	175849
8	codacy-bot	364298	18	ssi-qa	123410
9	direwolf-github	360462	19	Istjsuperman	120034
10	koorellasuresh	293908	20	autotester-one	119614

Data source: GitHub Event Log

Time range: 2018-01-01 ~ 2019-01-01

Data range: All GitHub projects, ~298W projects

Analysis based on GitHub

- Most active projects

#	repo	A_P	#	repo	A_P
1	Microsoft/vscode	30839	11	home-assistant/home-assistant	11688
2	MicrosoftDocs/azure-docs	21823	12	angular/angular	10901
3	jlippold/tweakCompatible	18493	13	firstcontributions/first-contributions	10644
4	kubernetes/kubernetes	18449	14	githubschool/open-enrollment-classes-introduction-to-github	10635
5	freeCodeCamp/freeCodeCamp	16935	15	angular/angular-cli	10391
6	tensorflow/tensorflow	16543	16	NixOS/nixpkgs	10109
7	ansible/ansible	16377	17	magento/magento2	9341
8	facebook/react-native	14622	18	pytorch/pytorch	9117
9	flutter/flutter	13860	19	rust-lang/rust	8788
10	DefinitelyTyped/DefinitelyTyped	13521	20	golang/go	8647

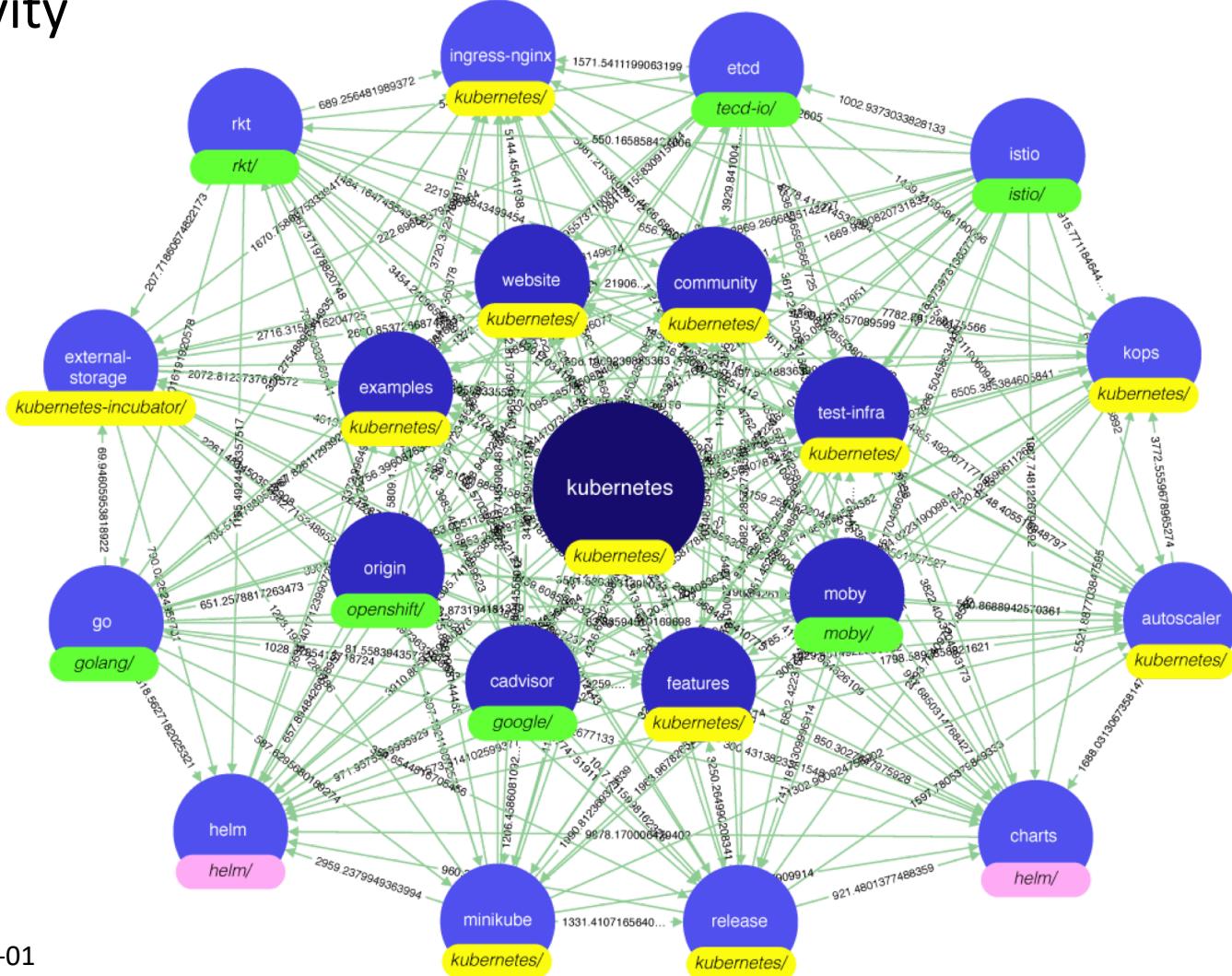
Data source: GitHub Event Log

Time range: 2018-01-01 ~ 2019-01-01

Data range: All GitHub projects, ~298W projects

Analysis based on GitHub

- Projects' relativity



Data source: GitHub Event Log

Time range: 2018-01-01 ~ 2019-01-01

Data range: All GitHub projects, ~298W projects

Analysis based on GitHub

- Open source project category
 - 2-layer Louvain community detection algorithm
 - Random ~8000 projects which stars > 5000

Category	Percentage	Category	Percentage
Framework	32.79%	Frontend	4.10%
Tool	18.04%	Library	2.98%
AI	12.36%	BigData	2.36%
System	9.31%	Blockchain	2.00%
Database	7.31%	Mobile	1.82%
Cloud	6.07%	Facebook	0.87%

Data source: GitHub Event Log

Time range: 2018-01-01 ~ 2019-01-01

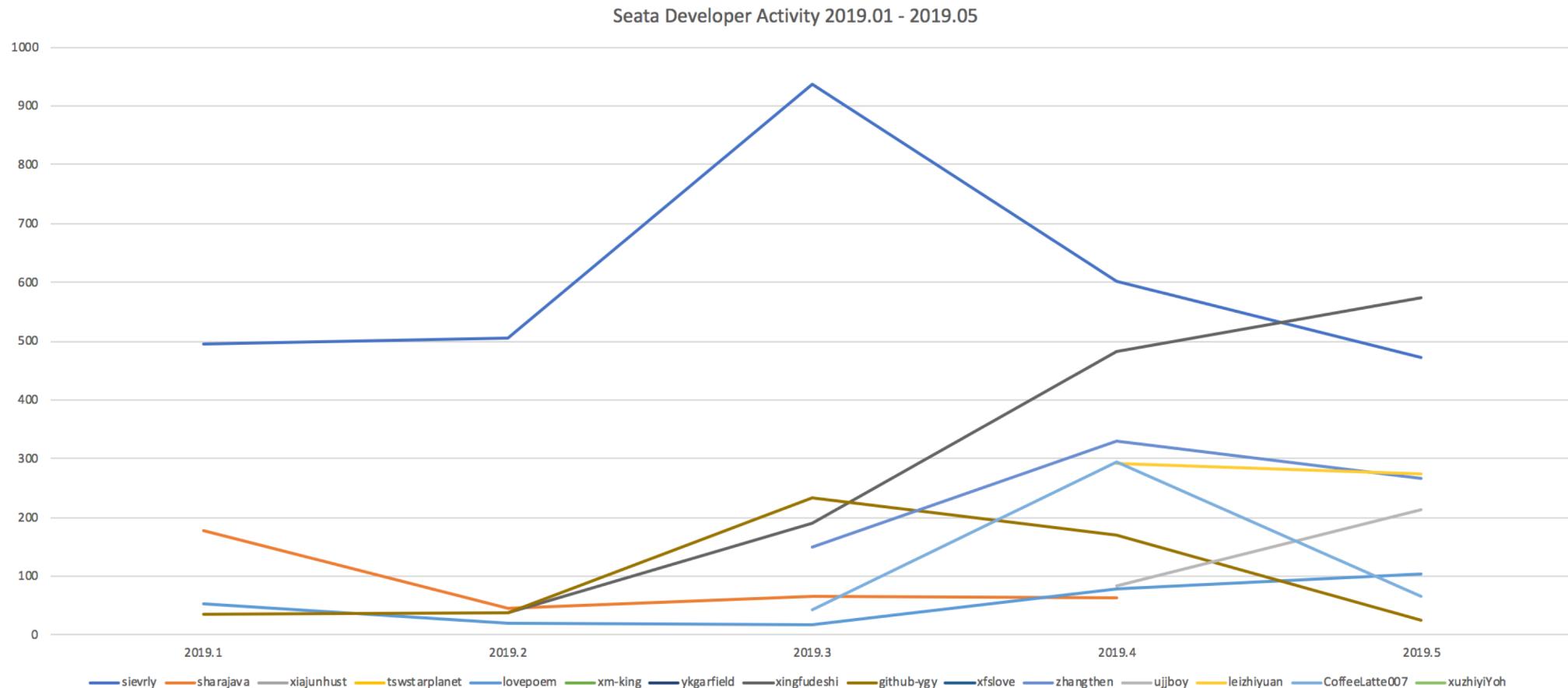
Data range: All GitHub projects, ~298W projects

- Open source project management
 - Projects management under thousands scale
 - Data platform and continuous monitoring
 - Auto process and digital analysis
 - Projects legal & security compliance
 - Tools
 - Process integration

Digital driven open source operation

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- Detect active developers in community





Digital driven open source operation

- Motivate developers in community
 - Involve developers into projects' management work
- Kubernetes' community - 2019.02
 - kubernetes org
 - 990 OWNERS files
 - 424 reviewers / 399 approvers / 523 distinguish
 - 7% developers involved into projects' management work
 - kubernetes/kubernetes
 - 422 OWNERS files
 - 250 reviewers / 162 approvers / 273 distinguish
 - 14% developers involved into project's management work

- Execution of community mechanisms
 - Automate and configurable

The screenshot shows a GitHub pull request interface. At the top, a comment from 'k8s-ci-robot' is displayed, stating: '[APPROVALNOTIFIER] This PR is APPROVED'. Below this, it says: 'This pull-request has been approved by: [bgrant0607](#), [mgdevstack](#), [spiffxp](#)'. It also mentions: 'The full list of commands accepted by this bot can be found [here](#)'. The pull request process is described [here](#). A link to '详细信息' (More details) is also present.

Below the main comment, there is a list of events:

- k8s-ci-robot added the **approved** label 7 days ago
- k8s-ci-robot merged commit **62eae8d** into **kubernetes:master** 7 hours ago

A red box highlights the merge event. Below the merge event, a summary of build status is shown: **18 checks passed**.

✓	cla/linuxfoundation mgdevstack authorized	Details
✓	pull-kubernetes-bazel-build Job succeeded.	Details
✓	pull-kubernetes-bazel-test Job succeeded.	Details
✓	pull-kubernetes-conformance-image-test Job succeeded.	Details
✓	pull-kubernetes-cross Skipped.	

- Deeply integrated with GitHub
- Data collection
- Data analysis
- Comment & label driven community mechanism execution

Collabobot



Collabobot

Collabobot is short for collaborate robot which is for GitHub open source project collaboration. This project is a [GitHub App](#) that you can easily install for your repos.

Collabobot is built on [Probot](#) which is a great framework to build GitHub App and collabobot has its own advantages which will be introduced in this doc.



nacos-bot commented on 15 Feb

Collaborator



...

Weekly Report of Nacos

This is a weekly report of Nacos. It summarizes what have changed in the project during the passed week, including pr merged, new contributors, and more things in the future.
It is all done by @nacos-bot which is a collaborate robot.

Repo Overview

Basic data

Basic data shows how the watch, star, fork and contributors count changed in the passed week.

Watch	Star	Fork	Contributors
469	4258 (↑112)	846 (↑20)	35 (↑1)

Issues & PRs

Issues & PRs show the new/closed issues/pull requests count in the passed week.

New Issues	Closed Issues	New PR	Merged PR
20	6	6	4

PR Overview

Thanks to contributions from community, Nacos team merged 4 pull requests in the repository last



nacos-bot commented on 15 Feb

Collaborator



...

Hi @huangyunbin, we detect non-English characters in the issue. This comment is an auto translation from @nacos-bot to help other users to understand this issue.

We encourage you to describe your issue in English which is more friendly to other users.

The ip of the heartbeat renewal should be compensated if it does not exist on the nacos server.

The ip of the heartbeat renewal should be compensated if it does not exist on the nacos server.

addIp4Dom has not notified other nacos server, this time the leader hangs. Other nacos servers do not have this ip. In this case, the heartbeat is run freely and should be compensated for registration.

```
1 nacos-all [~/Documents/open/nacos] - .../naming/src/main/java/com/alibaba/nacos/naming/healthcheck/ClientBeatProcessor.java [nacos-naming]
2
3 public void process() {
```

the case of public namespace not same of console

Open sofior opened this issue 14 days ago · 0 comments



sofior commented 14 days ago

I'm an OCD



nacos-bot added the area/Nacos console label 14 days ago

Thanks

