

# The 19<sup>th</sup> Northeast Asia OSS Promotion Forum 2021



**Multi-Cloud,  
OSS based CJK Cloud Collaboration Ecosystem**

**DONG-JAE, KANG**

Cloud-Barista Community Leader, ETRI

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**I** Cloud-Barista Technology and Usecases

**II** OSS based Cloud Collaboration Echo-system

**III** Cloud-Barista Community



# Cloud-Barista ?

**Cloud-Barista** is the common SW required for multi-cloud service or solution

※ OSS community has also the same name, Cloud-Barista(@github)



Multi-Cloud Service Common Platform



OSS Community



For. Multi-Cloud **C.E.O** SW

- **(Common)** the common and core SW for multi-cloud service or solution
- **(Efficient)** eliminating redundant development for similar SW
- **(Open)** fully free usage by everybody with needs

For. Collaboration & Sharing

- **(Communication)** Knowhow, New idea, ...
- **(Share)** source code, documents, ...
- **(Collaboration)** design, development, adoption, ...

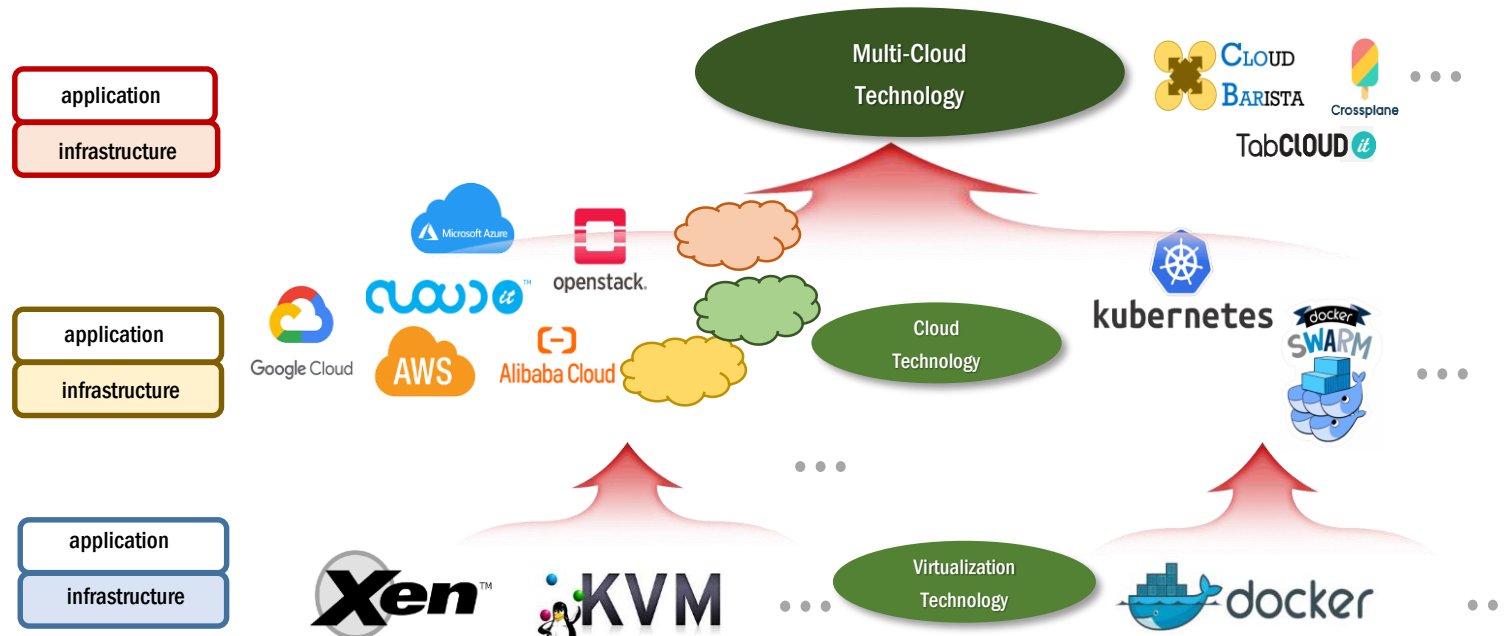
Resolve the technical Gap  
between provider and user

# Concept of “multi-cloud”

- **Multi-cloud technology**

- The next-generation cloud core technology to federate, operate and manage the two more clouds in aspect of infrastructure and application

**Muti-Cloud** is the new technology to make a new normal cloud echo-system based on global & existing cloud technologies

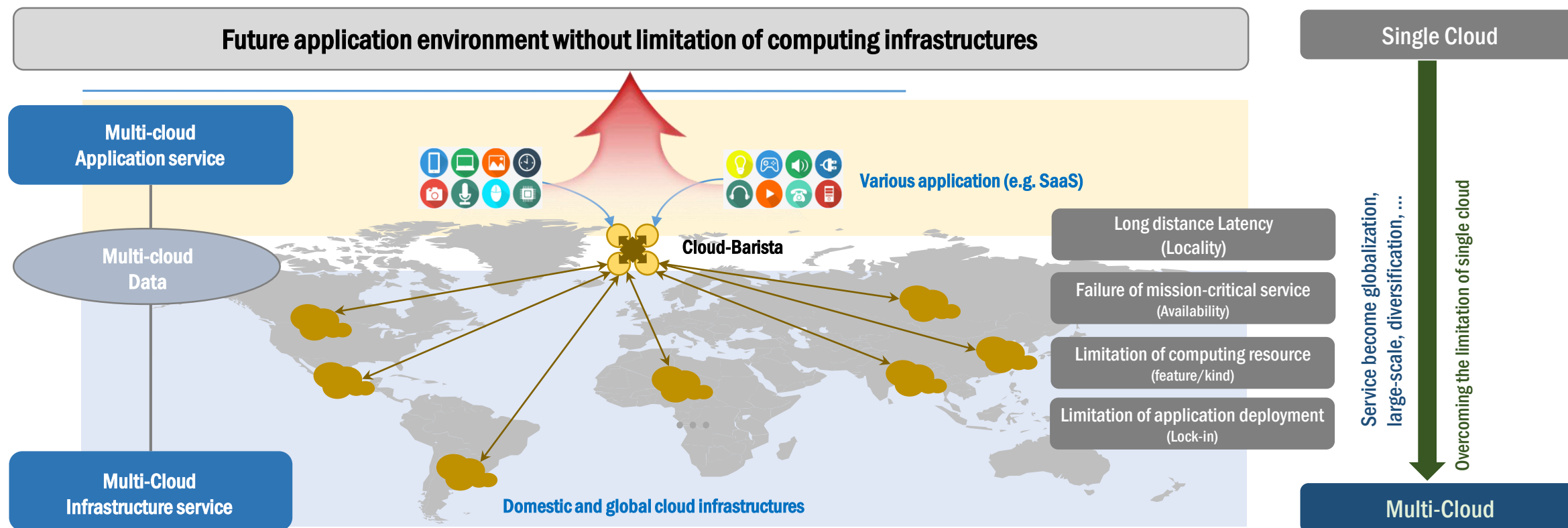




# Cloud-Barista : Multi-Cloud service common platform

## Cloud-Barista

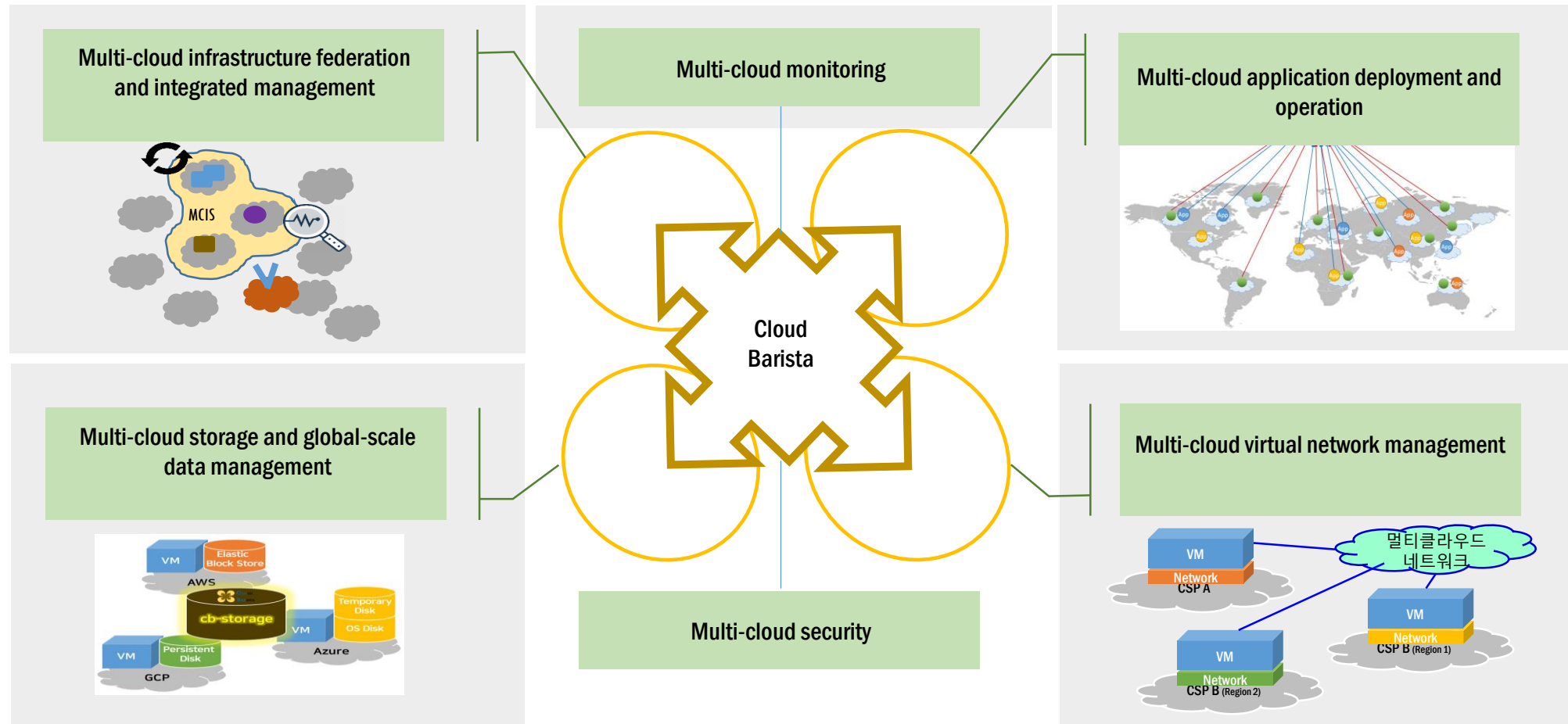
Next-generation cloud technology that can federate various domestic and global cloud infrastructures to form a global scale multi-cloud infrastructure that anyone can easily access, and to deploy and manage application services to all over the world



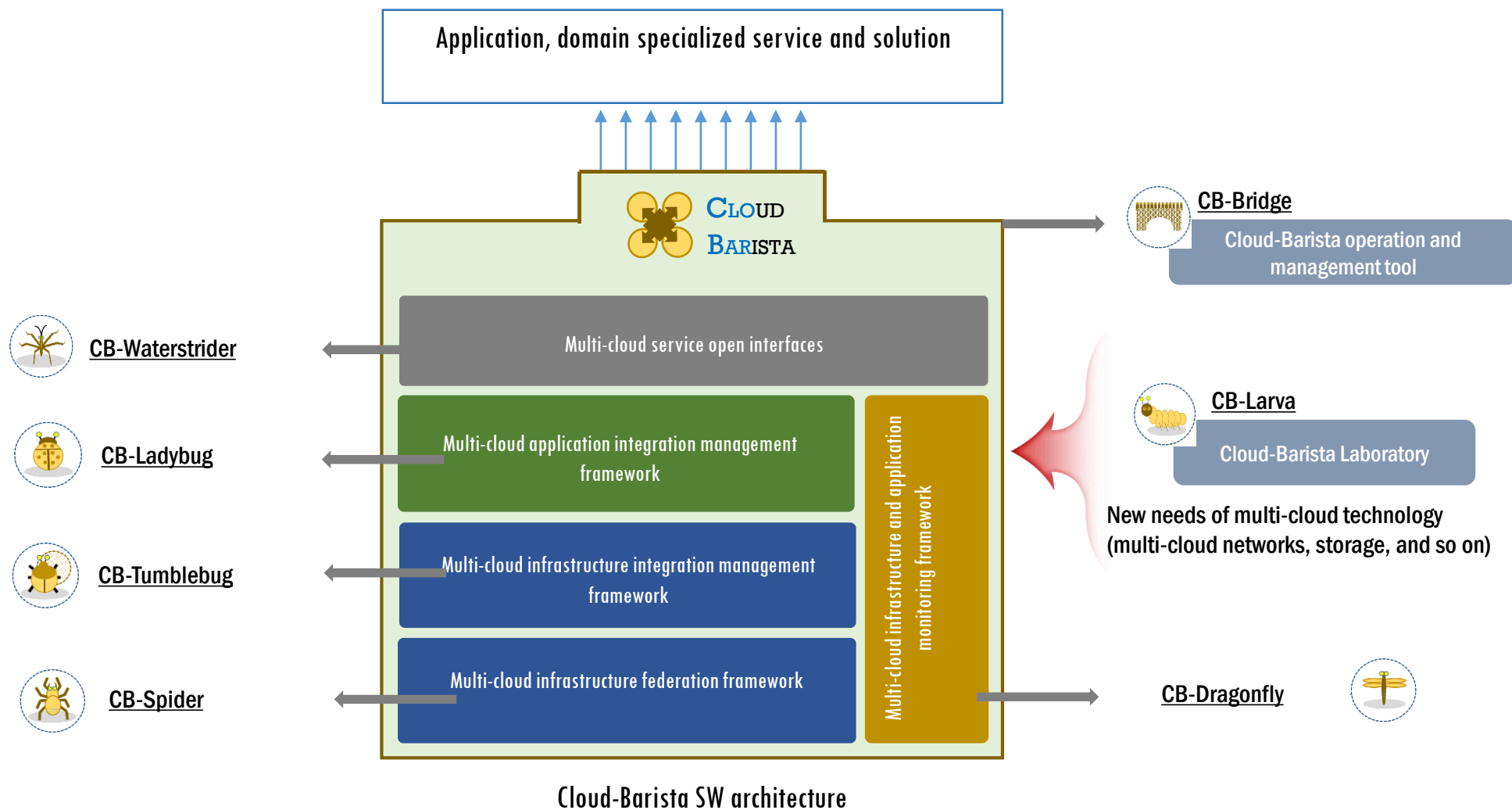
[Concept of Cloud-Barista technology]

# Main technology area of Cloud-Barista

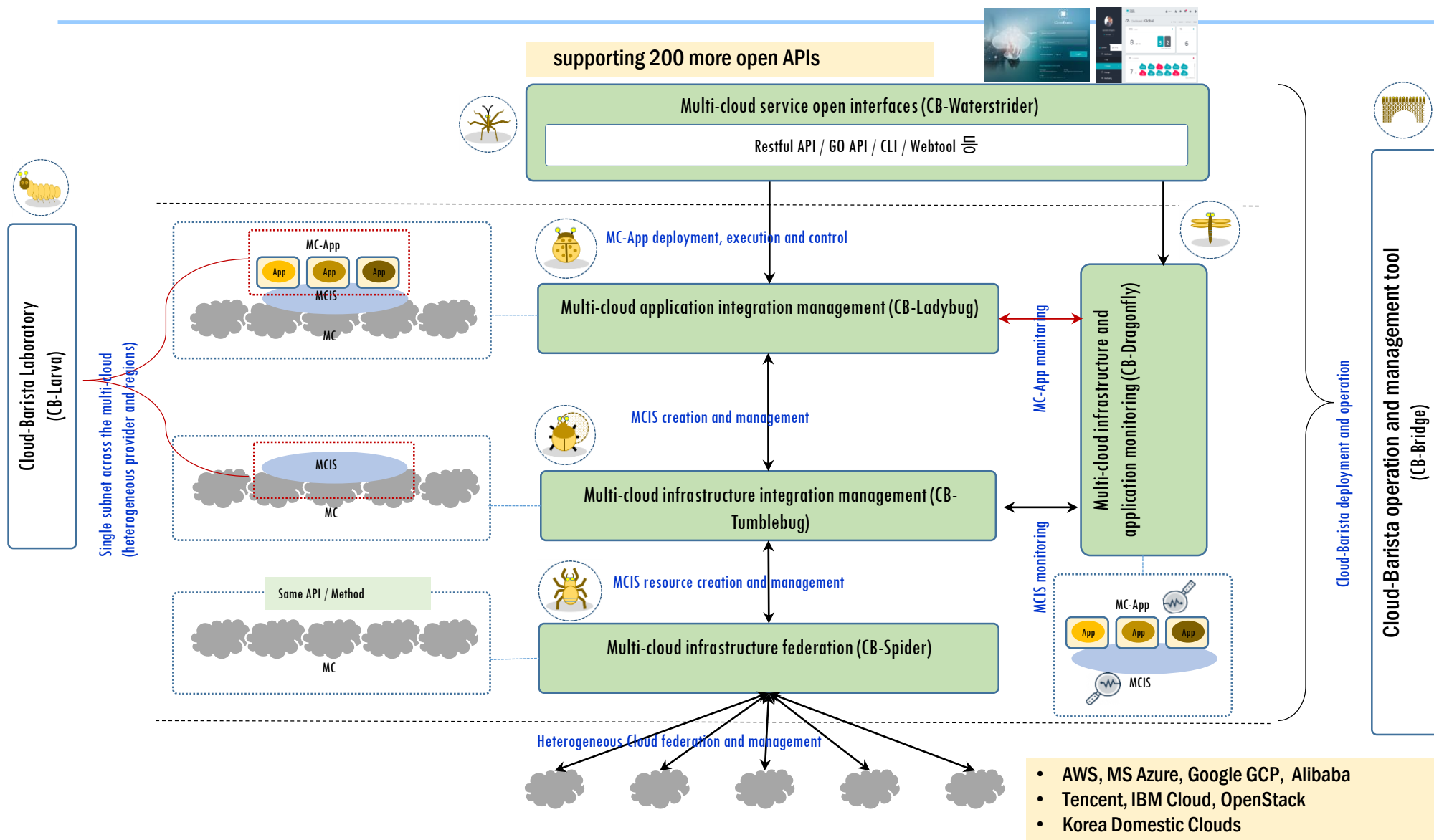
- 5 main technologies and 1 additional one



# (Ref.) Cloud-Barista SW stack and logos



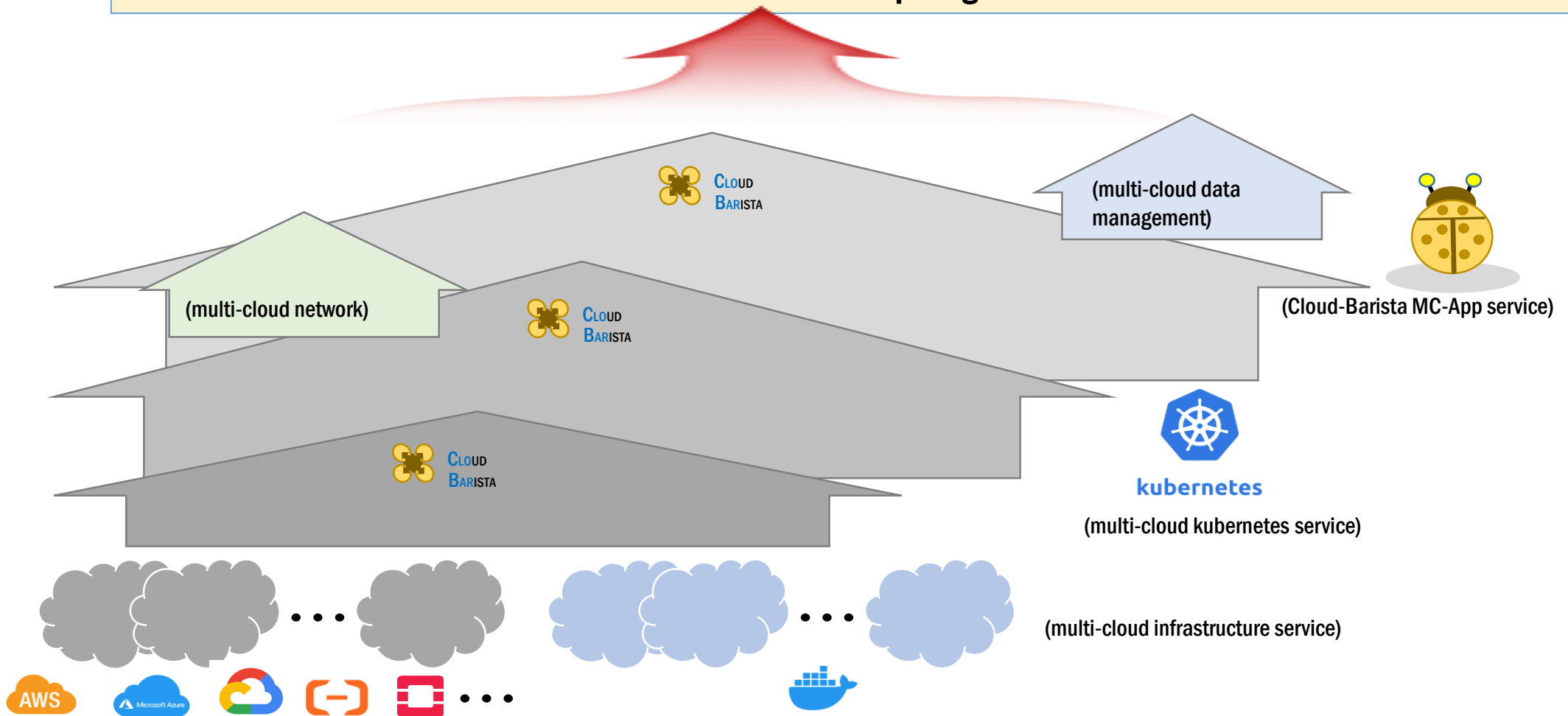
# Relationships between Cloud-Barista frameworks





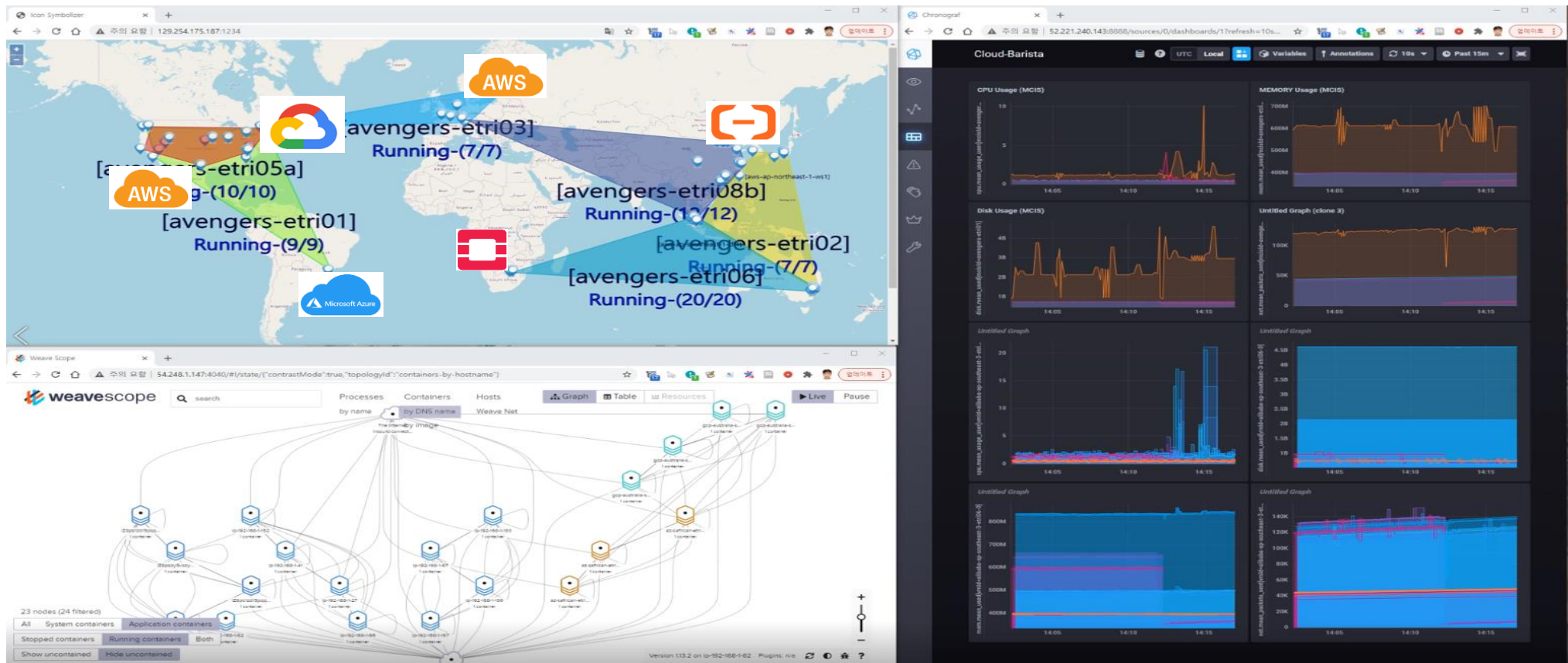
# Cloud-Barista service roadmap

**Future application operation and management environment  
without limitation of computing infrastructures**



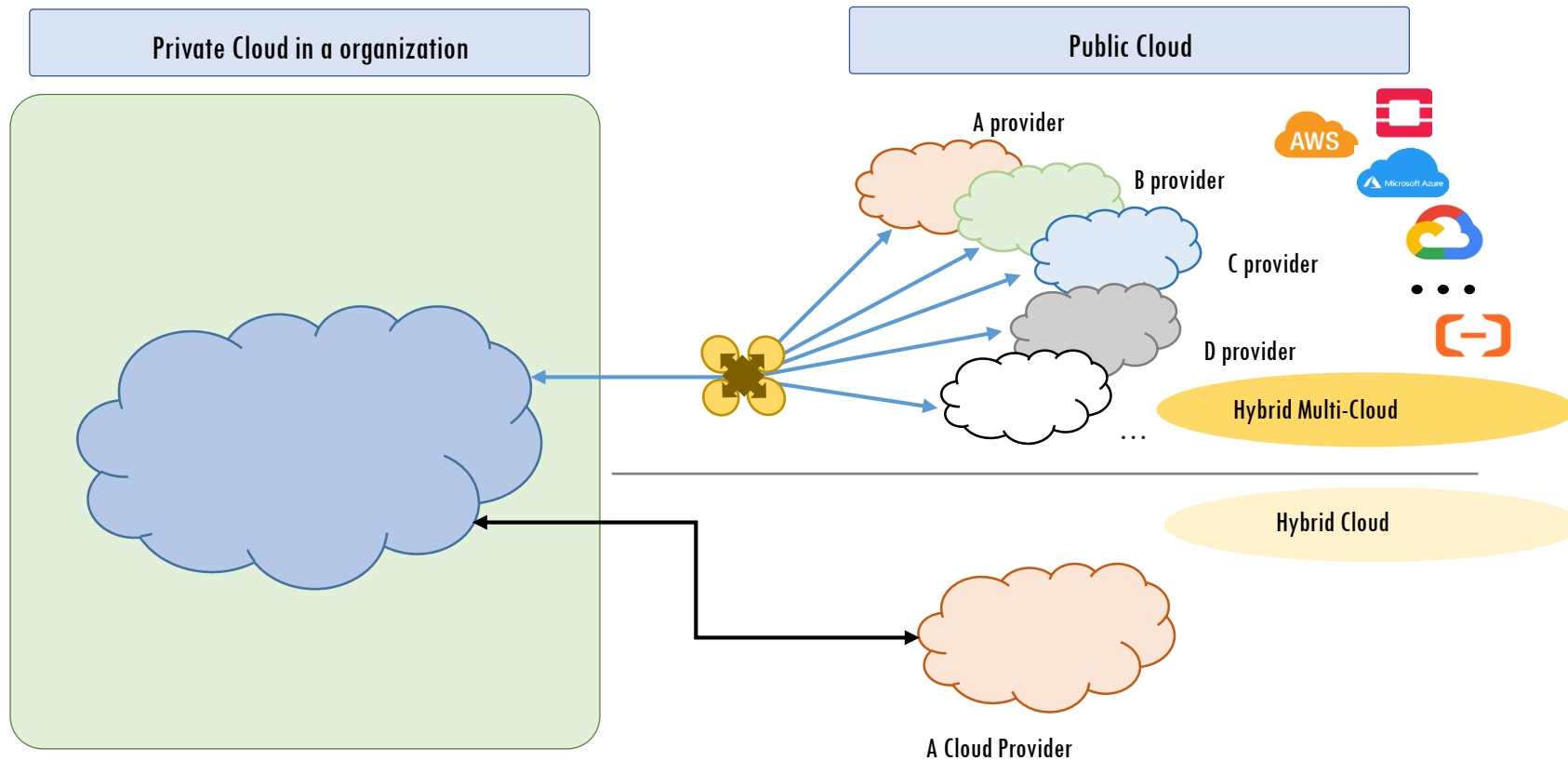
# (Usecase) Global-scale cloud infrastructure creation and application deployment

- Federation of 100 cloud regions around the world, 1 virtual machine per cloud, deployment of monitoring agent in each VM
  - 4 different providers : Amazon EC2, Google GCP, MS Azure, Alibaba Cloud
  - All jobs takes about 40~50 minutes in one Cloud-Barista API scripts



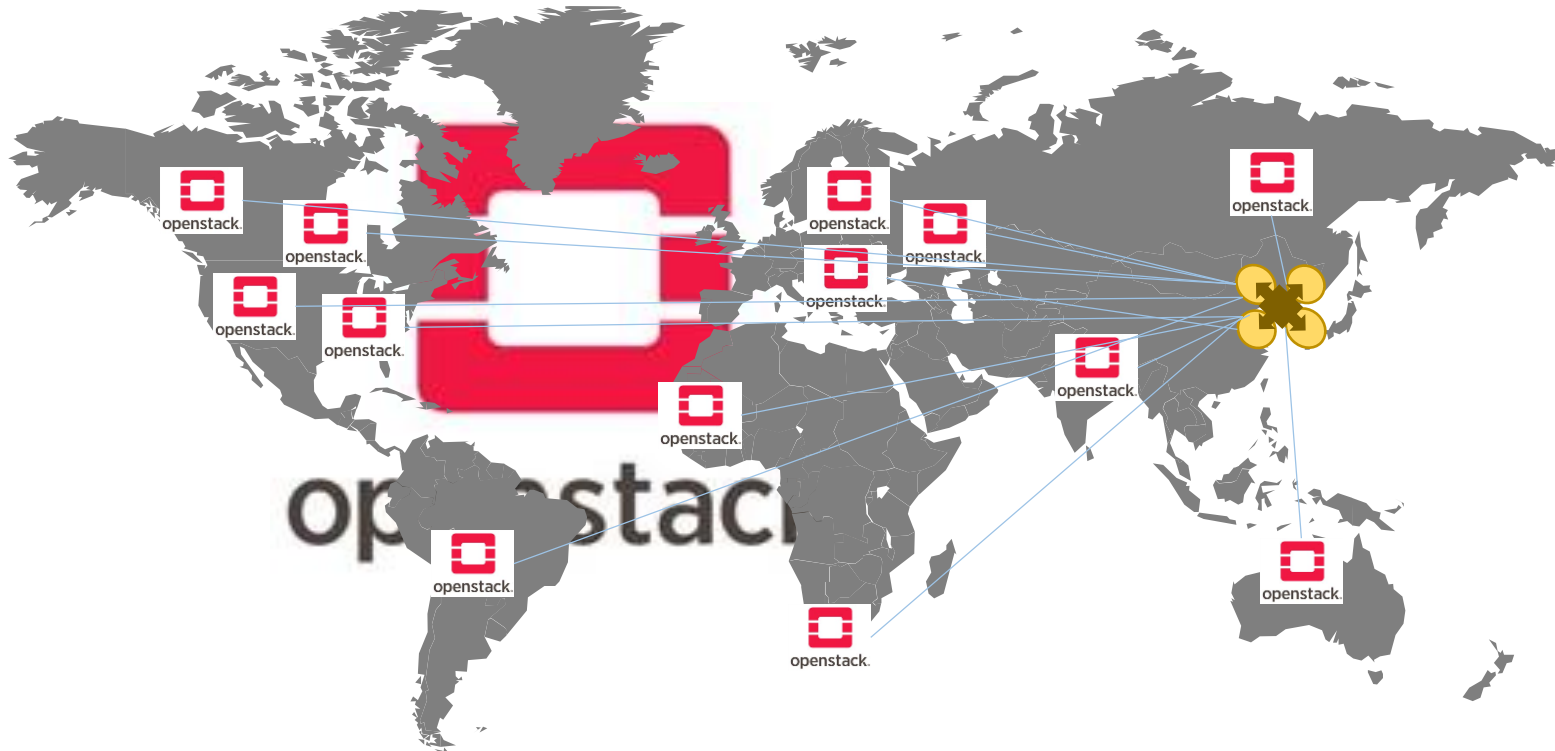
# (Usecase) Hybrid multi-cloud solution

- Next generation hybrid cloud solution
  - Advancement of existing hybrid cloud management solution
  - Hybrid multi-cloud solution can connect private cloud in a organization(e.g. enterprise) to any outside clouds



## (Usecase) Integrated management solution of same CSP's multiple cloud regions

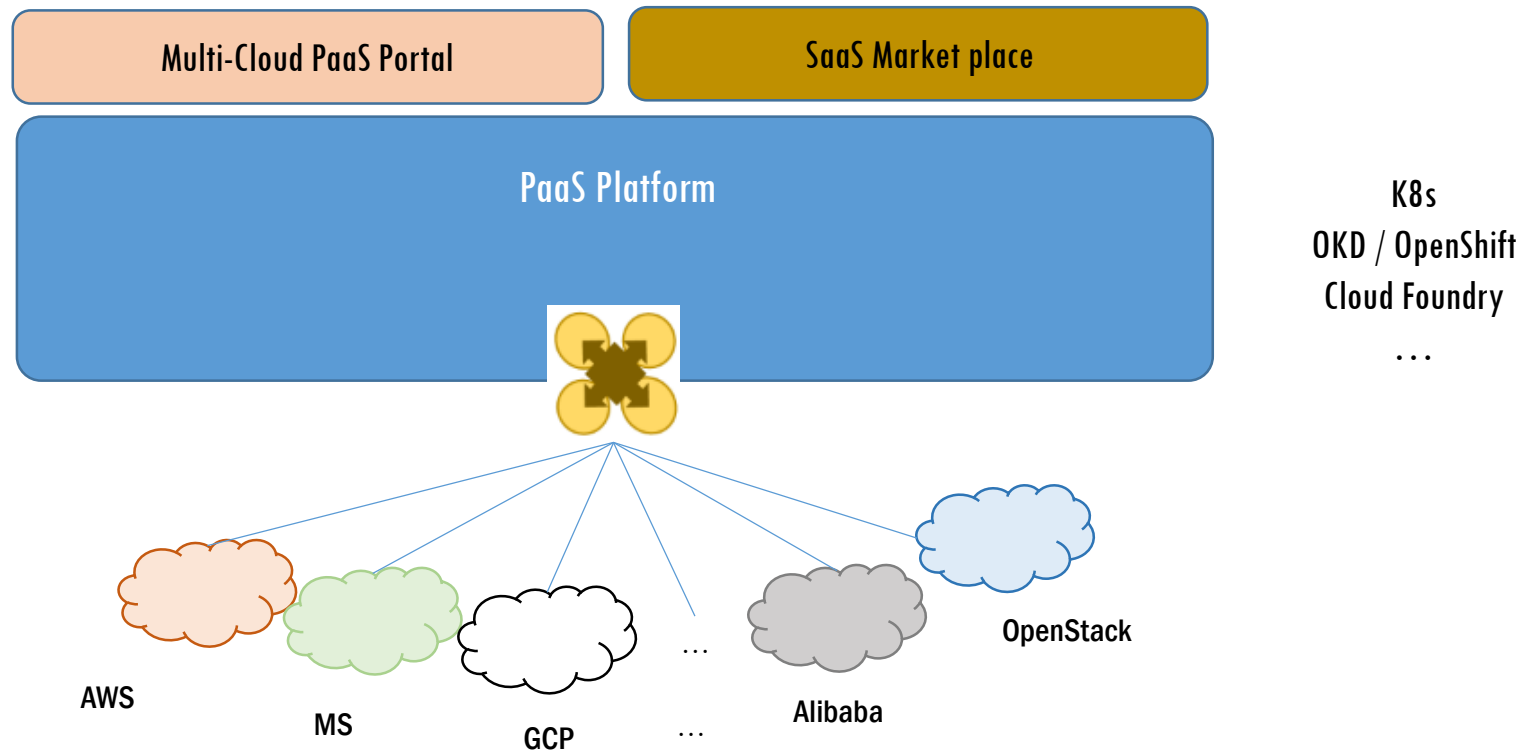
- Support integrated cloud services(infrastructure and application) across the multiple regions provided by a single CSP
  - (AS-IS) Cloud in each region is needed separated operation and management in different ways
  - (TO-BE) One point management and integrated service across the all regions can be possible



[e.g. Globally, One OpenStack]

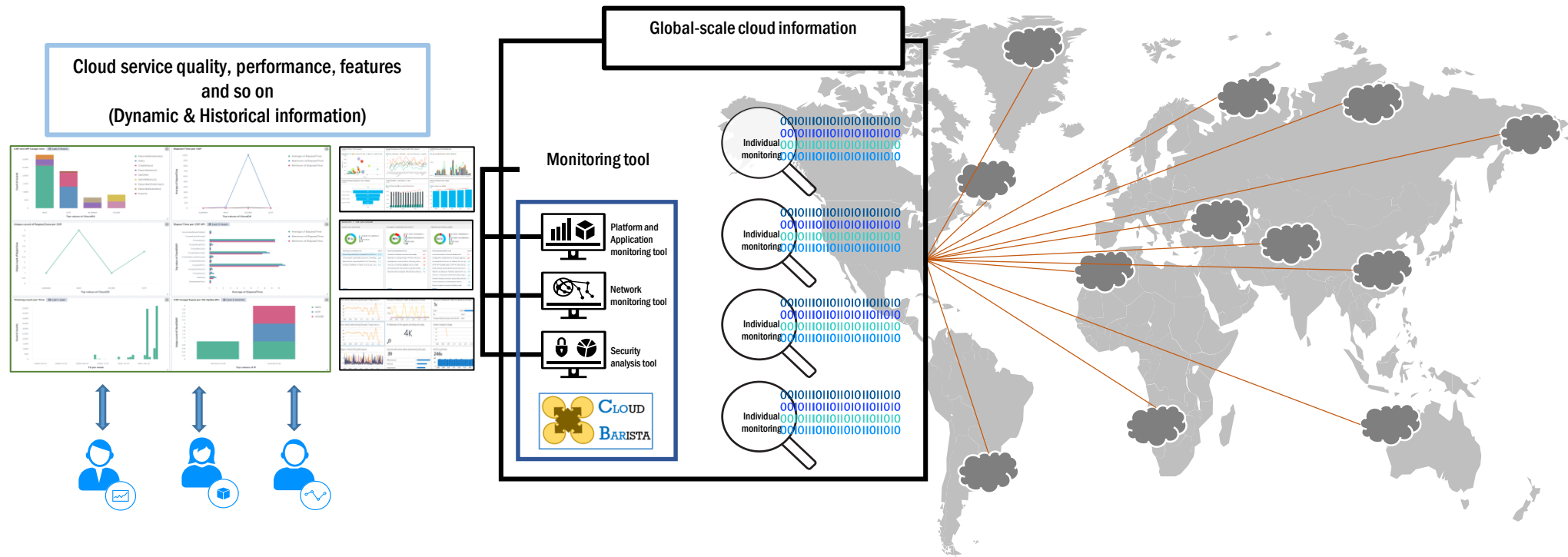
## (Usecase) Multi-Cloud PaaS platform

- Multi-cloud application deployment and operation platform(multi-cloud PaaS platform) for the purpose of eliminating vendor lock-in and using best-fit cloud specialized the application
  - e.g. Global-scale Video conferencing service



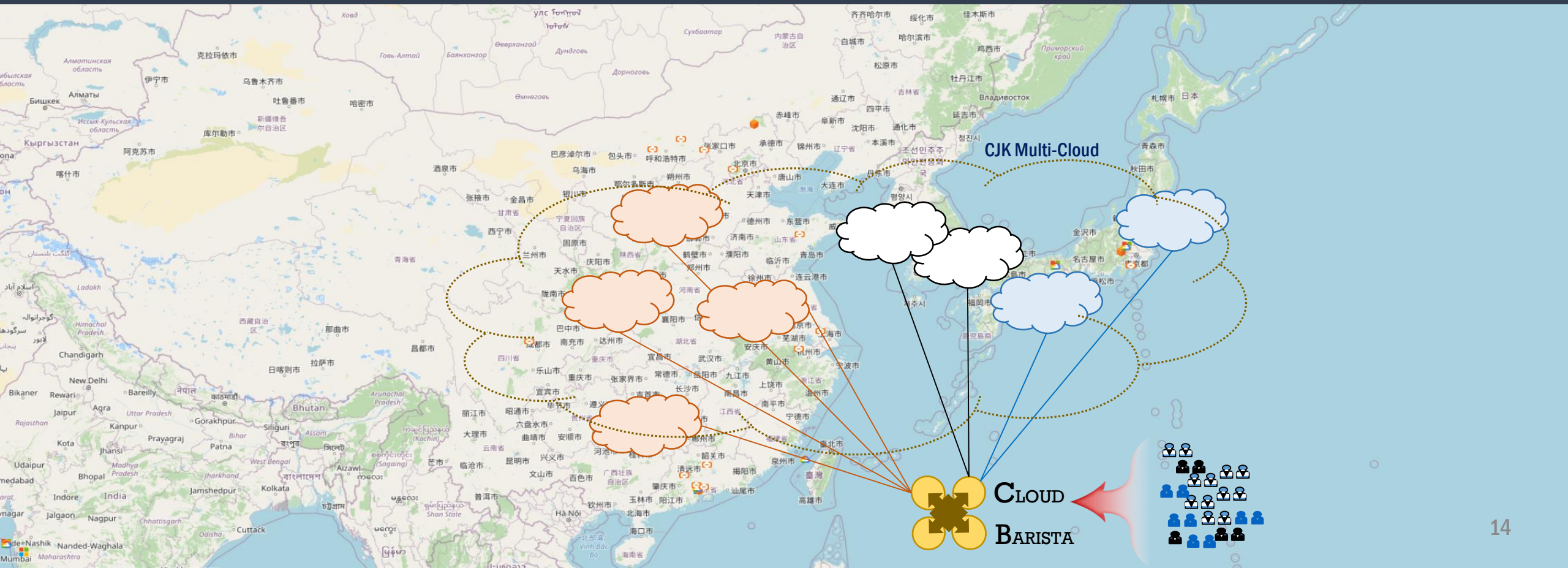
# (Usecase) Cloud consulting Insight service supporting worldwide Cloud information

- Collect and analyze performance and status information of various cloud services around the world
  - Cloud MSP(Managed Service Provider) can be used as basis information for cloud consulting and cost optimization
  - Users can select and use the cloud that suits their needs by acquiring actual infrastructure information rather than static information



# OSS based CJK Cloud Collaboration echo-system

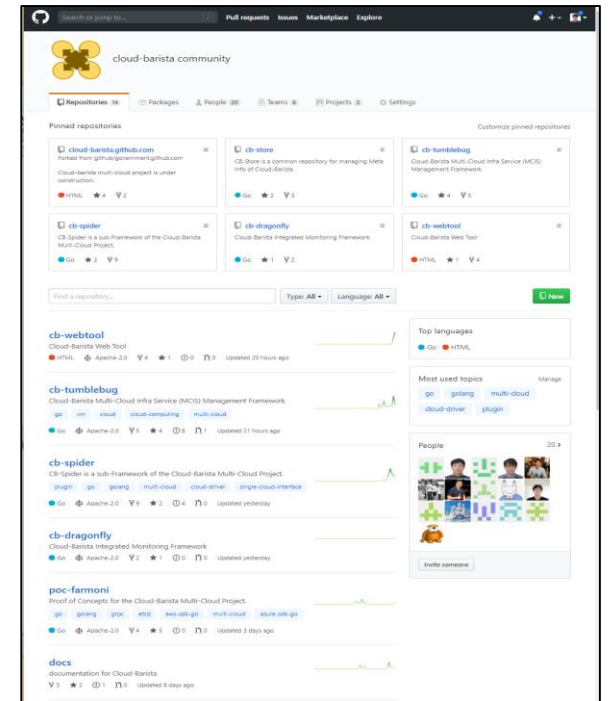
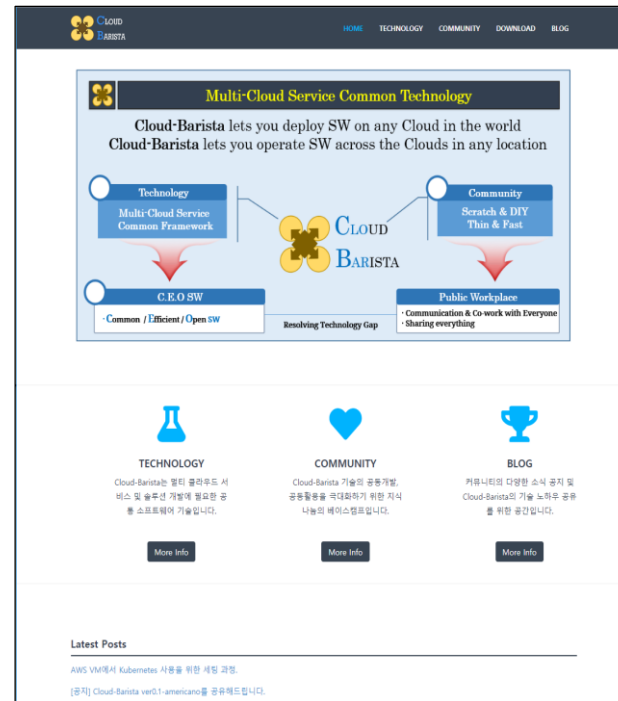
- Cloud-Barista can establish multi-cloud across Korea-China-Japan, and we make a new chance to collaborate in OSS and Cloud business (example is below)
  - **(Biz area)** Can utilize 3 country's Cloud services through one portal/interface in same ways
  - **(Public area)** Can support non-profit common R&D cloud resources across the 3 countries





# Cloud-Barista Community Information

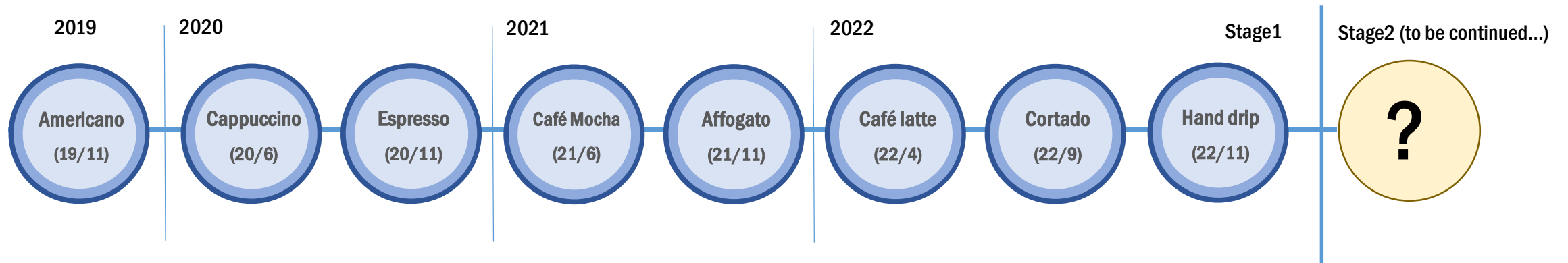
- Cloud-Barista community is open source cooperation work place for development and usage
  - Sharing the knowledge in all process of Cloud-Barista design, development, testing, adoption and so on
- Community activity (source code, documents, presentation, videos and so on)
  - Github : <https://github.com/cloud-barista>
  - Website : <https://cloud-barista.github.io>



[ Cloud-Barista website and github ]

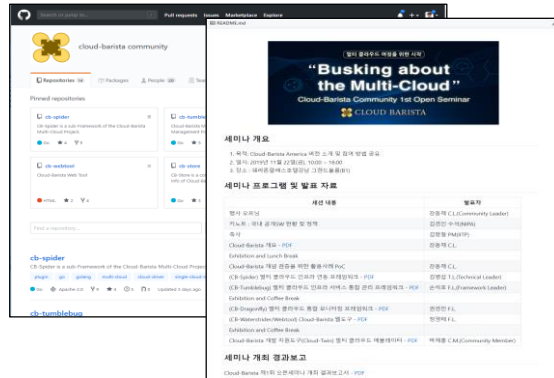
# Source code release and conference roadmap

- Source code license : Apache 2.0
  - Released under the Apache 2.0 license, which is useful for utilization and commercialization in aspect of technology consumers and excellent compatibility with major cloud OSS
    - OpenStack, Kubernetes, Mesos, Container Linux, Docker 등
- Development language
  - GO language that is accepted by major cloud open source software and has the highest developer spread rate
    - Docker, Kubernetes, Crossplane, InfluxDB 등



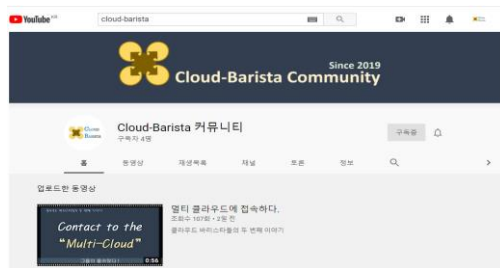
# Knowhow and information sharing

github



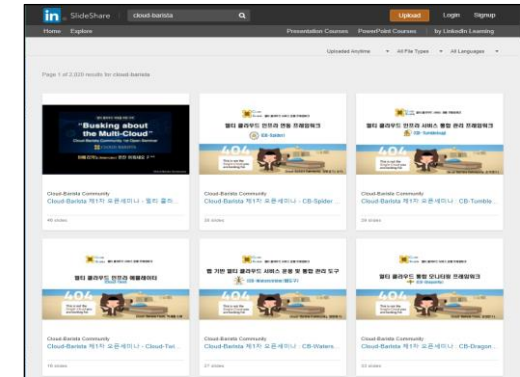
[www.github.com/cloud-barista](https://github.com/cloud-barista)

youtube



<https://cloud-barista.github.io/youtube>

slideshare

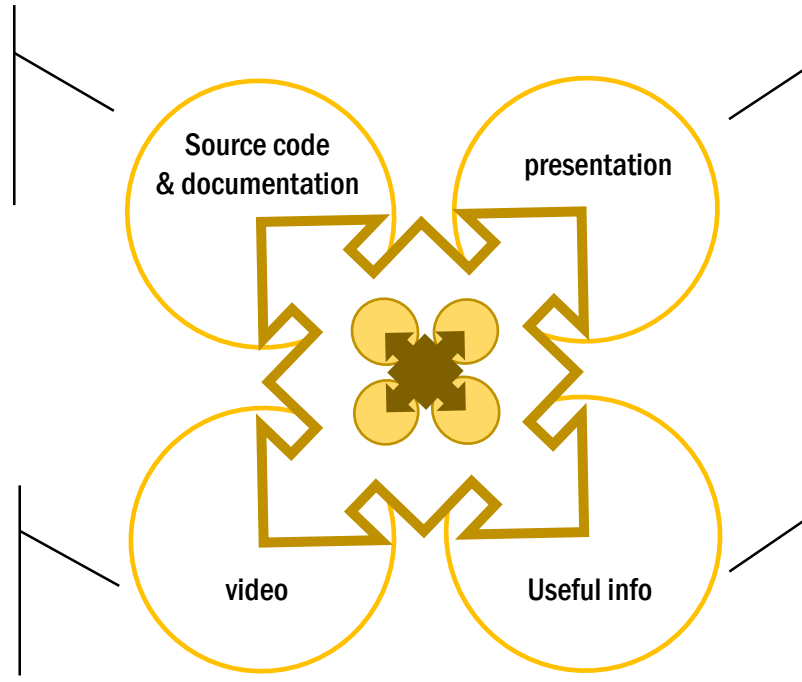


[www.slideshare.com/cloud-barista](http://www.slideshare.com/cloud-barista)

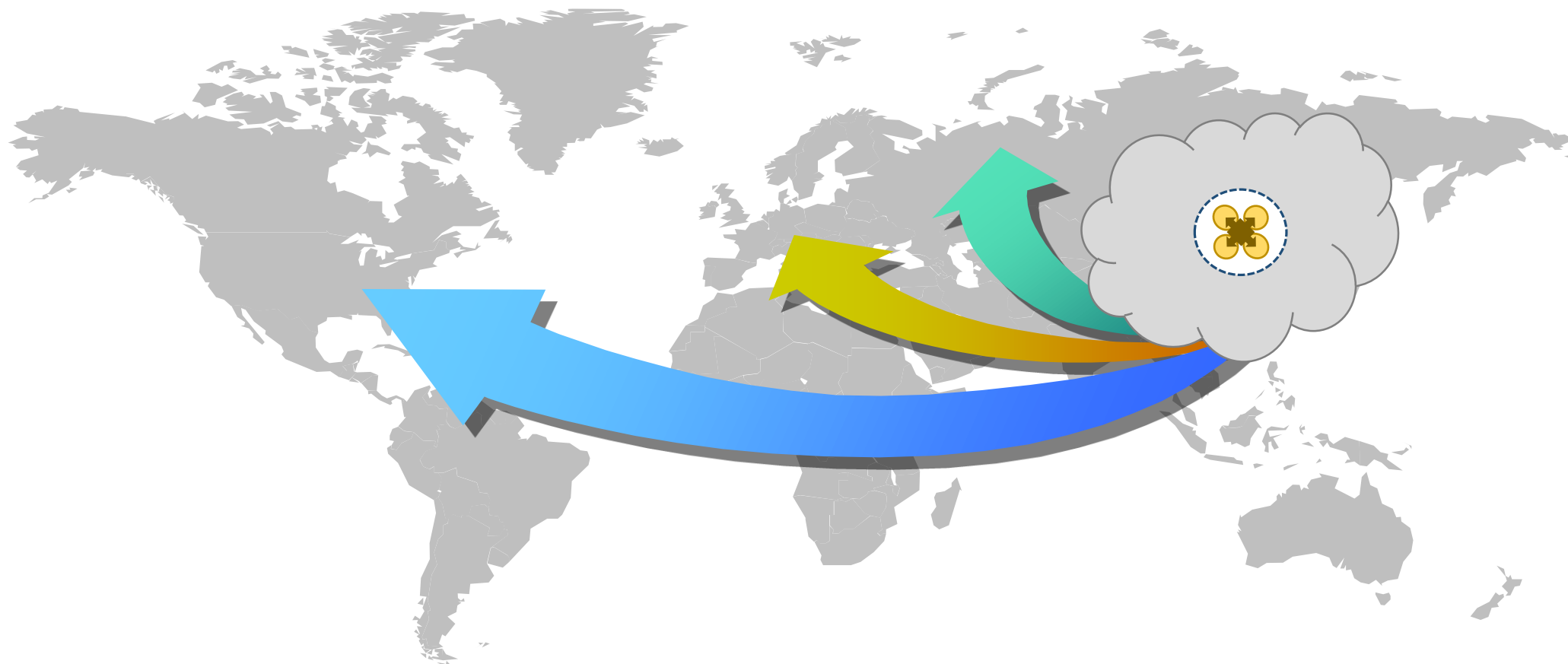
facebook



<https://www.facebook.com/groups/cloud.barista.community>



Hopefully, Cloud-Barista can contribute to  
the globalization of OSS and Cloud in CJK



# Thank you

<https://github.com/cloud-barista>

DONG-JAE, KANG

**Cloud-Barista Community**