

CNCF and Fujitsu

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CLOUD NATIVE COMPUTING FOUNDATION

<https://cncf.io>

<https://github.com/cncf/>

The Cloud Native Computing Foundation (CNCF) will harmonize emerging technologies and foster innovation in container packaged, dynamically scheduled, and microservices based application development and operations. The mission of the CNCF is to create and drive the adoption of a new computing paradigm that is optimized for modern distributed systems environments capable of scaling to tens of thousands of self healing multi-tenant nodes.

Did you attend Chris's keynote at Thursday?

Governing Board

- Craig McCluckie (Google) [**chair of governing board**]
- Alexis Richardson (Weaveworks) [**TOC chair representative**]
- Val Bercovici (NetApp)
- Jonathan Donaldson (Intel)
- Brian Goff (Docker)
- Scott Hammond (Joyent)
- Ben Hindman (Mesosphere)
- Kenji Kaneshige (Fujitsu)
- Peixin Hou (Huawei)
- Mathew Lodge (Weaveworks)
- Jason Mendenhall (Supernap / Switch)
- Todd Moore (IBM)
- Kenneth Owens (Cisco)
- Alex Polvi (CoreOS)
- Mark Thiele (Apcera)
- Chris Wright (Red Hat)
- Patrick Reilly (Apprenda)

Technical Oversight Committee

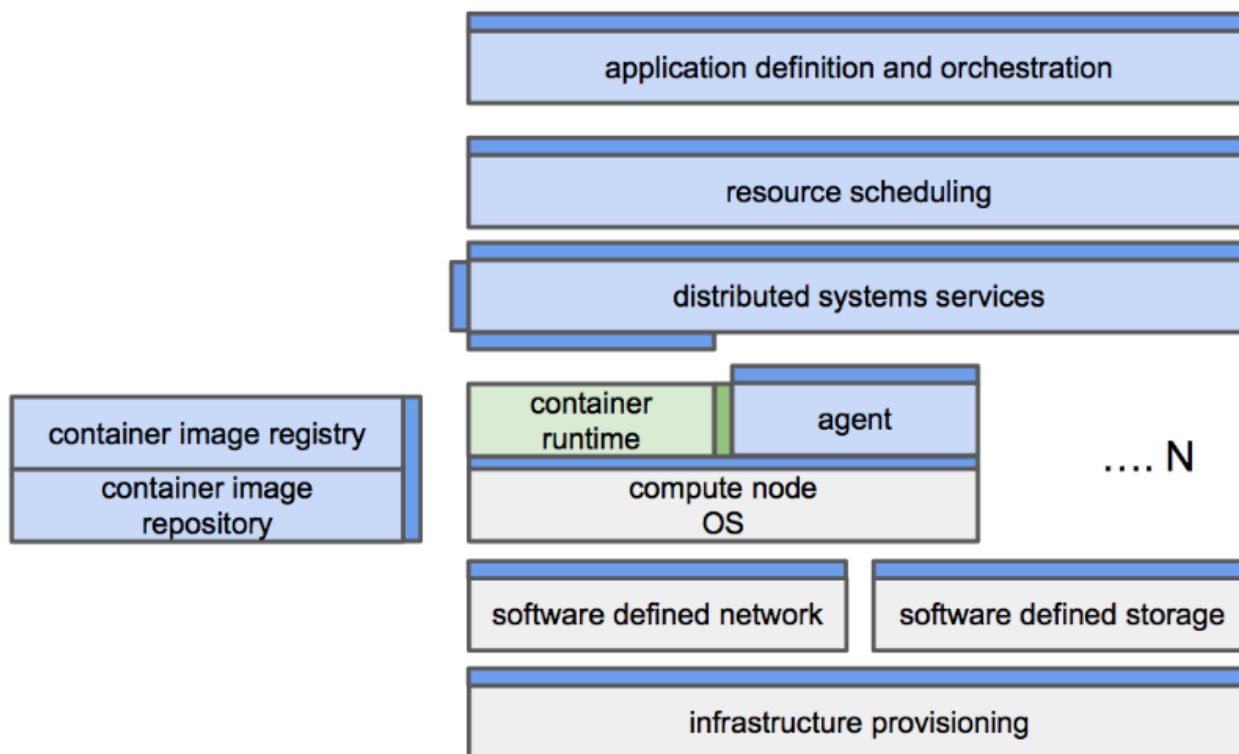
- Alexis Richardson (Weaveworks) [TOC chair]
- Jonathan Boulle (CoreOS)
- Bryan Cantrill (Joyent)
- Camille Fournier (Independent)
- Brian Grant (Google)
- Benjamin Hindman (Mesosphere)
- Solomon Hykes (Docker)
- Elissa Murphy (GoDaddy)
- Ken Owens (Cisco)

TOC activities here

<https://github.com/cncf/toc>

Technologies focusing on

Initial CNCF scope and vision



<https://cncf.io/about/charter>

Core Attributes

- Container packaged and distributed.
- Dynamically scheduled.
- Micro-services oriented.

Establish

- Standard Interface
- Standard Architecture
- Reference Implementation and more

Hosted Projects (1/Jul/2016)

- Kubernetes
- Prometheus

What happens now ?

Seasonal Business ➡ On demand use/development

Internet Campaign ➡ Server down

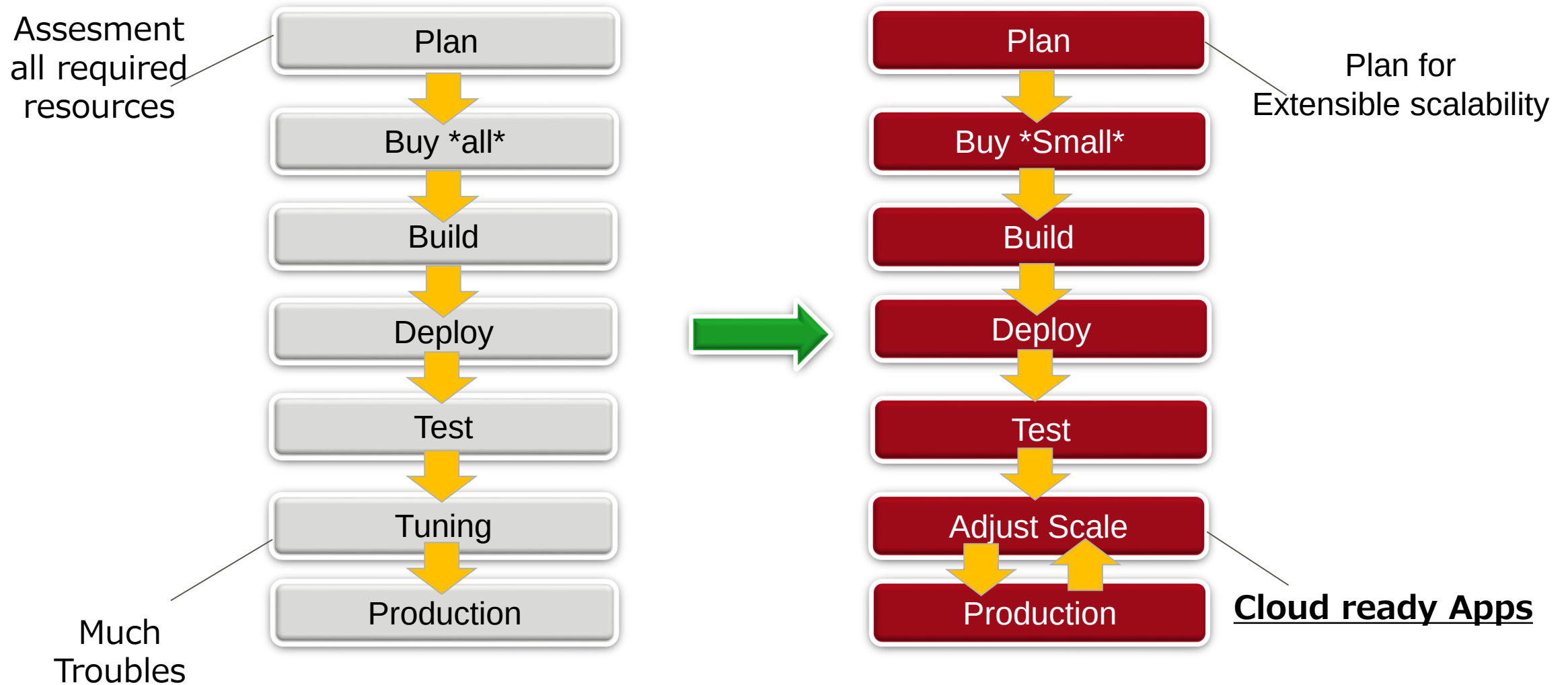
Cloud Center ➡ Mixture of tons of jobs

Race on the app/service ➡ Productivity wins



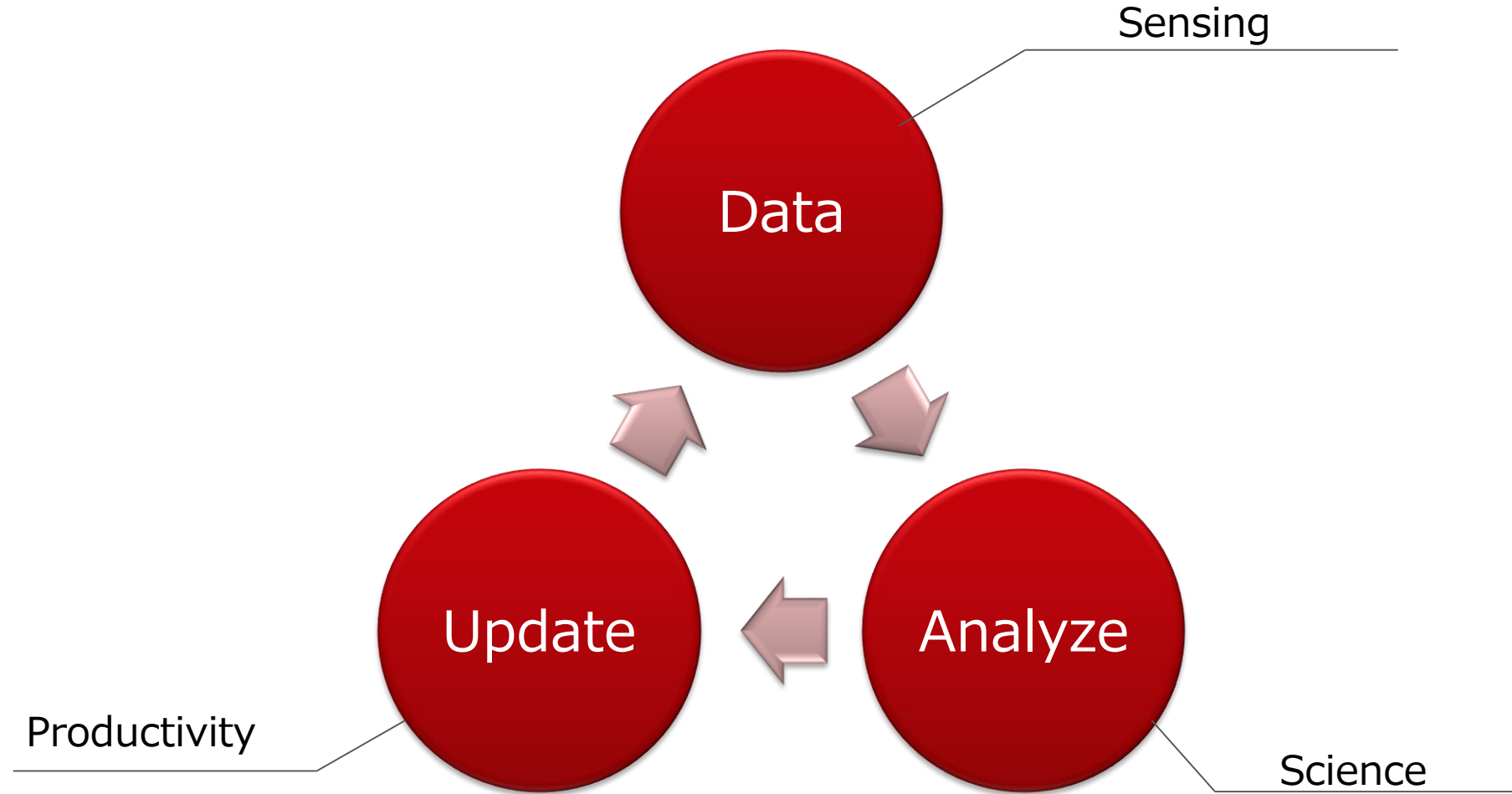
On demand resource
Scale out
Service based resource/sec control
High productivity

System “build”ing



Build a system as if it's building

Build a system in cloud



Eco System

Creating features we need

Fixing problem

As Kenji explained at Wednesday keynote.

- Standardization

- ➡ LTP, glibc MT-safe spec.

- Can't investigate problems happened in customer

- ➡ kdump, kvm init signal injection

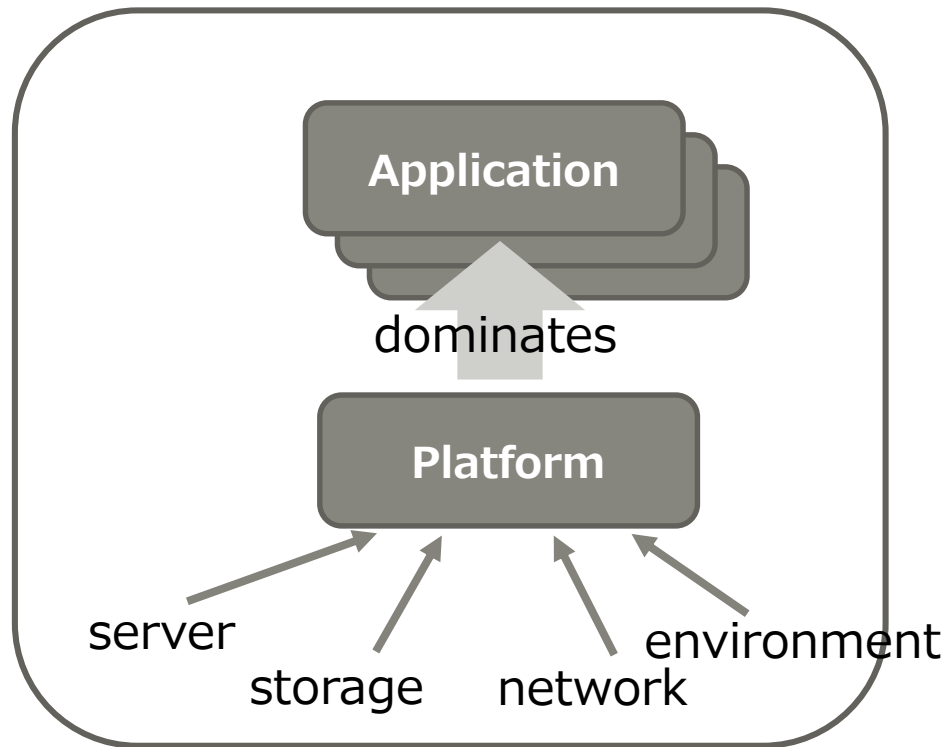
- Can't manage devices online hotplug

- ➡ PCI, Memory hotplug

- Resource troubles in user side

- ➡ memory LRU rewrite, panic-on-oom, cgroup

Customer owns both of platform and applications.



Platform dominates applications

Resources are predicted

Applications on servers are planned.

Monolithic

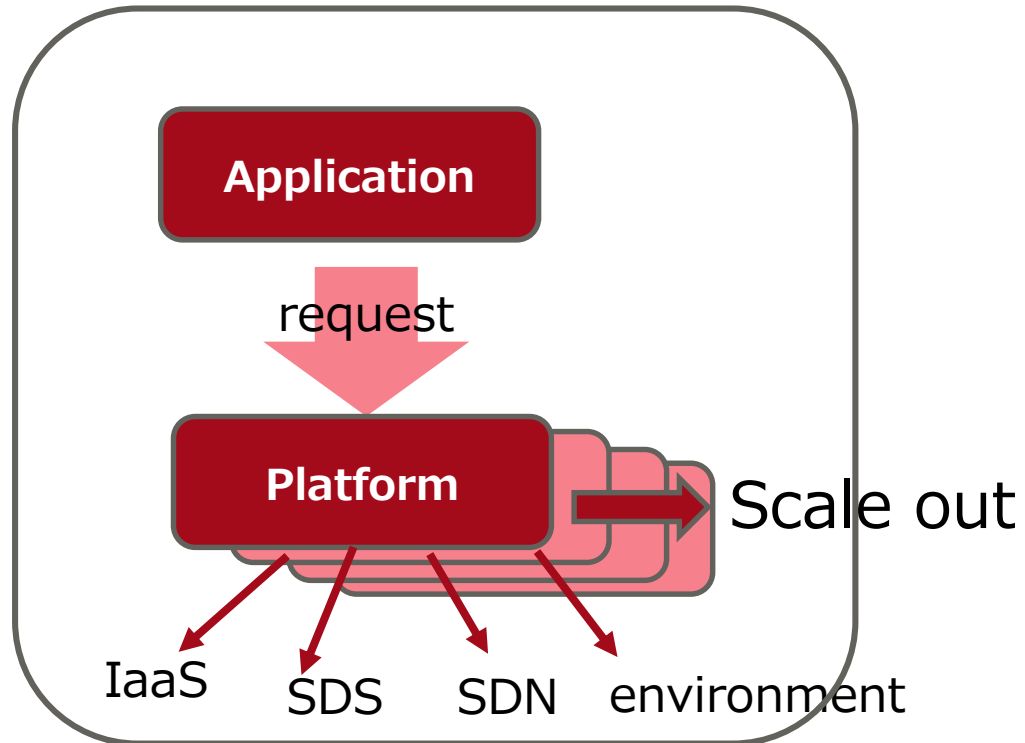
Monitoring health of servers

No dynamic scaling out

Long Life including platform

Now, platform is on-demand use.

Customer owns just applications



Applications control platform

Resources are on demand

Mixture of jobs

API driven, Microservices

Monitoring health of services

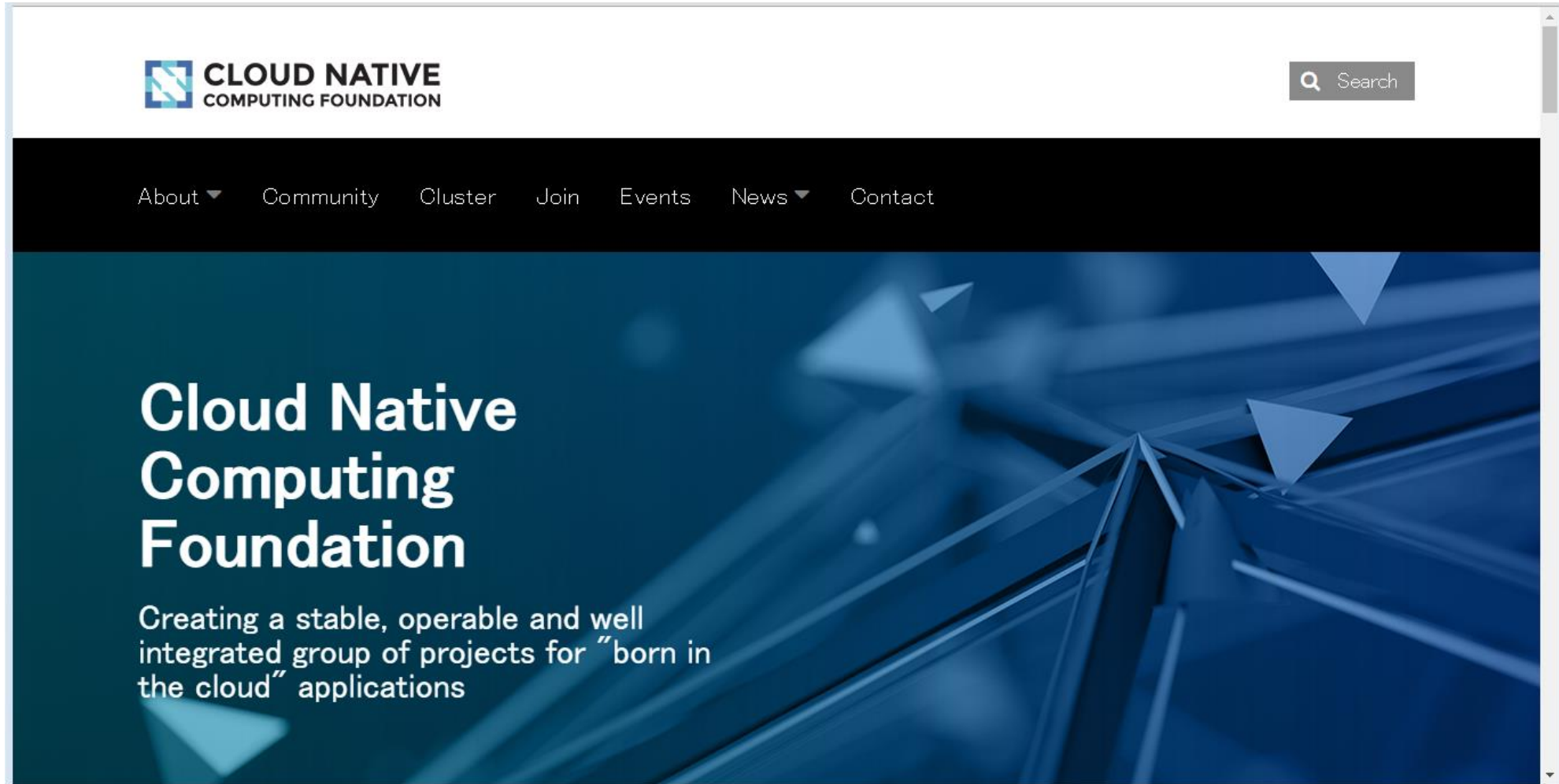
scaling out

Application dominates its own life cycle

There has been being open platform as Linux, OpenStack...

We need a new layer of open platform for customers.

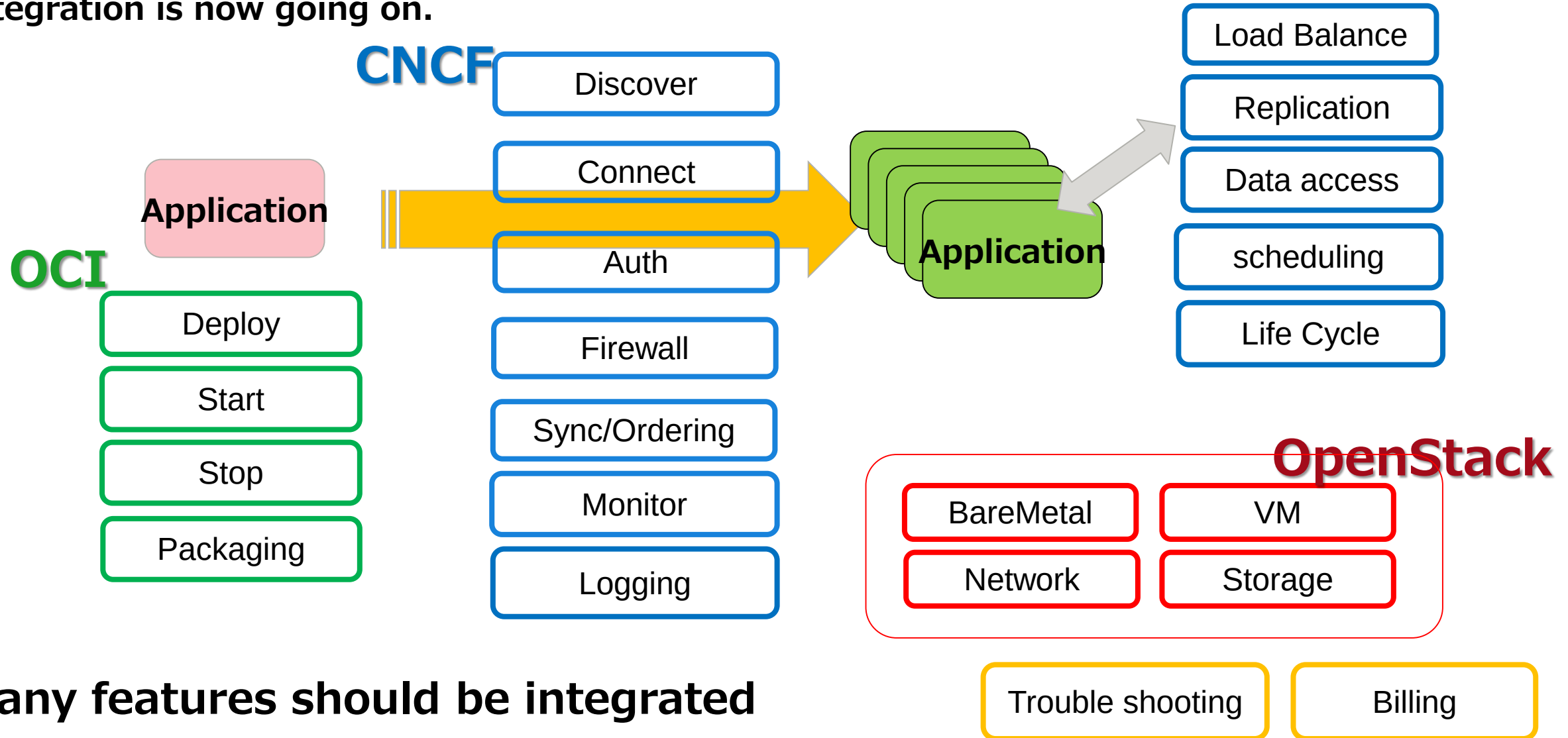
That's it.



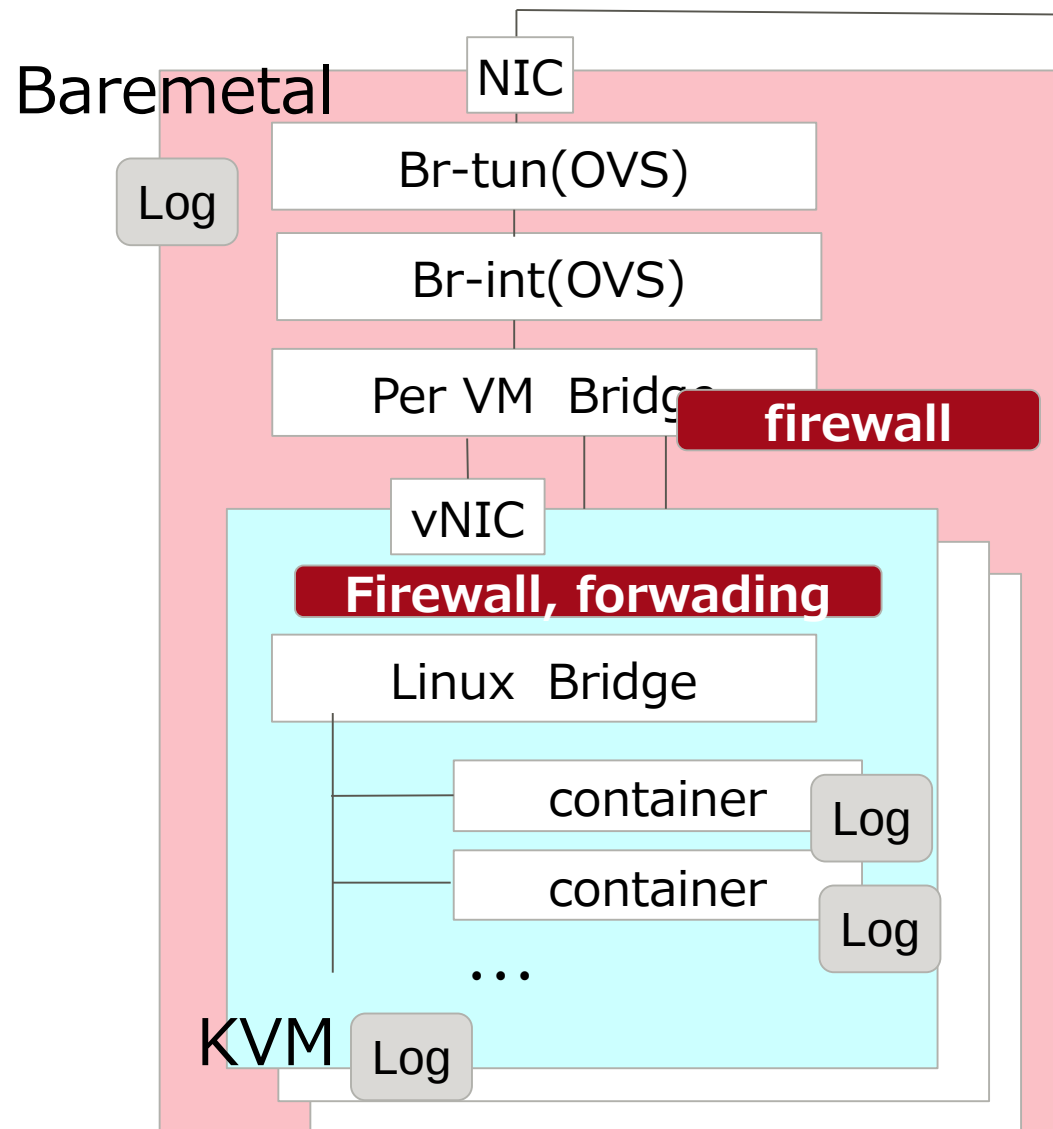
<http://cncf.io>

Connecting applications in on-demand platform

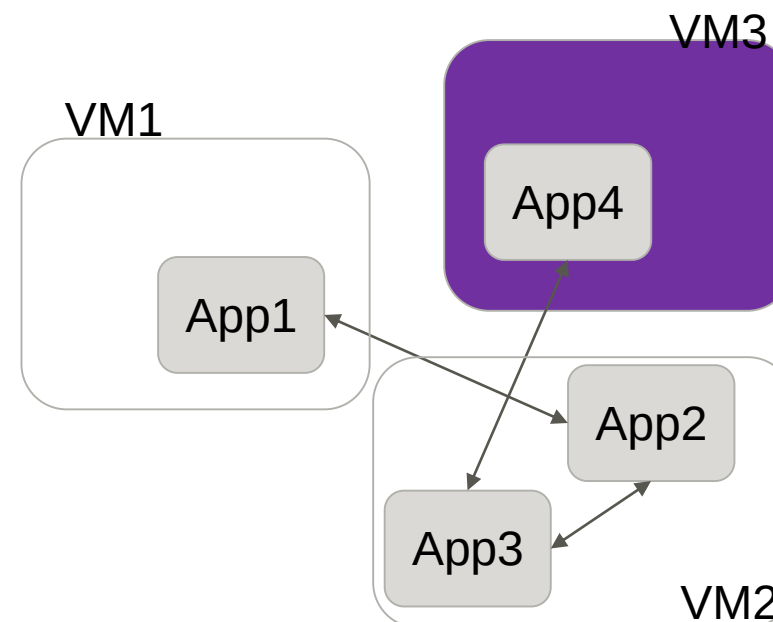
Covered by OCI, CNCF and OpenStack and other projects
Integration is now going on.



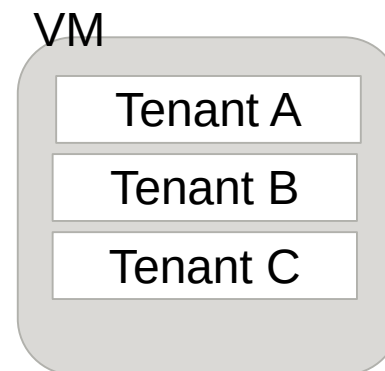
What we'll support ? (as OS support team)



Stacked network and firewalls



An application is distributed in the cloud.



Multi-tenant CaaS
based on container

Challenge areas in our view.

CNCF/Kubernetes is great but still young.

- Establish a standard (API), which can protect customer's investment
 - Including OCI
- Train Engineers
- Extra tools for debugging assist against distributed applications.
 - Visualization and Service oriented debug method
- Multi-AZ control
 - The whole cluster may fail.
- Resource prediction and cluster wide balancing.
 - Performance of service is aggregated performance of applications.
- Security as multi tenant system
 - Customer wants firewall for east-west traffic.

And

- Integration with OpenStack.

CNCF is waiting for your idea!

Enjoy Eco System ?

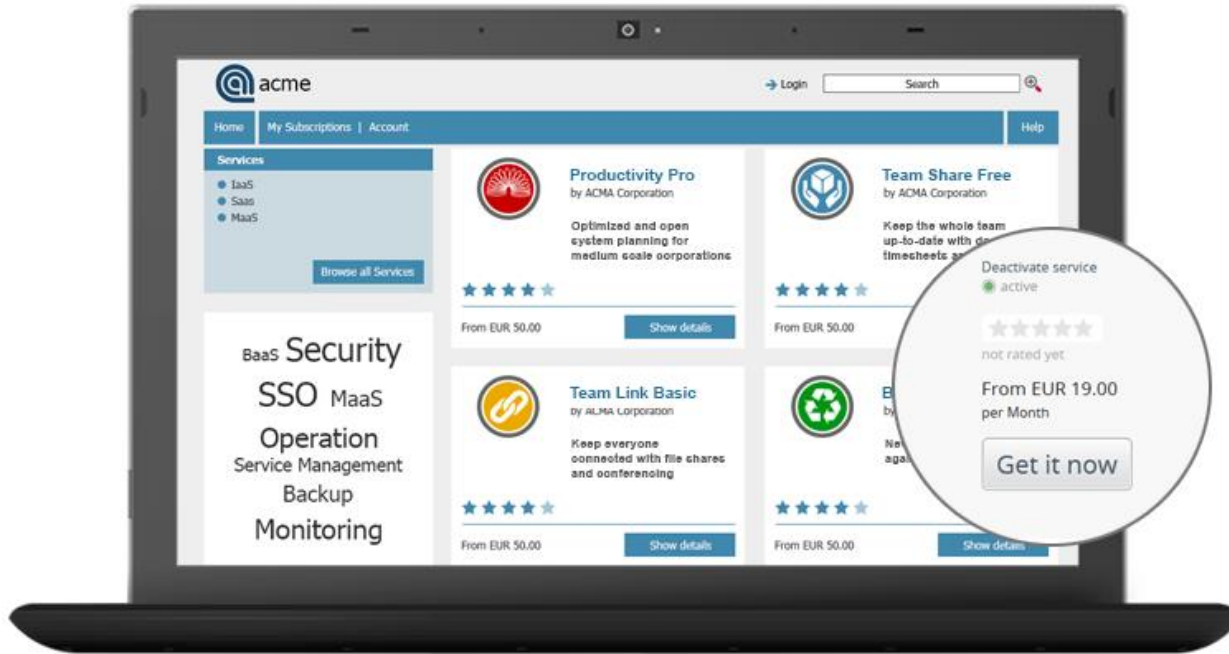


<http://www.openservicecatalogmanager.org/>

the Open Service Catalog Manager Project



enables end users to
access and launch
cloud resources and applications
with one click
in self-service mode



★
official launch
press release
on Oct 27,
2016

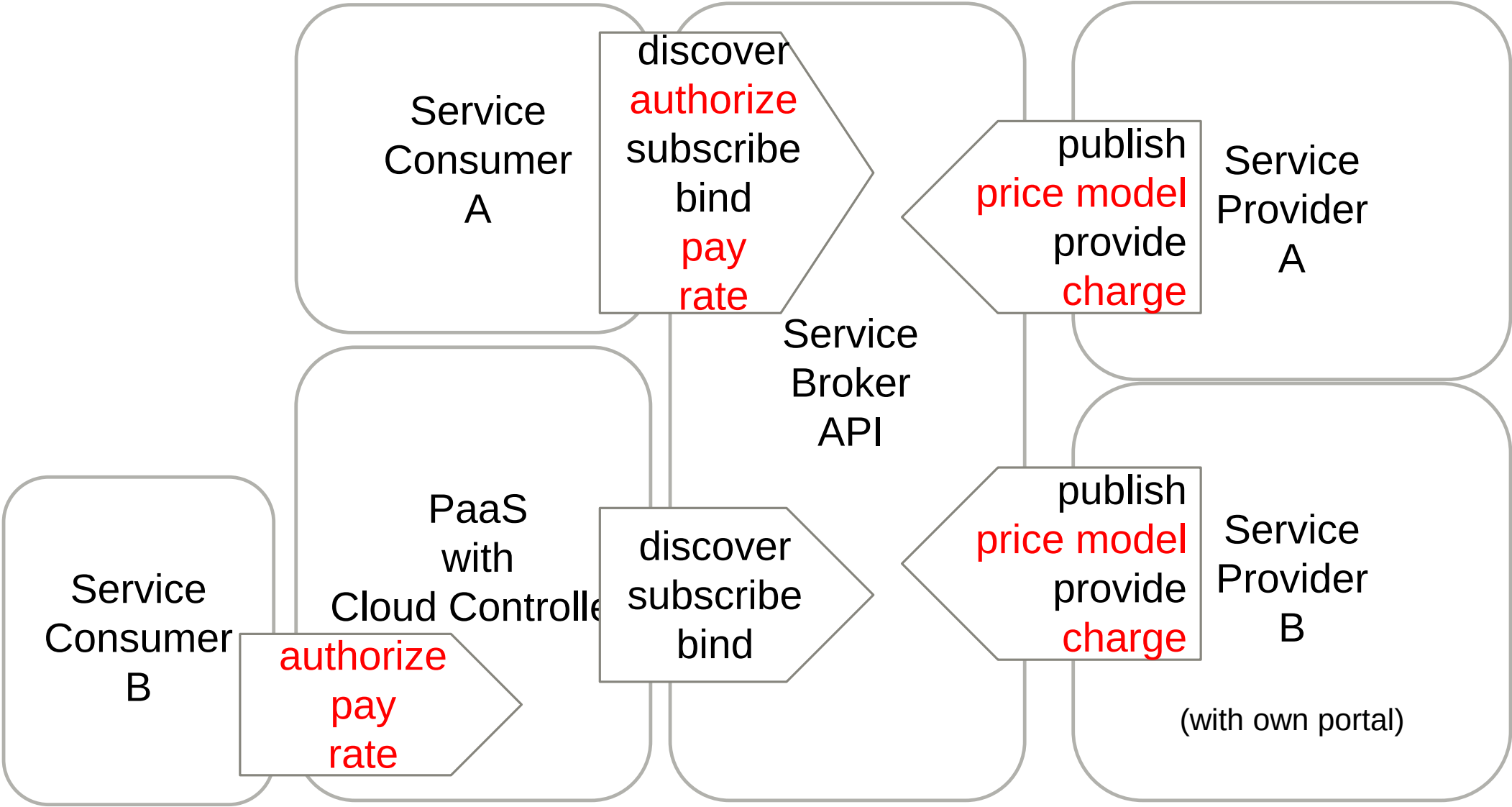
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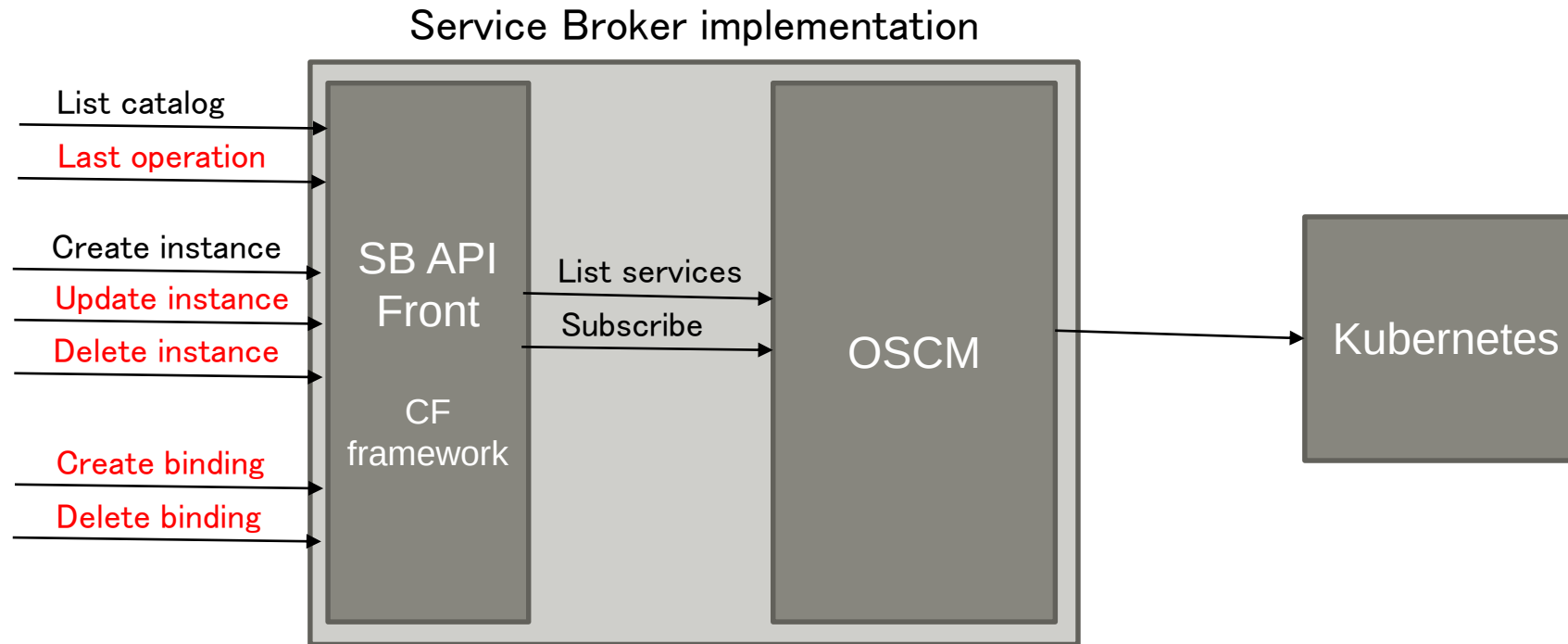
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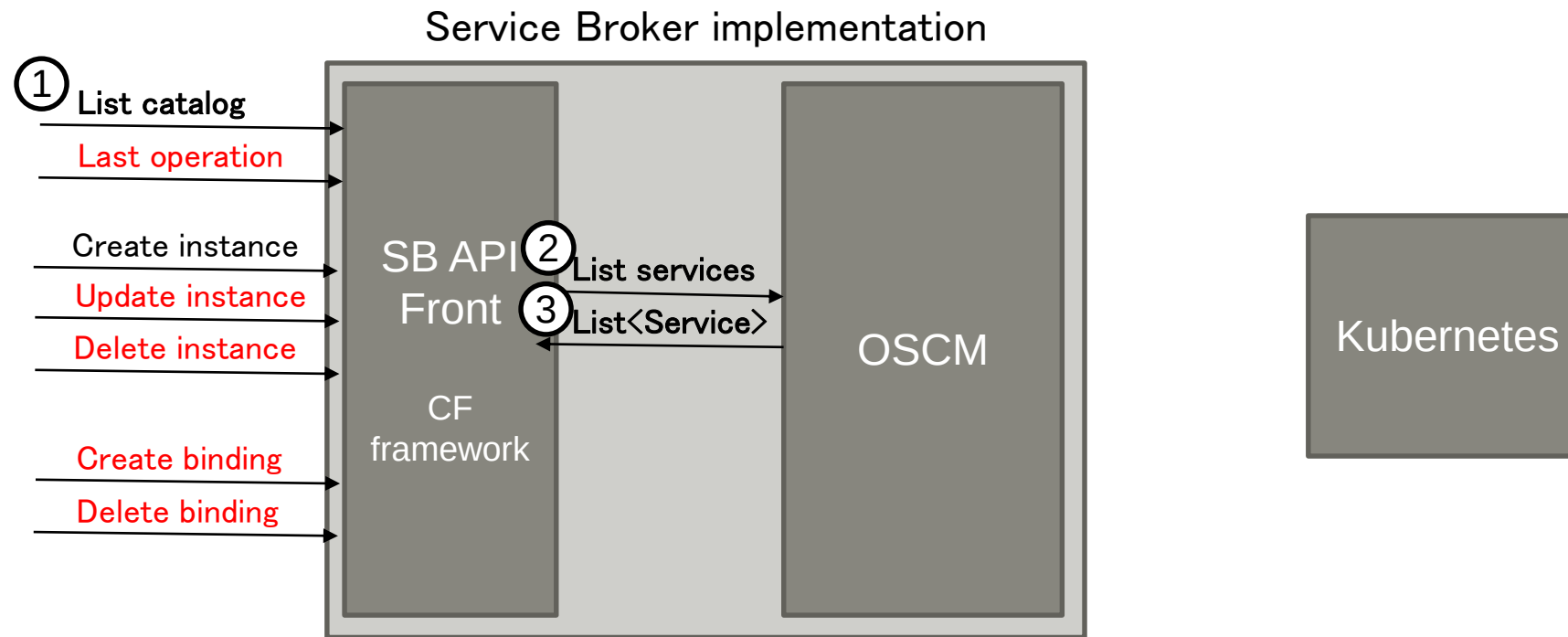
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> 190
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community
members

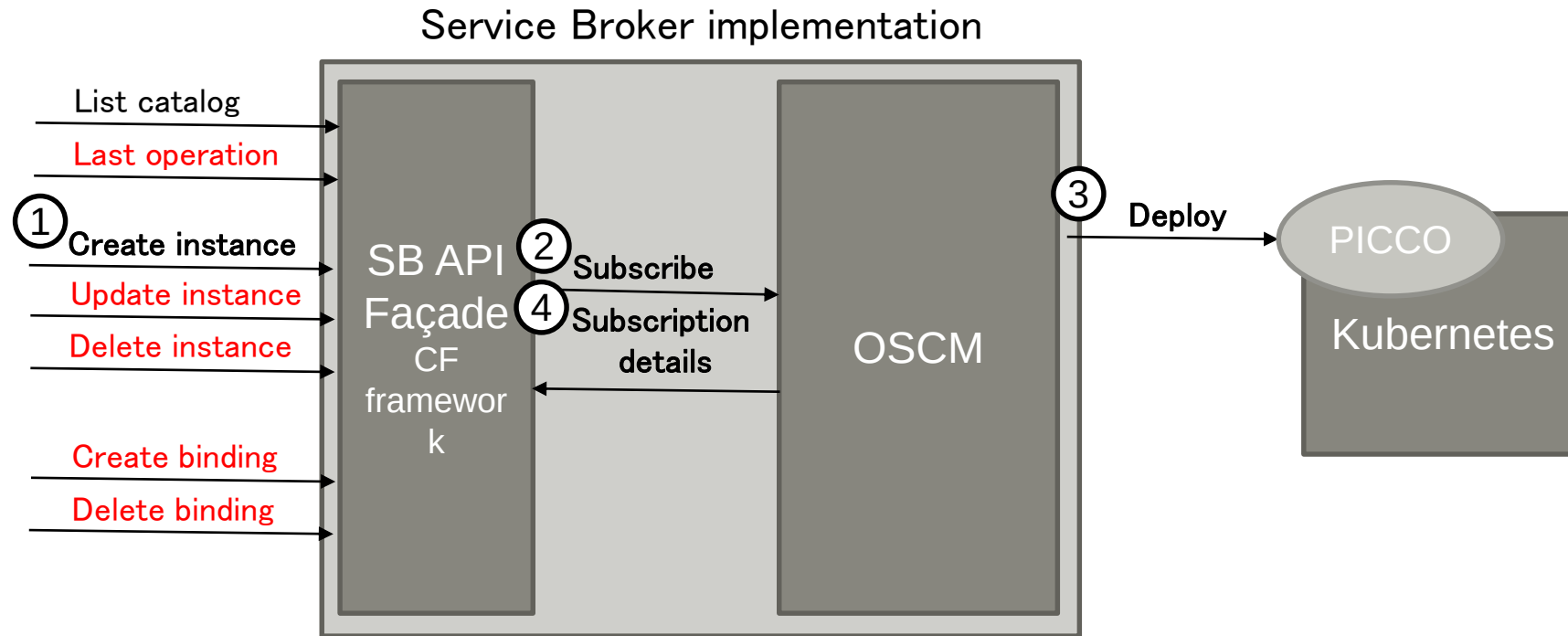
★
in commercial
use at
- service
providers
- corporate IT
departments

Joining CNCF eco-system
via Service Broker API WG









- The role of Cloud Service Broker is to mediate between any Cloud native service offering (provider) and users of such services (consumer)
- The current Cloud Service Broker API addresses technical discovery and consumption of such services, but not the commercial / business transaction aspects of such consumption
- Practical experience from work with ISVs shows that inability to charge is main inhibitor for Cloud business („if you can't charge it , don't launch it")
- Target for next step: extend the Cloud Service Broker API with suitable additional business functions (as far as proven relevant in real-life customer projects)

Let's meet at

The screenshot shows a web browser window with the URL `events.linuxfoundation.org/events/cloudnativecon`. The browser's address bar and bookmarks are visible at the top. The page header features the Linux Foundation logo and navigation links for HOME, TRAINING, EVENTS, and COLLABORATIVE PROJECTS. The main content area has a blue background with a cityscape image of Seattle, including the Space Needle and Mount Rainier. Overlaid on this image is the event logo: a stylized 'N' icon followed by the text 'CLOUD NATIVE CON Seattle 2016'. Below the image, a teal banner contains the event dates 'November 8 - 9, 2016', the location 'The Sheraton Seattle, Seattle, WA', and the hashtag '#cloudnativecon' with social media icons for Twitter, Facebook, LinkedIn, and Google+. A descriptive paragraph states: 'CloudNativeCon (a CNCF event) gathers leading technologists from multiple open source cloud native communities to further the education and advancement of cloud native computing.' On the right side, there are three buttons: 'Register Now' (blue), 'Submit a Talk' (teal), and 'Become a Sponsor' (dark grey).

events.linuxfoundation.org/events/cloudnativecon

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Home Program Attend Sponsors Features and Add-Ons CFP Dashboard

 CLOUD NATIVE CON
Seattle 2016

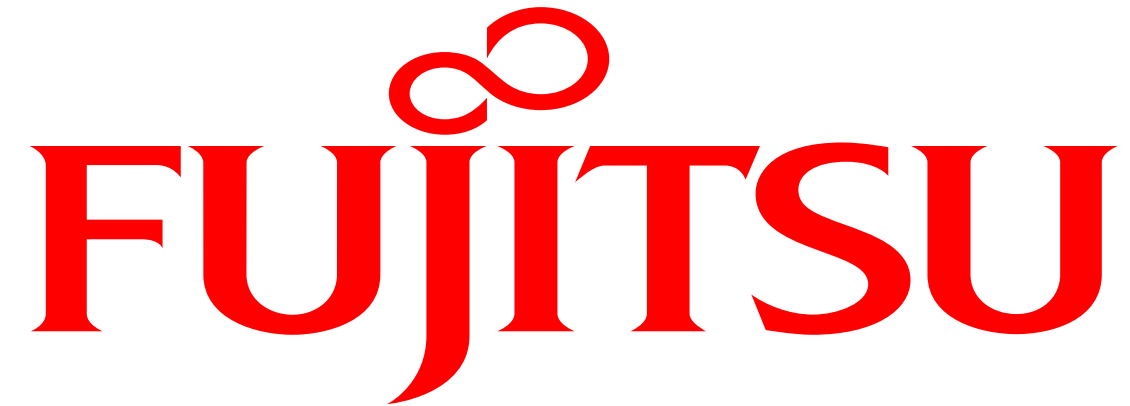
📅 November 8 - 9, 2016 📍 The Sheraton Seattle, Seattle, WA #cloudnativecon

CloudNativeCon (a CNCF event) gathers leading technologists from multiple open source cloud native communities to further the education and advancement of cloud native computing.

Register Now

Submit a Talk

Become a Sponsor



shaping tomorrow with you