

**CLOUD NATIVE
COMPUTING
FOUNDATION**

CNCF TOC Meeting

October 19th, 2016

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Meeting Logistics

Time: October 19 8AM (Pacific)

<http://uberconference.com/cloudnative>

Conference Number: +1-415-579-0198 No Pin Needed

TOC - Members Present Today

<u>Company</u>	<u>Name</u>	<u>Email</u>
Independent	Camille Fournier	skamille@gmail.com
Cisco	Ken Owens	kenowens@cisco.com
CoreOS	Jonathan Boulle	jonathan.boulle@coreos.com
Docker	Solomon Hykes	solomon.hykes@docker.com
Google	Elissa Murphy	elissam@godaddy.com
Google	Brian Grant	briangrant@google.com
Joyent	Bryan Cantrill	bryan@joyent.com
Mesosphere	Benjamin Hindman	benh@mesosphere.io
Weaveworks	Alexis Richardson	alexis@weave.works

*Note: TOC meetings shall require a **quorum of two-thirds of the TOC total members to take a vote or make any decision**. If a TOC meeting fails to meet the quorum requirement, discussions may proceed, however there shall be no voting or decisions.*

Agenda

- Updates, News & Events
 - OpenTracing Update
 - November Conference Update + CNCF Community Awards
 - Fluentd Update
 - Ken Owens: RA vote discussion
- Projects: Pipeline, Incubation
 - Presentation: gRPC
 - CoC
 - Graduation Criteria Discussion & Timeline
- AOB
 - Next Time

Updates, News & Events

- OpenTracing approved as project!
 - <https://github.com/cncf/toc/pull/15>
 - Check out the PR [release!](#)

- CloudNativeCon/KubeCon/PrometheusDay
 - <http://events.linuxfoundation.org/events/cloudnativecon>
 - **Will sell out this week... REGISTER NOW!**

FYI: CNCF Community Awards

- **Honoring those who have made the greatest impact over the last year**
 - As nominated by the Community - Nominations close October 21!
 - CNCF Top Ambassador
 - A champion for the cloud native space, this individual helps spread awareness of the CNCF (and its incubated projects). The CNCF Ambassador leverages multiple platforms, both online as well as speaking engagements, driving interest and excitement around the project.
 - CNCF Top Committer
 - This will recognize excellence in technical contributions to CNCF and its incubated projects. The CNCF Top Committer has made key commits to the project and, more importantly, contributes commits that benefit the project neutrally, as a whole (versus commits that primarily benefit the committer's employer/sponsor).
 - Nominate today at <https://goo.gl/forms/VkftfsWcNTPyDCI83>
 - More info at <https://cncf.io/news/blogs/2016/10/announcing-%E2%80%99Cncf-community-awards%E2%80%9D-%E2%80%93-winners-be-recognized-cloudnativecon>

Fluentd Update

- Google and Treasure Data are investigating performance and resource-consumption problems encountered by Google and Kubernetes when using fluentd. See for example issues listed below the fold: [kubernetes/kubernetes/issues/32762](https://github.com/kubernetes/kubernetes/issues/32762) [GoogleCloudPlatform/fluent-plugin-google-cloud/issues/87](https://github.com/GoogleCloudPlatform/fluent-plugin-google-cloud/issues/87)
- Brian & Alexis have asked Treasure Data to clarify the scope of the donation -- which repositories in the fluent github org would be included. Our proposal is that all repos in the org be donated — TODO: Verify this list & discuss with TD.
- Included in this list: TD have additionally offered fluent-bit, which is still fairly immature but may be better suited for low-resource and embedded use cases in the future.
- In our discussions with the team they have demonstrated a solid understanding of the problem space and a professional attitude to our enquiries. Their answers to our questions have exhibited the characteristics we value in an open source project of this sort.
- Next step: we would like TD to submit a written proposal. — — TODO: Brian to SPONSOR.

Reference Architecture (KenO)

End User Reference Architecture **CALL FOR VOTE**

- Provide Clear Definition around Cloud Native Definition of:
 - Containerized
 - Distributed Orchestration and Management
 - Micro-services Architecture
- Serve as End User Community and CNCF marketing architecture

[CNCf End user reference architecture](#)

@CRA will call a vote

gRPC

<http://grpc.io>

Open source on Github for C, C++, Java, Node.js,
Python, Ruby, Go, C#, PHP, Objective-C

What is it?

An multi-platform high performance RPC framework for cloud native services.

- **Inside and Outside Google**
- **Polyglot:** C (C++, C#, Node, Ruby, Python, Obj-C), Java & Go implementations
- **Multi-platform:** Linux, Windows, Mac OSX
- **IDL Based:** service and message contracts defined
- **Standards based:** HTTP/2 based, proxyable, routable
- **First class mobile support:** iOS, Android
- **Efficient and performant:** Binary on wire
- **Pluggable:** Auth, Tracing, Load Balancing

- grpc.io, [github.com/grpc](https://github.com/grpc/grpc), github.com/grpc/grpc-java, [github.com/grpc-go](https://github.com/grpc/grpc-go)

Why do I need it?

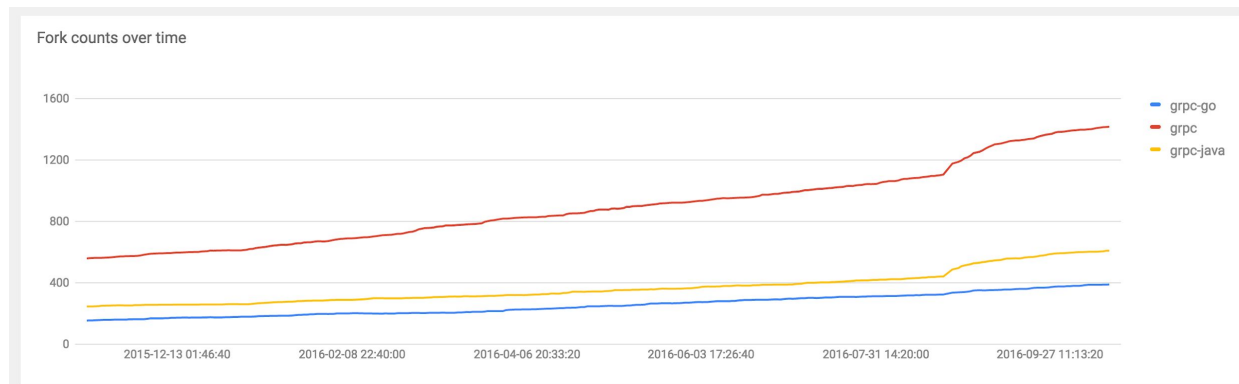
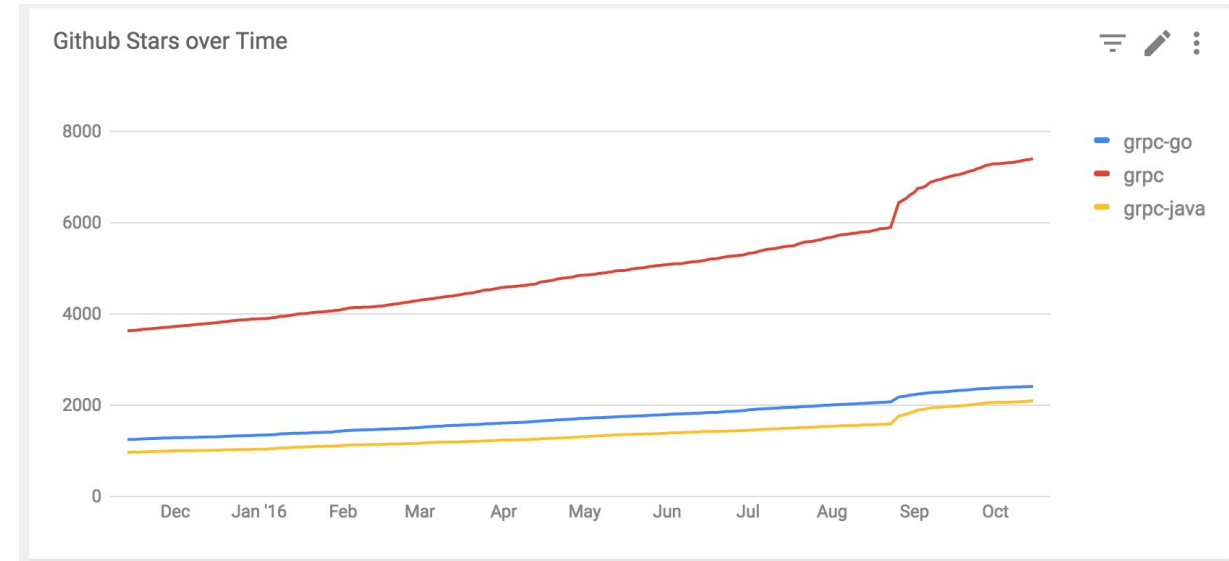
Vision: Make connecting and operating distributed systems easy and efficient.

- Service-to-service contract definition and evolution
- Service-to-service communication increasingly important (microservices!)
- Libraries in all languages - have a common way to handle timeouts, retries, cancellations, context propagation, load balancing, tracing and yet native to every developer in their language. Don't make service owners think of all of this !

gRPC by the numbers

- ~1.5 years old.
- > 12K [Github](#) stars (combined)
- >2500 forks (combined)
- > 100 contributors
- Already 1.0 and used by many developers and companies.
- Open Perf dashboard

Public users include: Square, Netflix, Lyft, CoreOS, Cisco, Juniper, Arista, CockroachDB, Carbon3d, YikYak, Brightcove & many apps and services at Google



Ecosystem & foci

Strong focus on working w/existing stacks.

Pluggable arch, many integrations:

- **Service discovery:** Consul, ZooKeeper, etcd, Kubernetes API
- **Auth & Security:** TLS [Mutual], Plugin auth mechanism (e.g. OAuth)
- **Tracing & Metrics:** Prometheus, Zipkin, OpenTracing
- **Proxies:** nghttp2, linkerd, envoy

The screenshot shows the GitHub repository page for the gRPC Ecosystem. The page header includes the gRPC logo, the repository name 'gRPC Ecosystem', and a description: 'gRPC Ecosystem that complements gRPC'. It also provides the website URL 'http://www.grpc.io' and the email 'grpc-io@googlegroups.com'. Below the header, there are navigation tabs for 'Repositories', 'People 14', 'Teams 8', and 'Settings'. A search bar with the placeholder 'Find a repository...' and a 'New repository' button are also visible. The main content area lists several repositories with their names, languages, star counts, and update times. The repositories listed are: 'grpc-opentracing' (Java, 21 stars, updated 3 minutes ago), 'polyglot' (Java, 72 stars, updated 19 hours ago), 'grpc-gateway' (Go, 818 stars, updated 2 days ago), and 'go-grpc-prometheus' (Go, 77 stars, updated 6 days ago). Each repository entry includes a brief description and a commit history bar.

What we're looking for

- Industry friends and partners: RPC framework which industry can adopt and build on top of.
- Marketing: Very wide scope more presence/talks in conferences will help us.
- Technical collaborations: Needs to plug with many existing systems for technology to be adopted. CNCF can help foster some collaborations.



Sam Pullara
@sampullara



Following

can everyone just switch to this
cloudplatform.googleblog.com/2016/08/gRPC-a
... so we can have a de facto standard for rpc
and can build on top of it?



gRPC: a true internet-scale RPC framework is now 1.0 and ...

Posted by Varun Talwar, Product Manager Building highly scalable, loosely coupled systems has always been tough. With the proliferation o...

cloudplatform.googleblog.com

gRPC Q&A

<http://www.grpc.io/>

Varun Talwar <varuntalwar@google.com>

CNCF Governance: CoC

- Discussion thread Code of Conduct
<https://github.com/cncf/foundation/issues/2>
- Kubernetes Code of Conduct atm: <https://github.com/kubernetes/kubernetes/blob/master/code-of-conduct.md>
- LF-Events Conference code of conduct: <http://events.linuxfoundation.org/events/kubecon/attend/code-of-conduct>
- Standards:
<https://xkcd.com/927/>

Proposal: “CNCF CoC”

Kubernetes-CoC for digital interactions (github, mailing lists, video conferencing etc.)

Kubernetes-CoC + LF-events-CoC for IRL experiences

CNCF Seed Projects & Incubation Criteria

- RFC: Discuss [Graduation Criteria](#)

Next Time

- Testing & Automation
- What other projects should we talk too?
- ?

Cadence

- Last [meeting slides](#) on 10/5/2016
- Meeting Cadence Reminder
 - First and third Wednesday of every month
 - Calls without TOC quorum will still be used to review issues
- Next Meeting: 11/2/2016



Thank You

Projects: Pipeline

- [NATS](#) (pubsub)
 - TOC sponsor: Alexis Richardson (working on project proposal and legal issues moving to ALv2)
- [Fluentd](#) (logging)
 - **needs discussion and sponsor**
- [Heron](#) (real time stream processing)
 - **Discussion.** TOC Sponsor: Ben Hindman (working on project [proposal](#))
- [Minio](#) (storage / **more maturity in terms of adoption needed; will be discussed later**)
- [OpenZipkin](#) (need to reach out and needs more discussion)
- [CoreDNS](#) (proposal is out for vote, see [mailing list](#); needs discussion on seed projects to finish)
- [CockroachDB](#) (distributed SQL DB)
 - scheduled TOC community presentation and **needs sponsor**

Other topics to discuss in the future

1. Example Apps & Patterns
2. Website “how we help” etc.
3. “Below the waterline”: Define Incubation, Development Model & other community management issues; Advice; Advocacy; ..

CNCF Reference Architecture

- Any comments? Vote?
- See [slides](#)

Application Definition / Development

Cloud Native Services

Cloud Native Runtime

Cloud Native OS / Provisioning

Infrastructure (Bare Metal/Cloud)