欧米でも*Kubernetes*の技術動向、業界動向、そして標準化動向のアップデート

コンテナ技術動向

クリエーションライン（株）

CSO (Chief Strategy Officer)

鈴木いっぺい

2019／09／04

社名：クリエーションライン株式会社

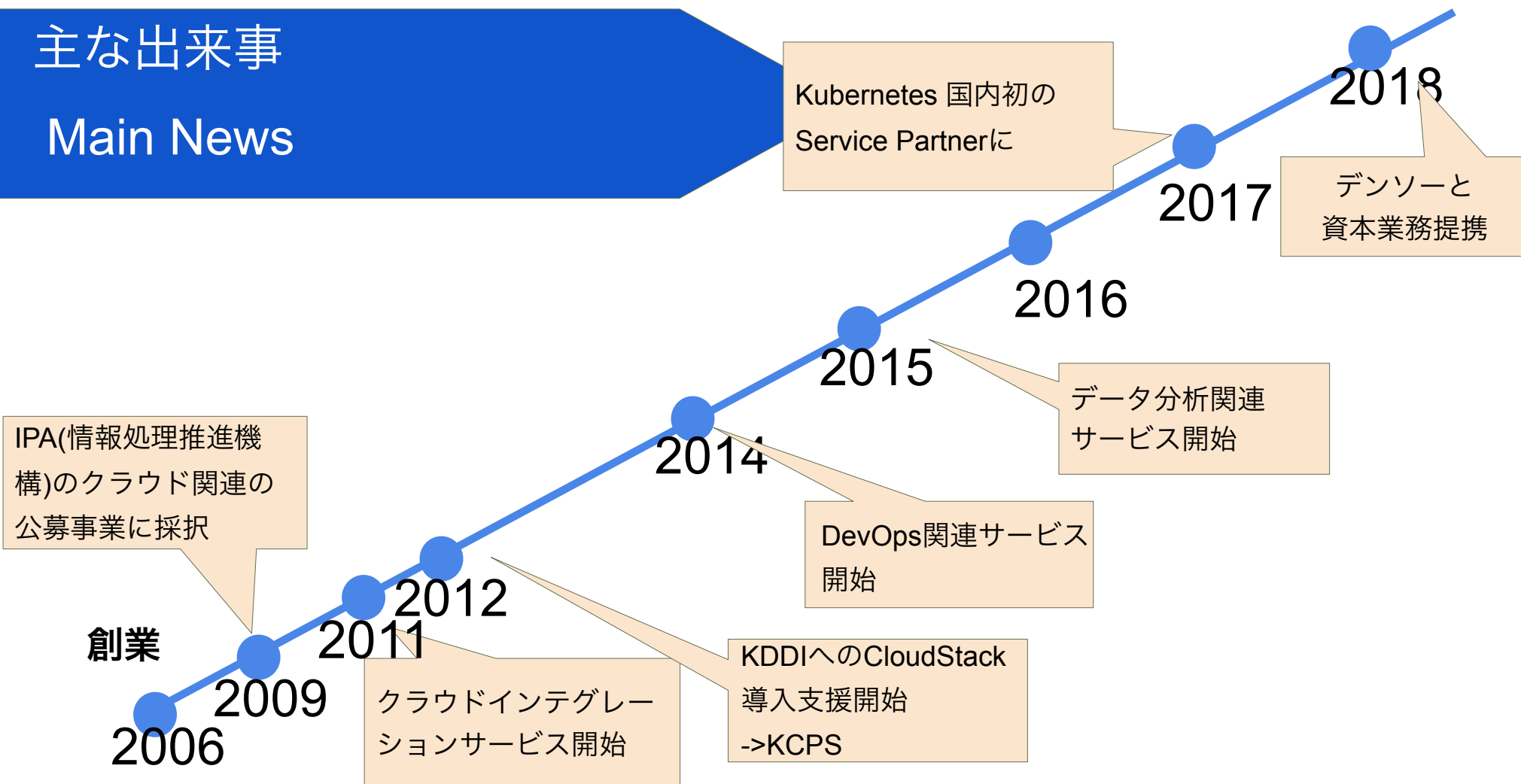代表：安田 忠弘
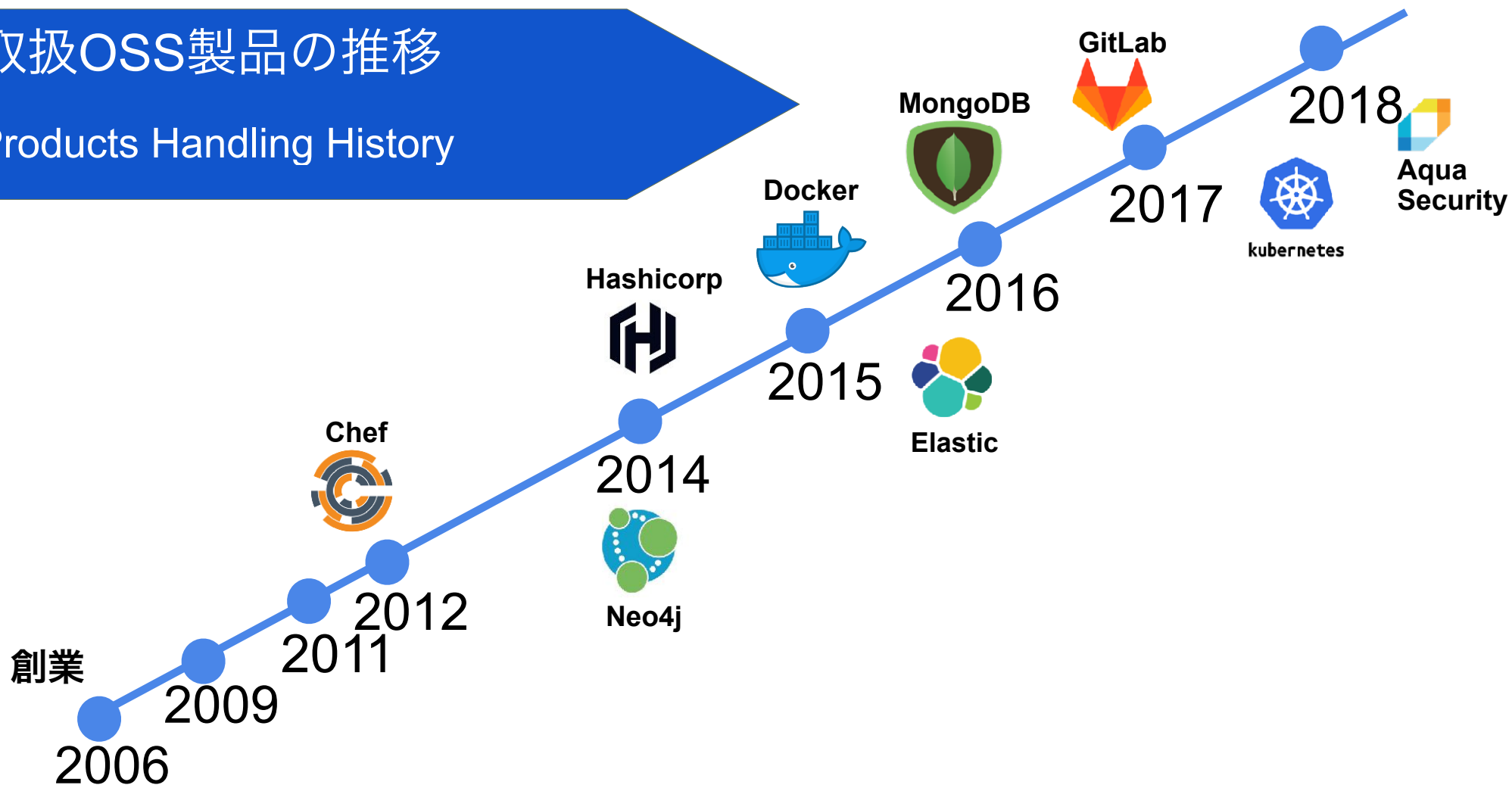
設立：2006年1月

資本金：215,572,000円（資本準備金を含む）

従業員数：130名（業務委託/契約社員含む）

主な出来事
Main News

2018

2017

2016

2015

2014

2012

2011

2009

2006

創業

Kubernetes 国内初の
Service Partnerに

デンソーと
資本業務提携

データ分析関連
サービス開始

DevOps関連サービス
開始

IPA(情報処理推進機
構)のクラウド関連の
公募事業に採択

クラウドインテグレー
ションサービス開始

KDDIへのCloudStack
導入支援開始
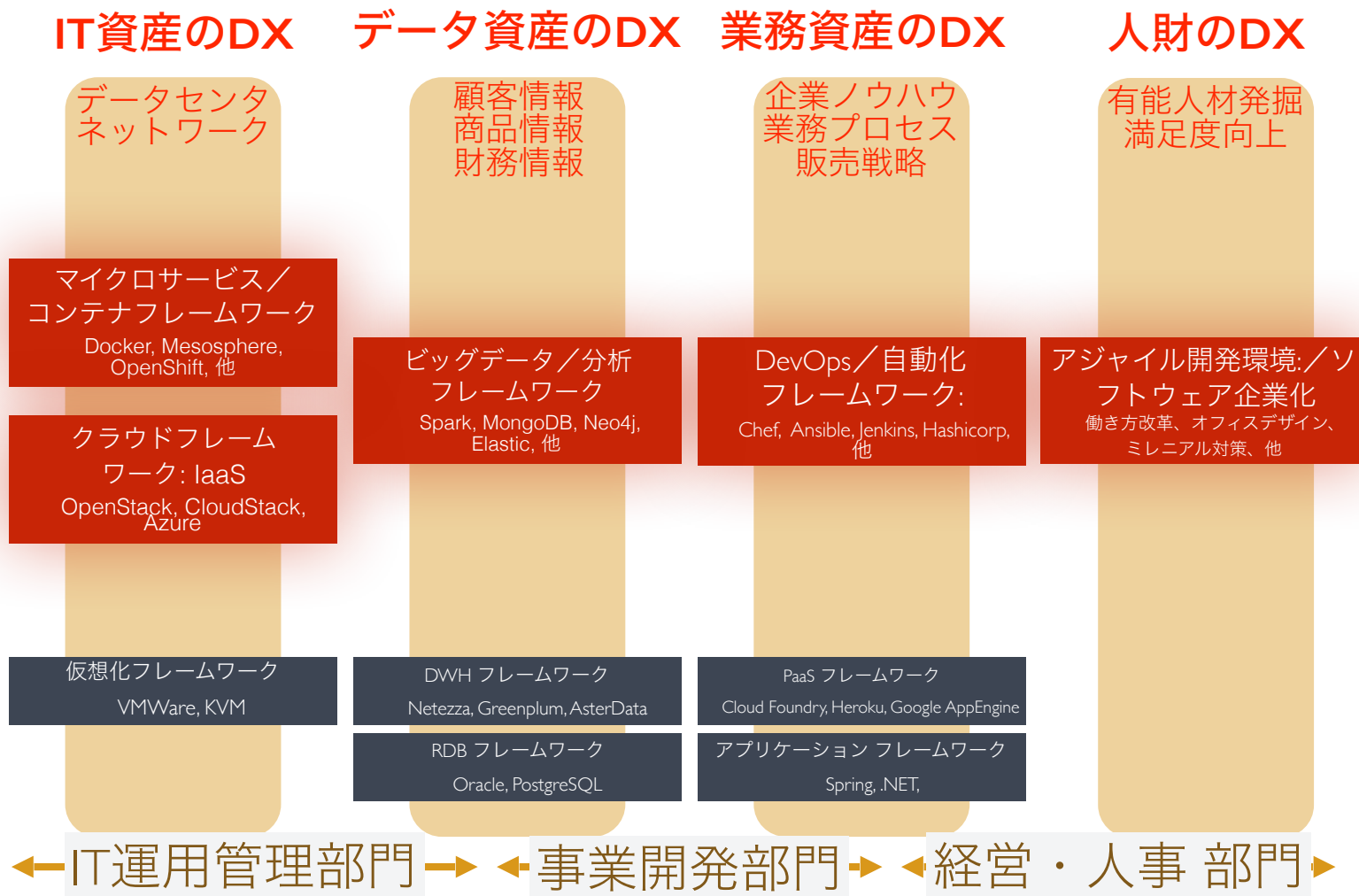->KCPS

取扱OSS製品の推移
Products Handling History

Only 1 in Japan

Kubernetes Certifcation

日本国内で唯一Kubernetes Certified Service ProviderとKubernetes Training Partner を所有する事業会社です。

クリエーションラインの取り組む、4つのDX戦略の柱

IT資産のDX　　**データ資産のDX**　　**業務資産のDX**　　**人財のDX**

データセンタ
ネットワーク

顧客情報
商品情報
財務情報

企業ノウハウ
業務プロセス
販売戦略

有能人材発掘
満足度向上

マイクロサービス／
コンテナフレームワーク
Docker, Mesosphere,
OpenShift, 他

クラウドフレーム
ワーク：IaaS
OpenStack, CloudStack,
Azure

ビッグデータ／分析
フレームワーク
Spark, MongoDB, Neo4j,
Elastic, 他

DevOps／自動化
フレームワーク:
Chef, Ansible, Jenkins, Hashicorp,
他

アジャイル開発環境:／ソ
フトウェア企業化
働き方改革、オフィスデザイン、
ミレニアル対策、他

仮想化フレームワーク
VMWare, KVM

DWH フレームワーク
Netezza, Greenplum, AsterData

PaaS フレームワーク
Cloud Foundry, Heroku, Google AppEngine

RDB フレームワーク
Oracle, PostgreSQL

アプリケーション フレームワーク
Spring, .NET,

← IT運用管理部門 →　← 事業開発部門 →　← 経営・人事 部門 →

変革はいつも底辺から崩れる

エンプラ志向を切り崩す
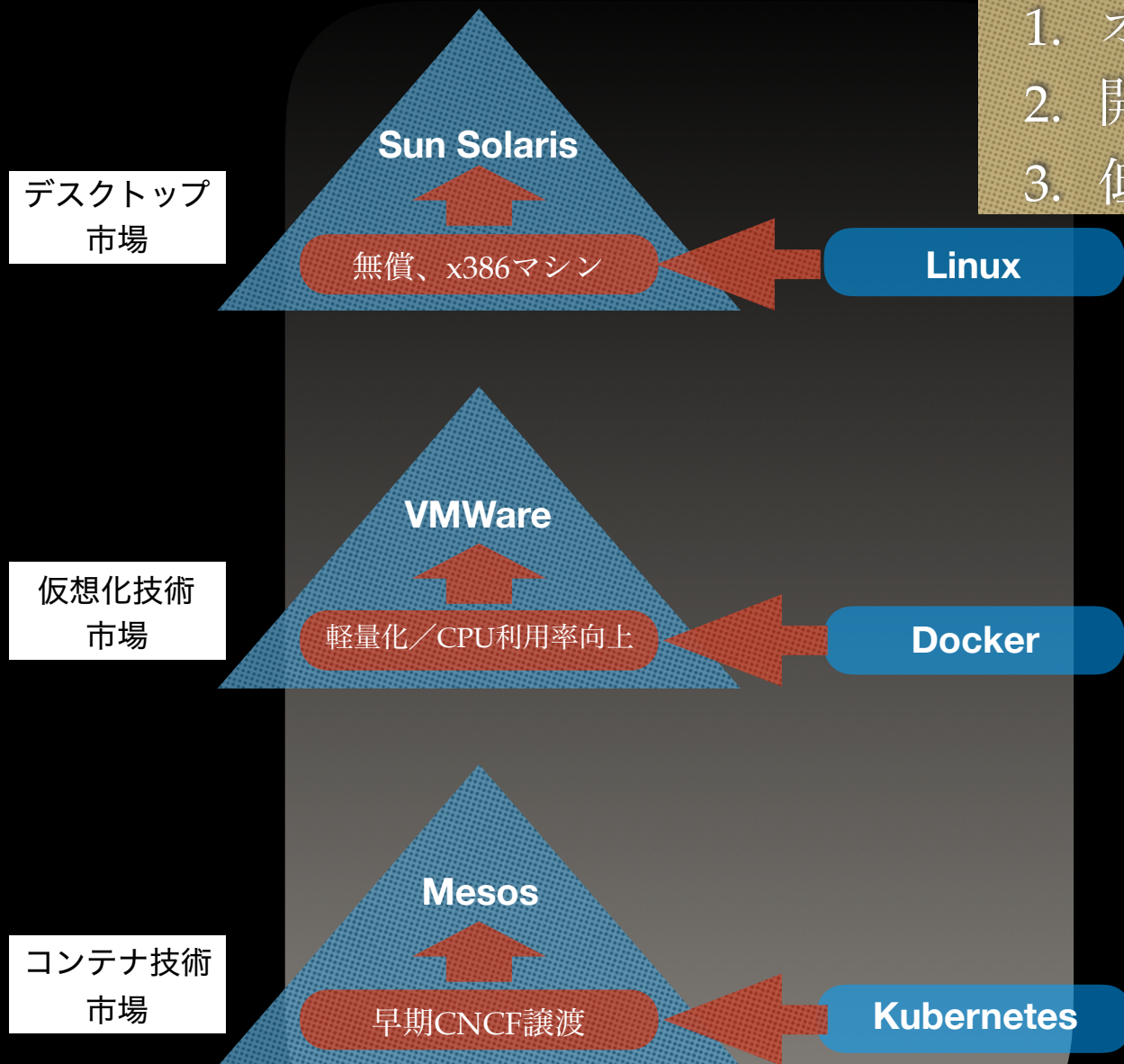
3つの基本法則
1. オープンソース
2. 開発者志向
3. 低価格

デスクトップ市場

Sun Solaris

無償、x386マシン ← Linux

最初からエンプラ狙い

$$$ ← HP-UX

Solaris

仮想化技術市場

VMWare

軽量化／CPU利用率向上 ← Docker

$$$ ← OpenStack

AWS

コンテナ技術市場

Mesos

早期CNCF譲渡 ← Kubernetes
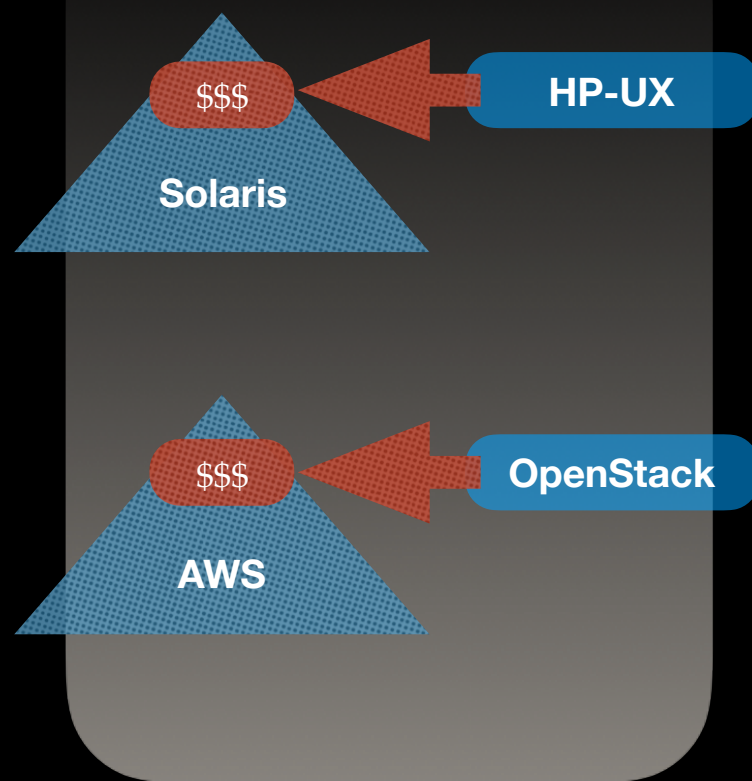
AMAZON EFFECT

AWS maintains 1/3 of all IaaS & PaaS market share

Estimates as of April 27th, 2018

- Azure 13%
- Others 48%
- GCP 6%
- AWS 33%
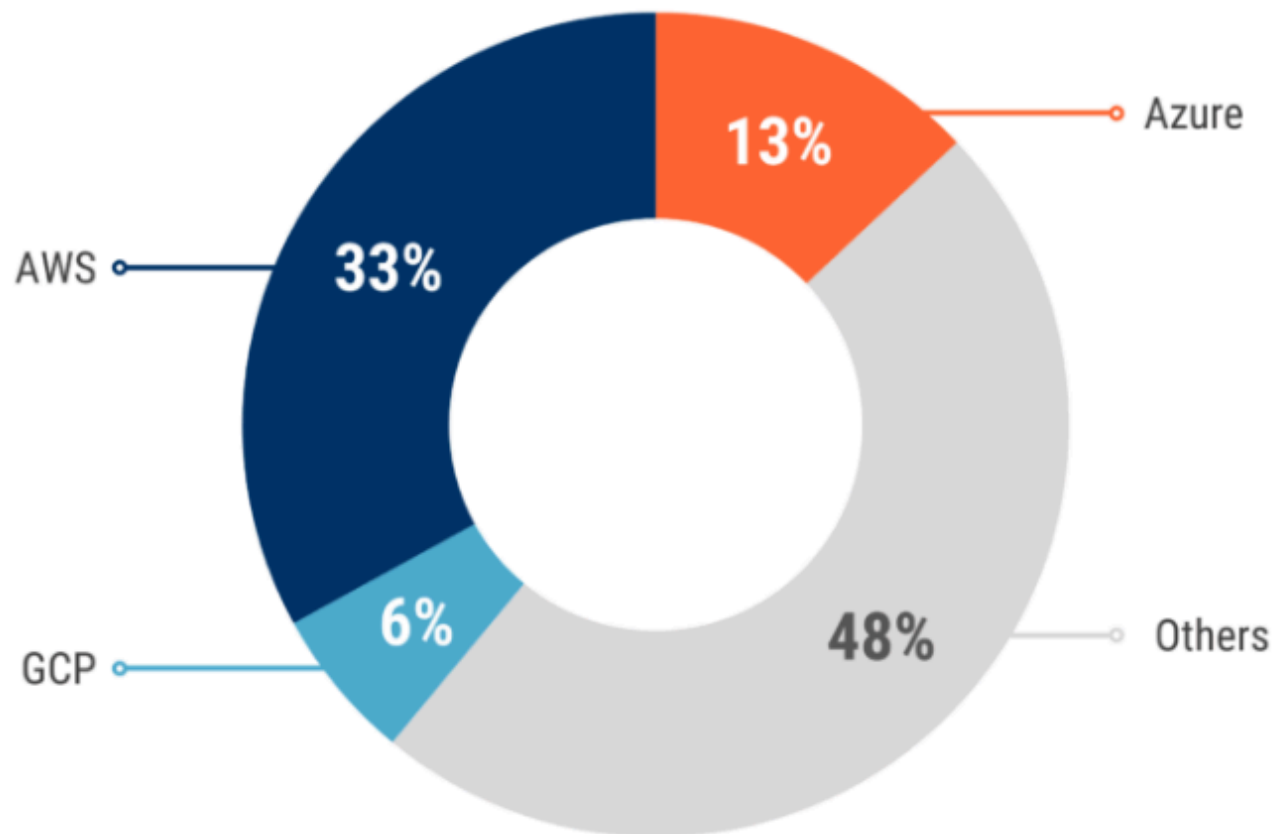
Source: Synergy Research

CBINSIGHTS

Gartner Hype Cycle

流行期
Peak of Inflated Expectations

安定期
Plateau of Productivity

回復期
Slope of Enlightenment

幻滅期
Trough of Disillusionment

黎明期
Innovation Trigger

期待

時間
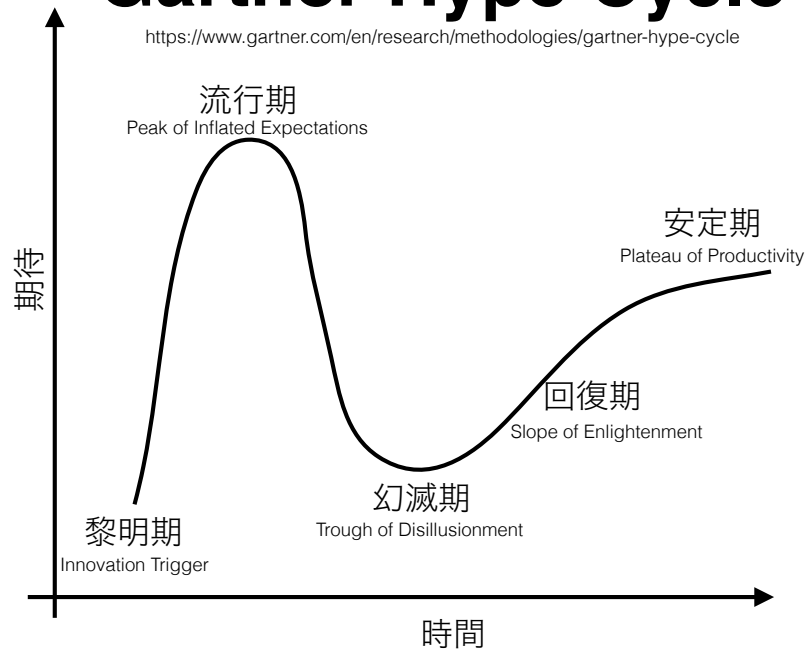
日本固有のHype Cycle

注：勝手な解釈で作成してます

Peak of Inflated Expectations
流行期

安定期
Plateau of Productivity

回復期
Slope of Enlightenment

幻滅期
Trough of Disillusionment

黎明期
Innovation Trigger

期待

時間

Gartner Hype Cycle

https://www.gartner.com/en/research/methodologies/gartner-hype-cycle

期待

流行期

Peak of Inflated Expectations

安定期

Plateau of Productivity

回復期

Slope of Enlightenment

幻滅期

Trough of Disillusionment

黎明期

Innovation Trigger
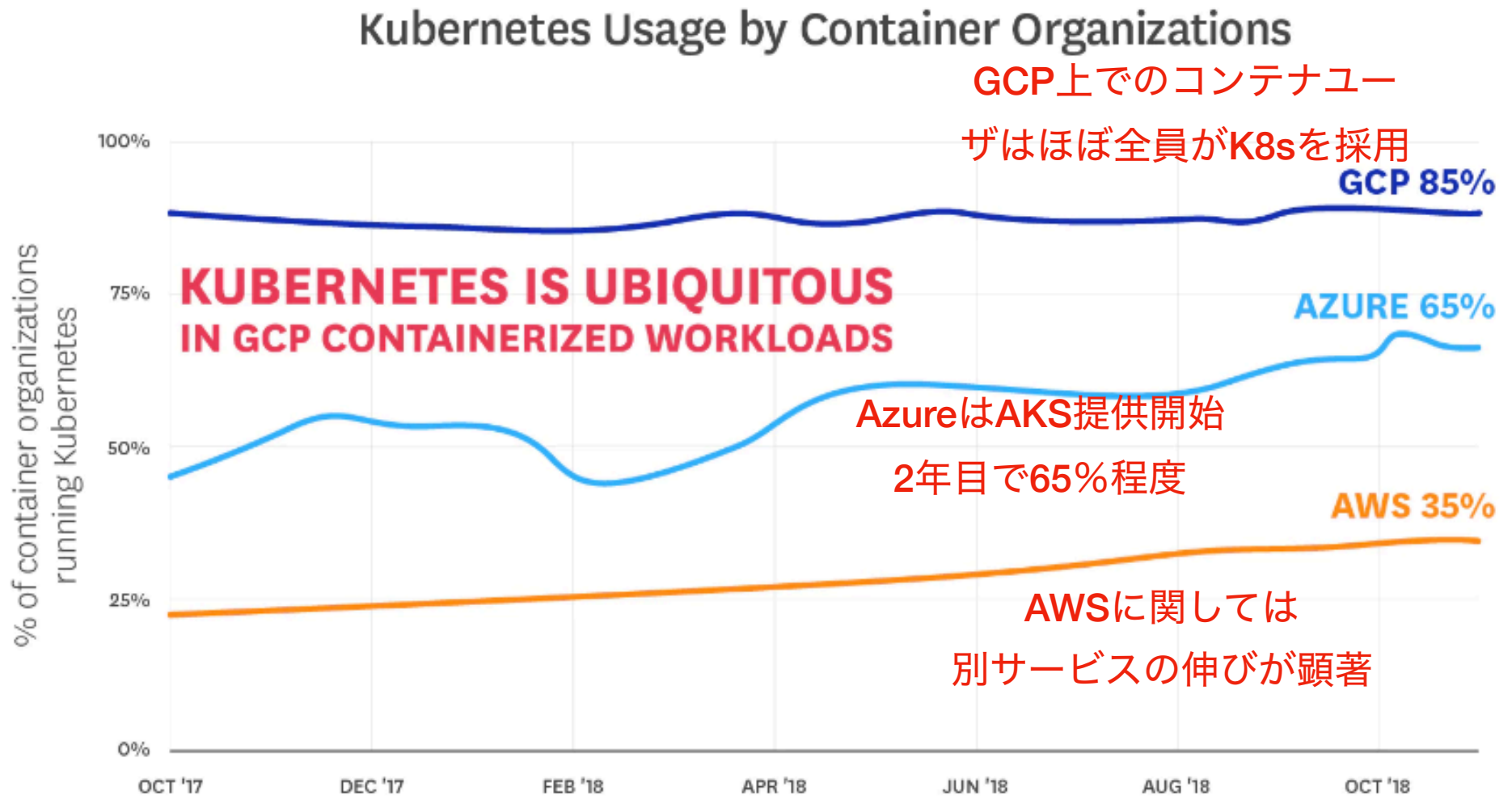
時間
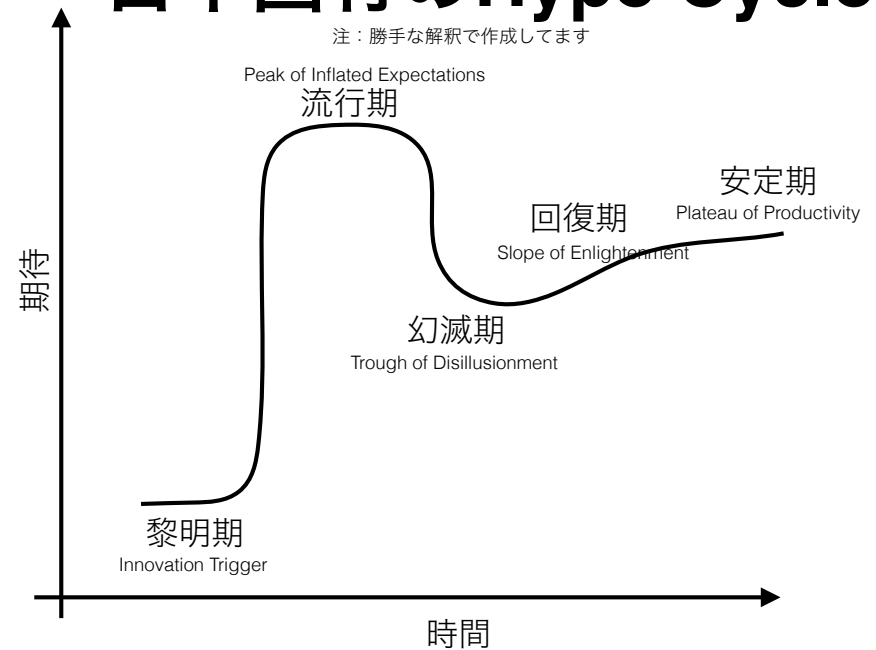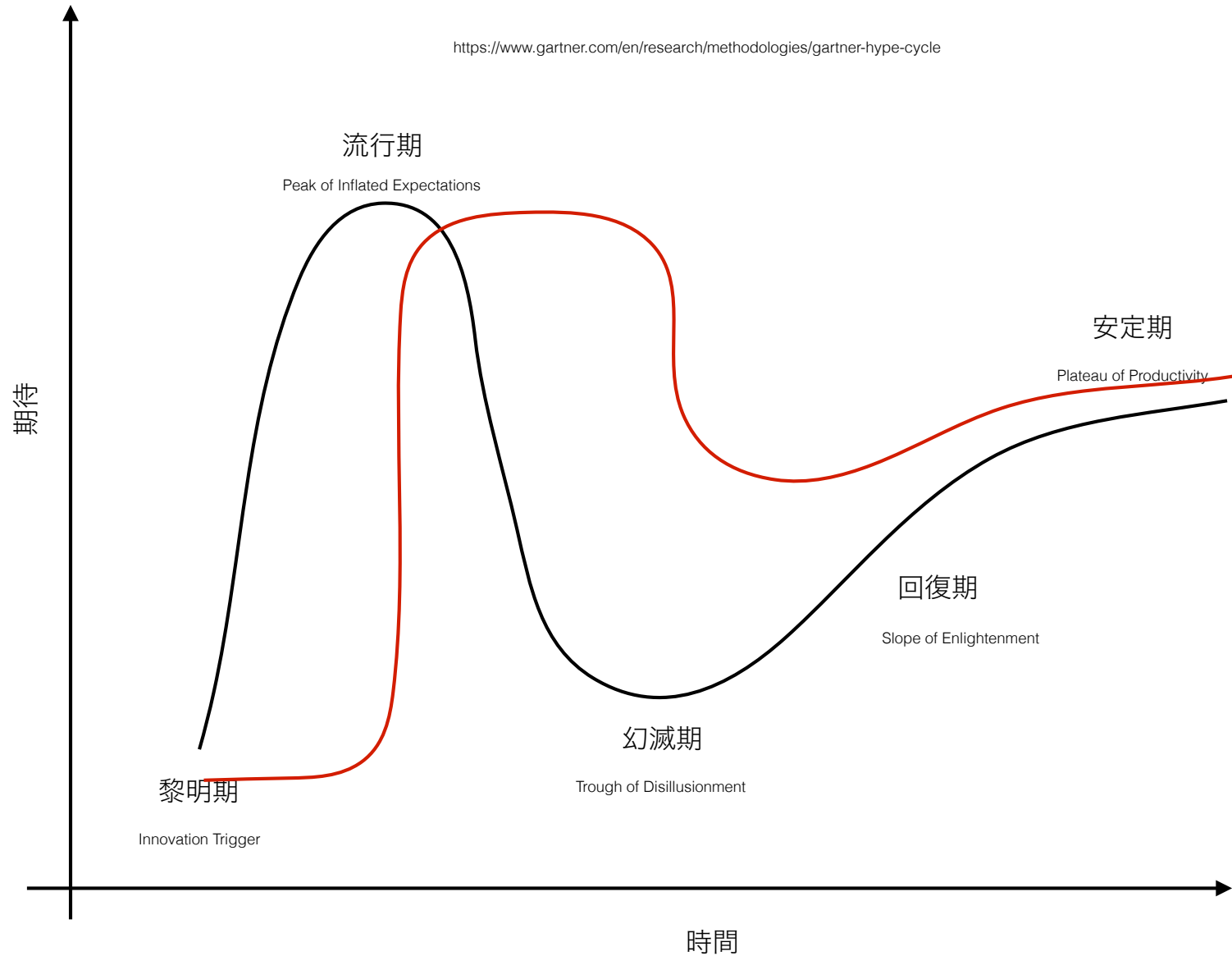
Datadog社による
コンテナ運用の実態調査

- Datadog社が提供する様々なインフラ／ミドルウェアを対象とした関しサービスから収集したデータを集計、分析、業界でのコンテナ技術の動向をまとめる

- 対象となるのは、数千社の企業、5億個以上のコンテナ

- 対象企業はスタートアップからFortune1000系企業にわたるが、いずれもソフトウェアへの投資は顕著で、パブリッククラウドの導入も比較的進んでいる企業

KubernetesはGCPとAKSのコンテナユーザの大部分のオーケストレーション機能として採用される

Kubernetes Usage by Container Organizations

GCP上でのコンテナユーザはほぼ全員がK8sを採用

GCP 85%

KUBERNETES IS UBIQUITOUS
IN GCP CONTAINERIZED WORKLOADS

AZURE 65%

AzureはAKS提供開始
2年目で65％程度

AWS 35%

AWSに関しては
別サービスの伸びが顕著

Source: Datadog

Kubernetes利用者は グローバルに着実に増加中

Kubernetes Share Among Container Organizations

Datadog全ユーザでの
K8sの利用は急拡大

KUBERNETES ADOPTION IS GROWING FAST

10-POINT INCREASE

% of container organizations running Kubernetes

40%
30%
20%
10%
0

OCT '17   DEC '17   FEB '18   APR '18   JUN '18   AUG '18   OCT '18
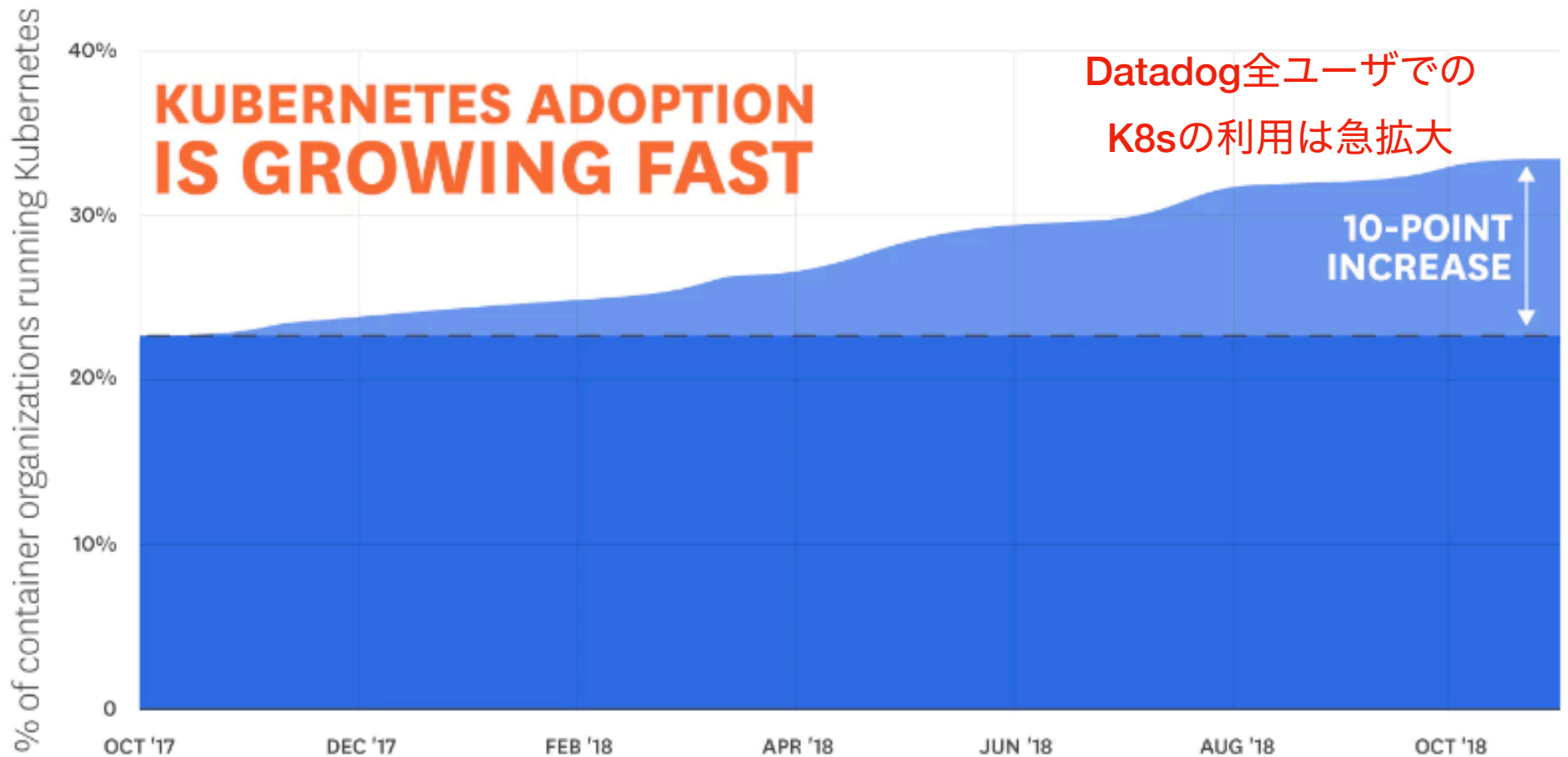
Source: Datadog

AWSにおいて、ECSとはわずかにKubernetes利用者より多い状況

Share of AWS Container Environments

AWSではECS/Fargateの利用が若干多い

ECS/FARGATE 37%

KUBERNETES 35%

K8sの利用度の伸びはEKSによる利用が大きく寄与

ECS & FARGATE EDGE OUT KUBERNETES IN AWS
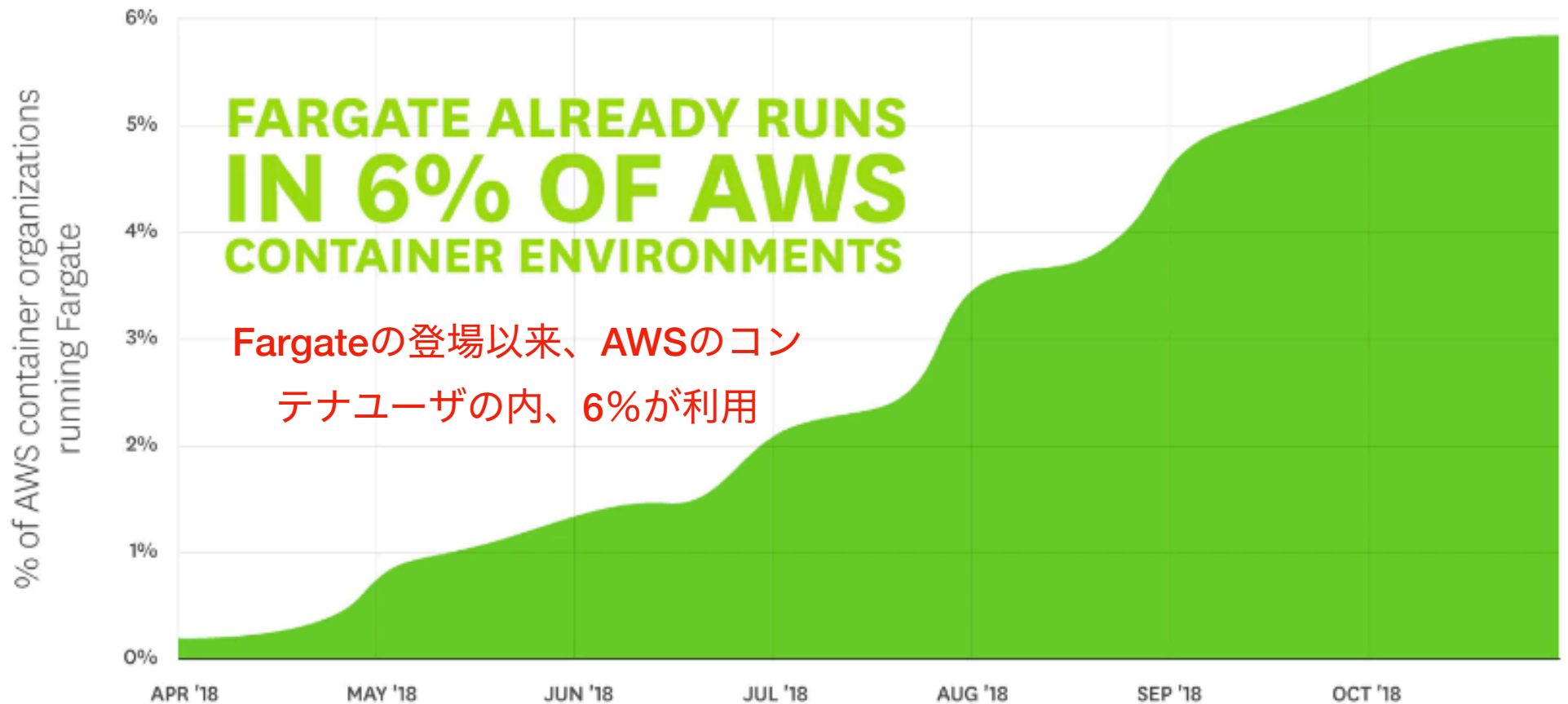
Source: Datadog
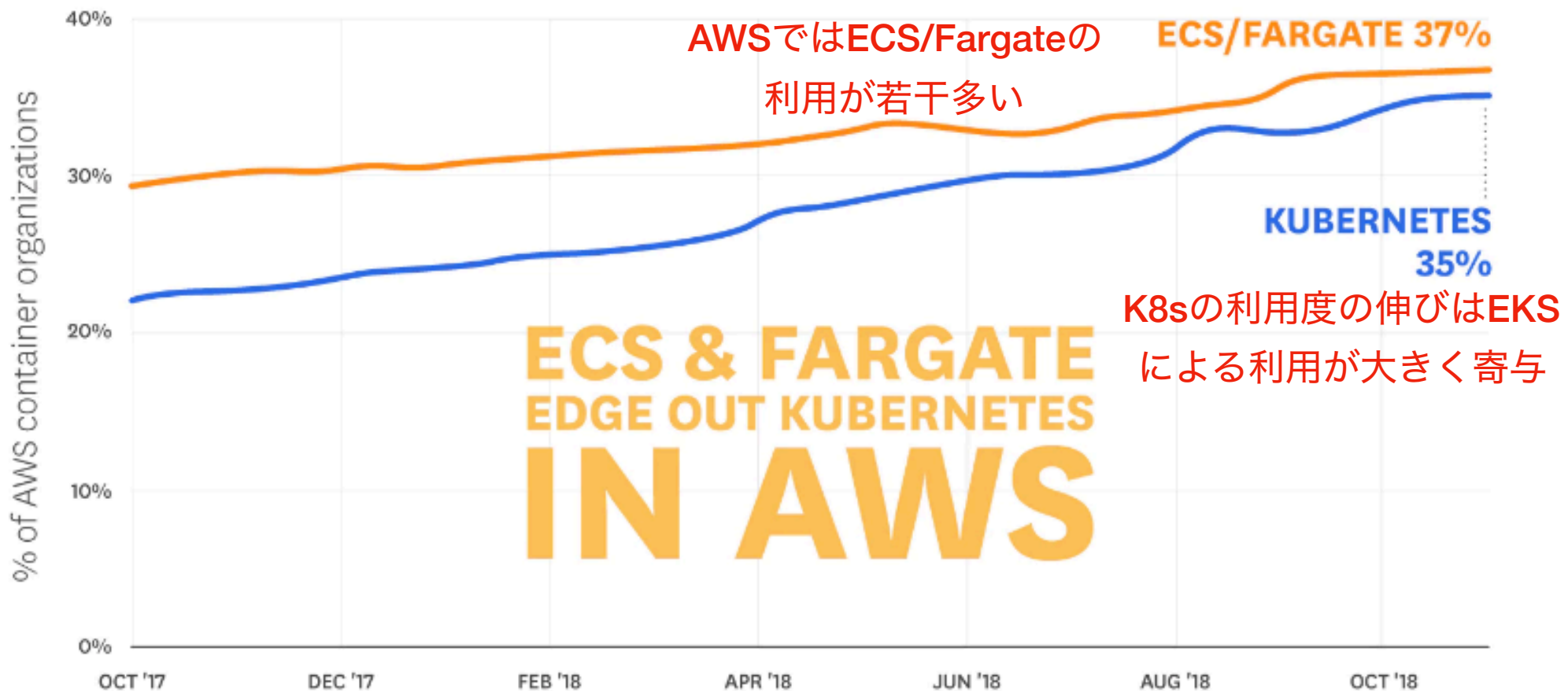
この調査の面白いところ

- 実ユーザの承認をほぼ得ずとも、**精度の高い**、実態調査を広範囲に収集可能

- クラウド上での市場全体のかなり詳細な利用実態、特に**ベストプラクティス**を知ることができる

- クラウドサービスもこの利用実態に基づいて、的確に**サービスの品質向上**を**標準的**、かつ**迅速に**提供可能
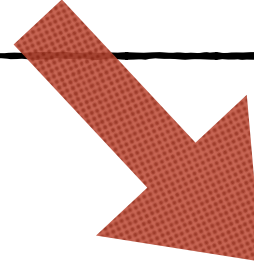
オンプレミスではもはや不可能

FargateはすでにAWSのコンテナ環境の6% で利用されている

Fargate Share Among AWS Container Organizations

FARGATE ALREADY RUNS IN 6% OF AWS CONTAINER ENVIRONMENTS

Fargateの登場以来、AWSのコンテナユーザの内、6%が利用

コンテナ導入の初期からオーケストレーションを採用するユーザが増加中

Orchestration Usage at Initial Container Rollout

40% OF ORGANIZATIONS ORCHESTRATE CONTAINERS FROM THE START

コンテナ導入当初からK8sもしくはECSを採用するユーザが4割以上

Source: Datadog
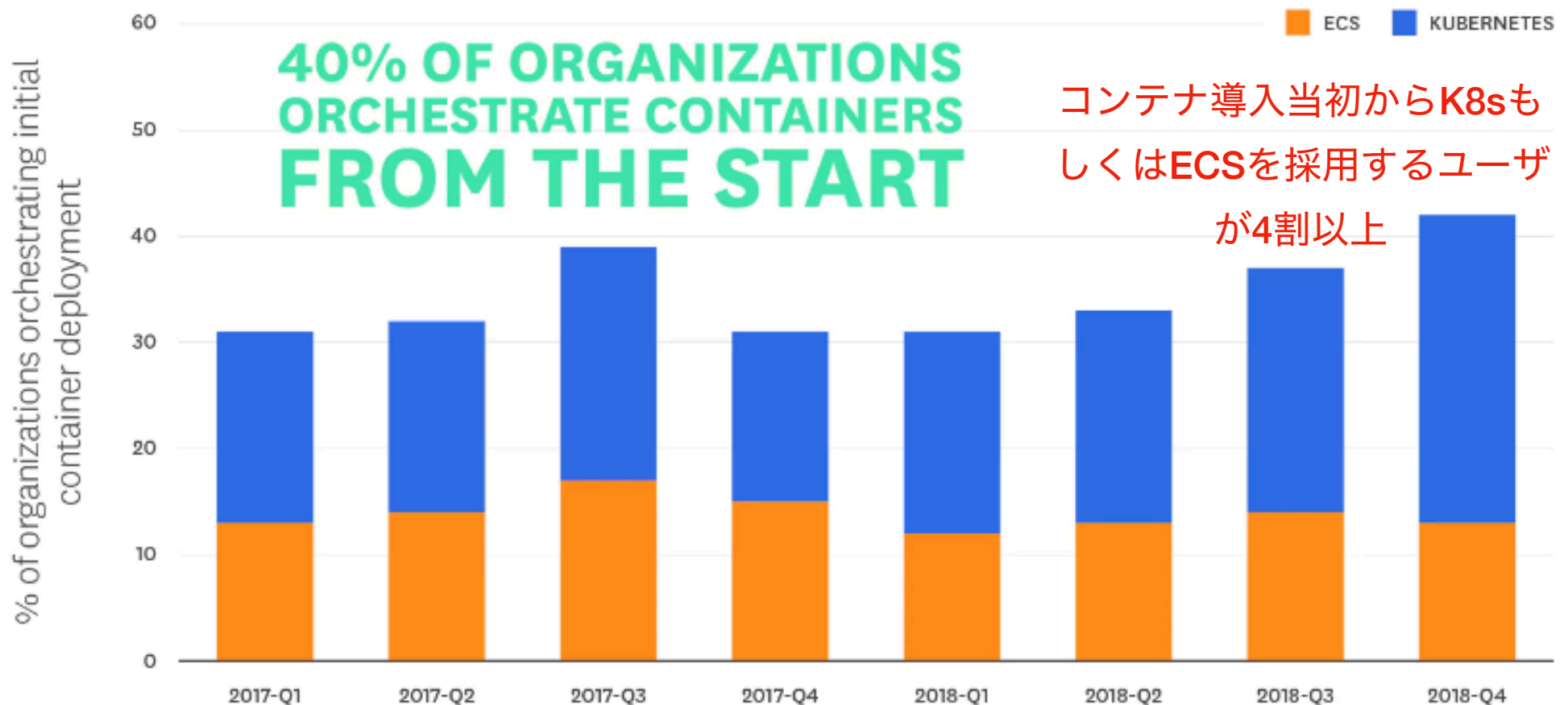
Kubernetesで最も使われるイメージはNGINXで、追随するデータベースエンジンを大きく引き離す

Common Container Images by Orchestrator

コンテナイメージは、
データベースが非常時に多い

ECSだけは、データベース利用は
RDS, SQS等が多いと思われる

また、NGINXが極端に多い

Source: Datadog
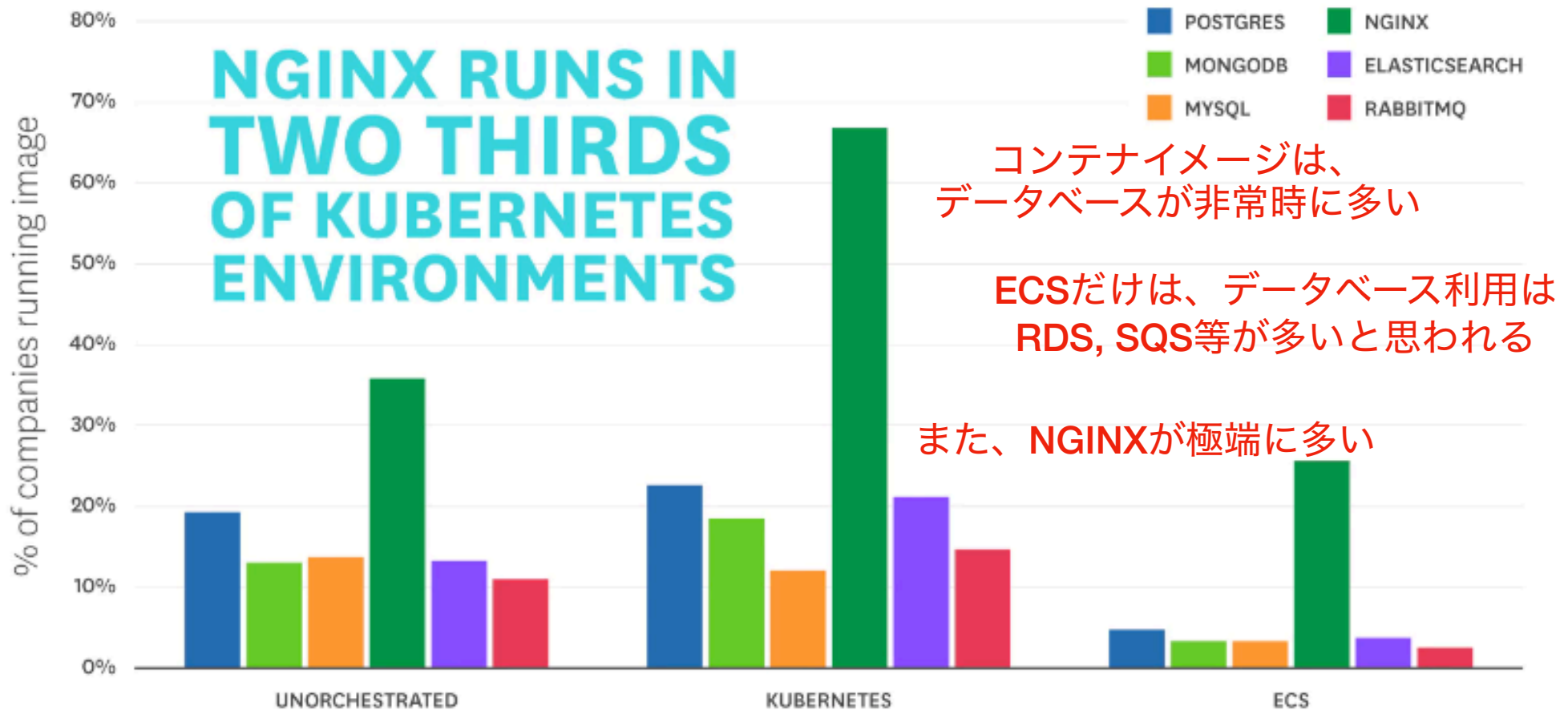
Kubernetesコンテナの大部分はシングルプロセス
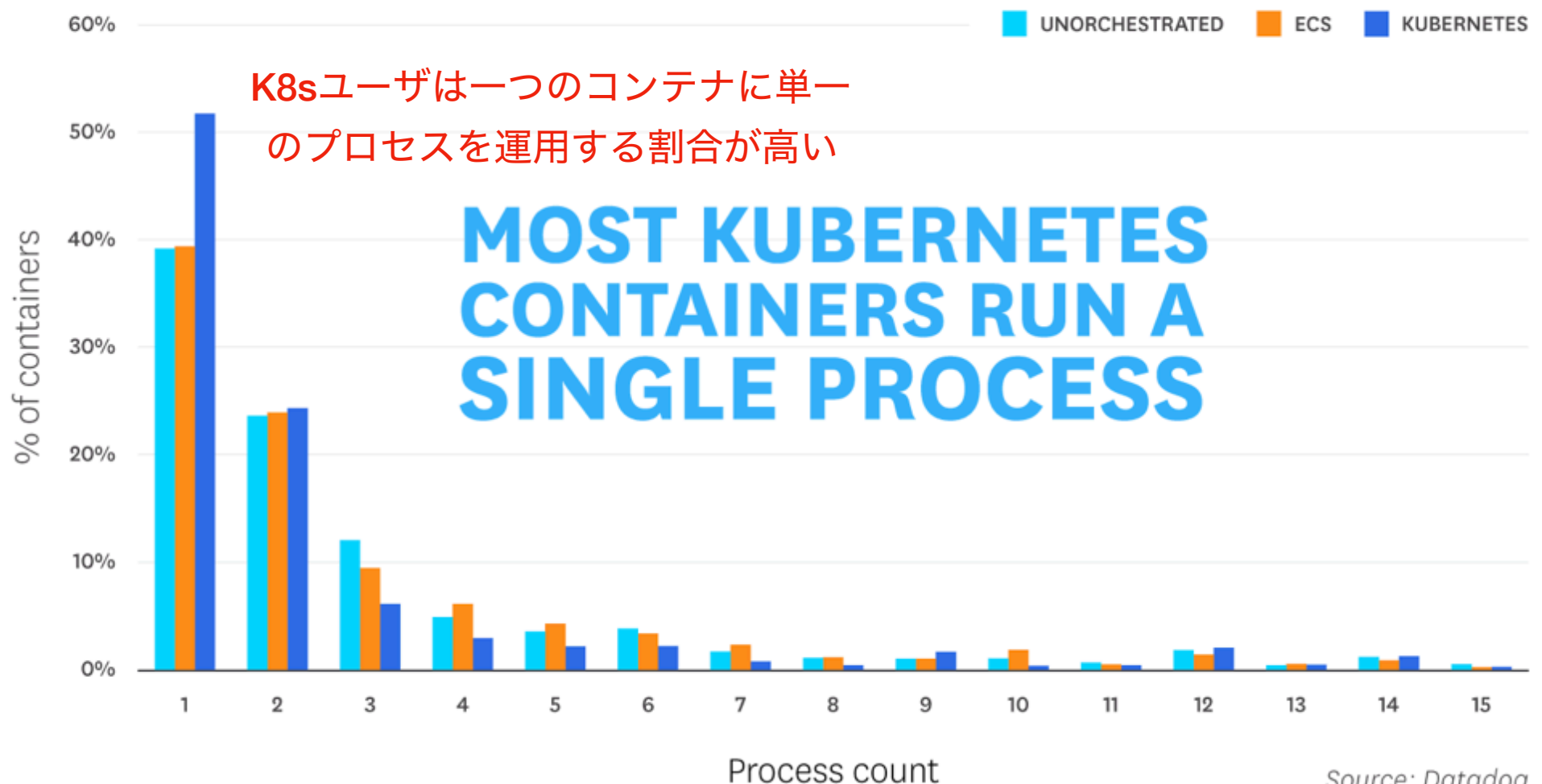
Kubernetes上のホストはECS上のホストより倍の数のコンテナを保有

K8sクラスターはECSの倍以上のコンテナをホスト上で運用

Containers per Host

KUBERNETES HAS TWICE THE CONTAINER DENSITY OF ECS

Average container count per host

Source: Datadog
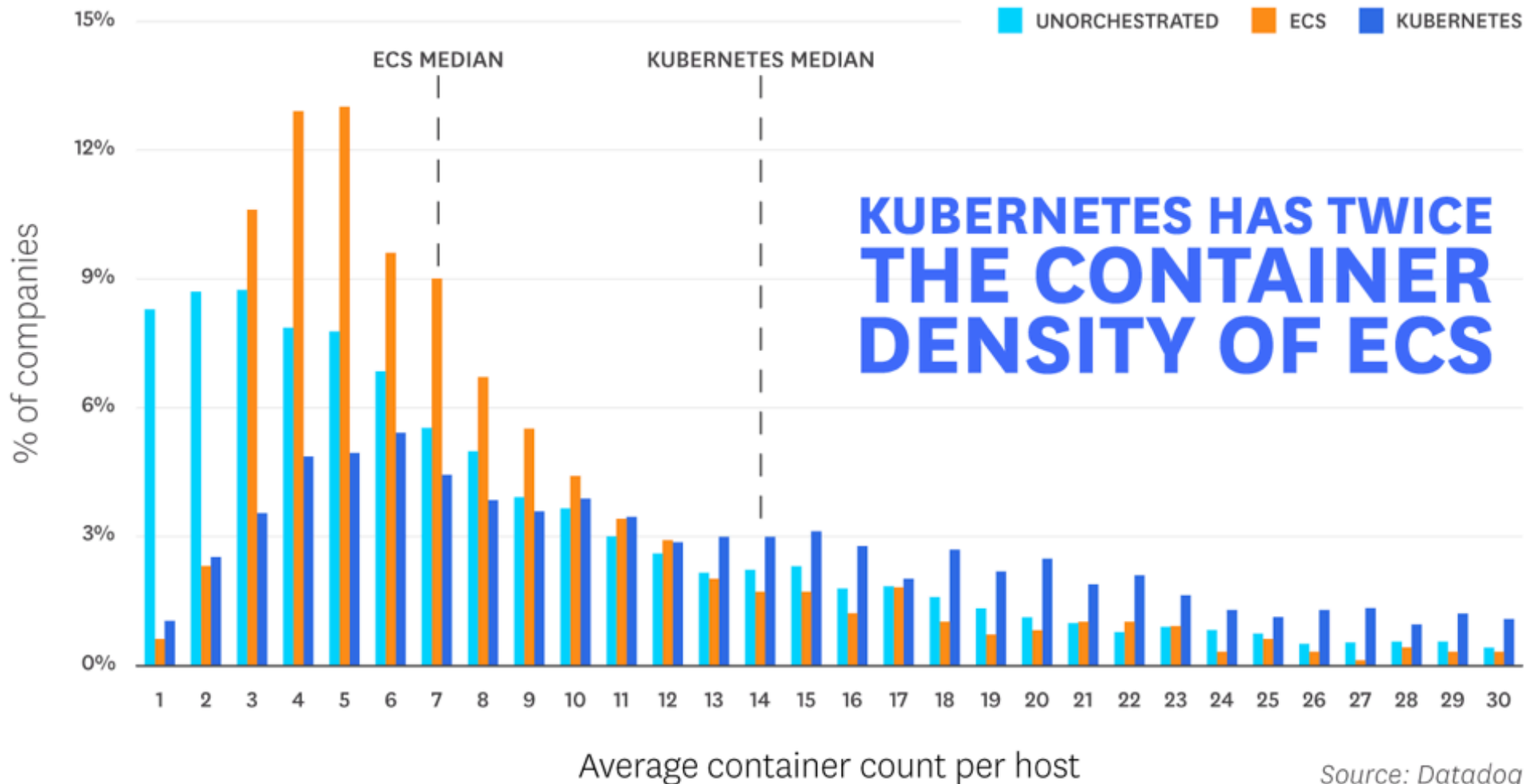
DockerCon 2019のセッション 要約全体から抽出したFoamTree図
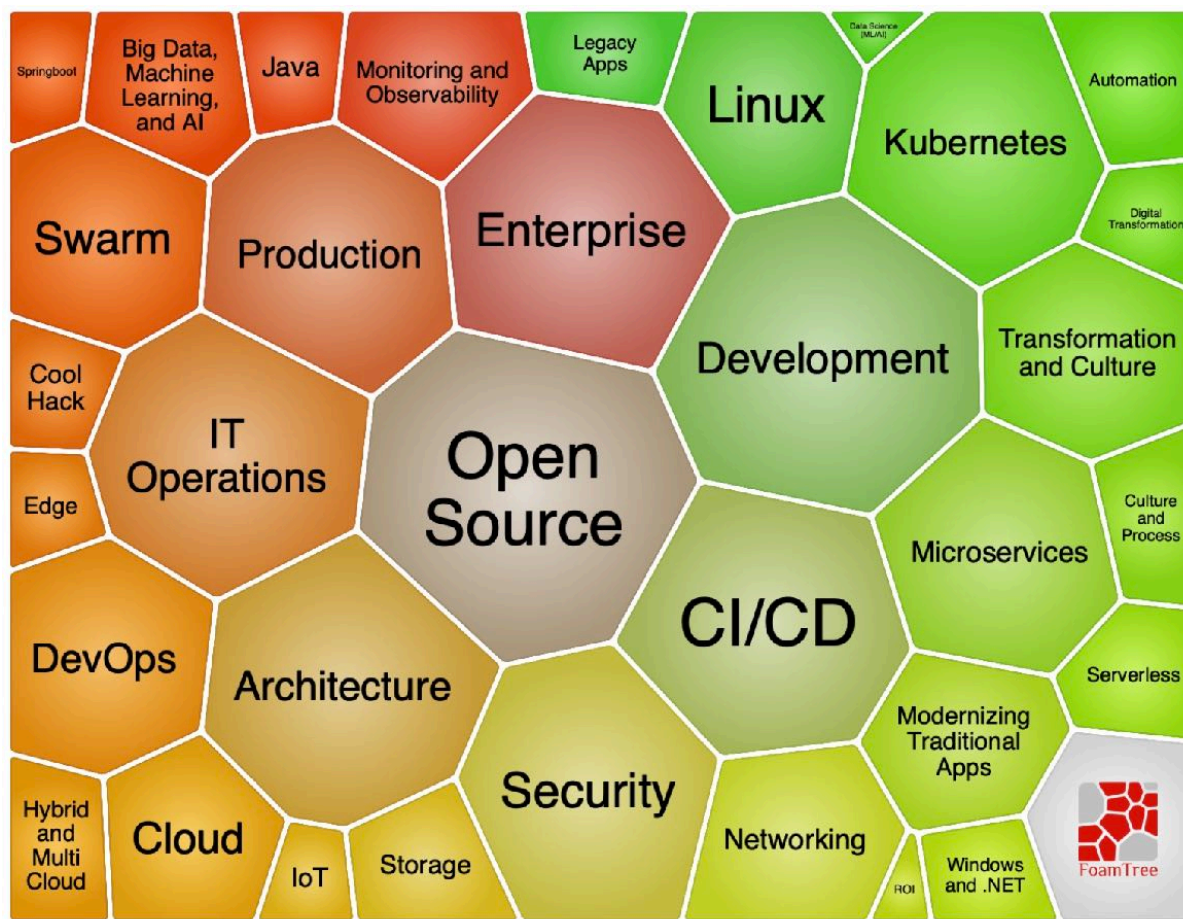
- 明らかに開発者が中心の世界
- OS/クラウドレイヤー固有の話題がほとんど無い。
- ハイブリッドクラウドの話題も弱い
- Open Sourceを中核の話題とするセッションが多く、それを構成するキーワードのバランスがまぁまぁ良い（CI/CD, Security, IT Operations, etc…）
- SwarmとK8sが未だ同格の扱い（2018年はK8s一色だったのに。。）
  - Citizens Bankの事例ではSwarmに戻った経験を紹介
- あれだけ強く打ち出してたMTAの話題が弱くなってる

containerd：Docker開発のランタイムエンジンとしてdefactoのポジションに

- CNCFから「卒業」
- グローバル企業の5割がコンテナ技術をプロダクション環境で使う、と宣言している。
- ソフトウェア開発の標準技術としてコンテナはその地位を確立

By 2020, more than

50%

of global organizations will
be running containers in production

Usage Among Adopters

DOCKER DEPLOYMENT SIZE
HAS INCREASED 75%
IN ONE YEAR

Container adoption and workload increasing

Dockerの利用実績

Dockerの普及を示す数字

44.1M	1.7M	5.6M	105.2B
Docker Engineの のべ数	Docker Desktop 開発者の 毎月の増加数	アプリケーション の数	コンテナイメージ のプル数

エンタプライズ企業の84%はマルチクラウド戦略を持っている

Enterprise Cloud Strategy

1000+ Employees

マルチクラウドの大部分はハイブリッド（パブリックとプライベートの混合）環境

Single public 10%

Single private 3%

No plans 3%

Multi-Cloud 84%

9% Multiple private

17% Multiple public

58% Hybrid cloud

Source: RightScale 2019 State of the Cloud Report from Flexera
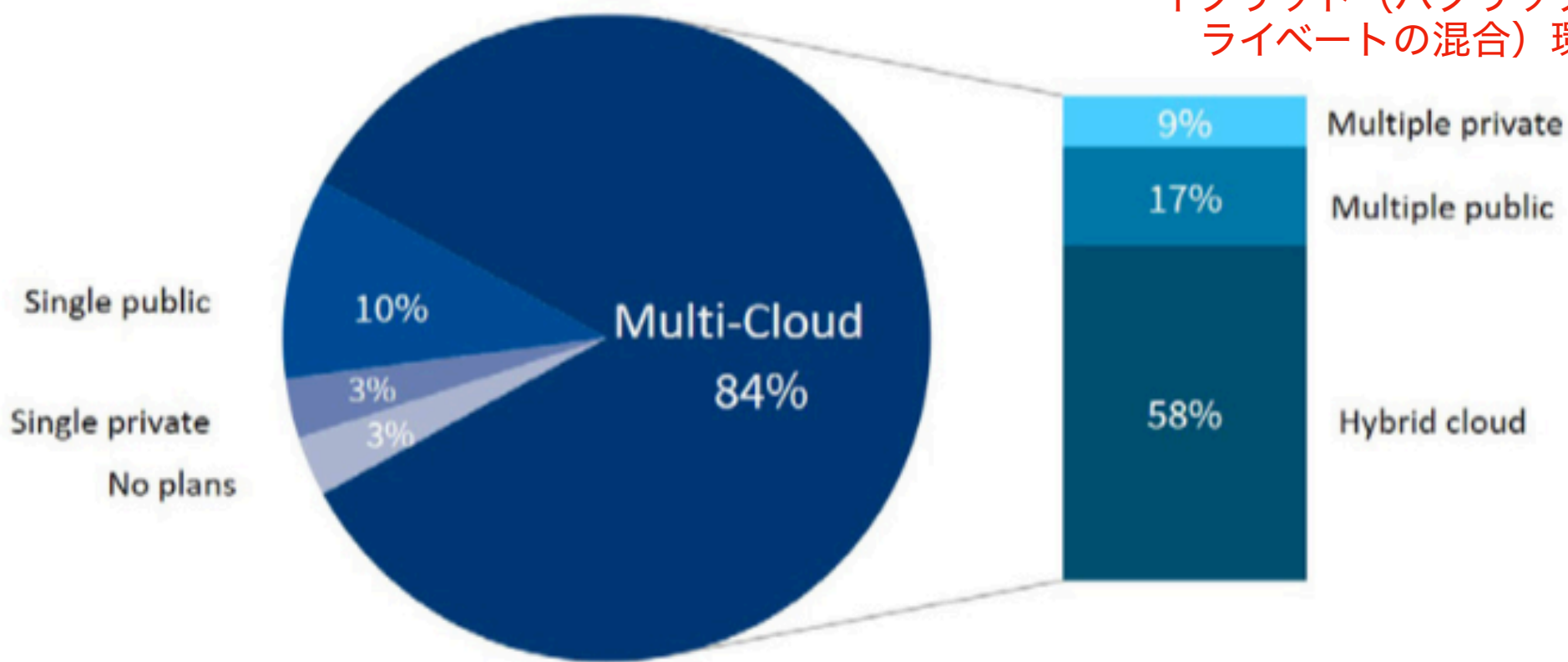
回答者の94％はクラウド利用

94% of Respondents Using Cloud

もはや、クラウドを利用しない企業はいない、と言える

Public Cloud Only　22%　69% Hybrid　3%　Private Cloud Only

Public = 91%　Private = 72%
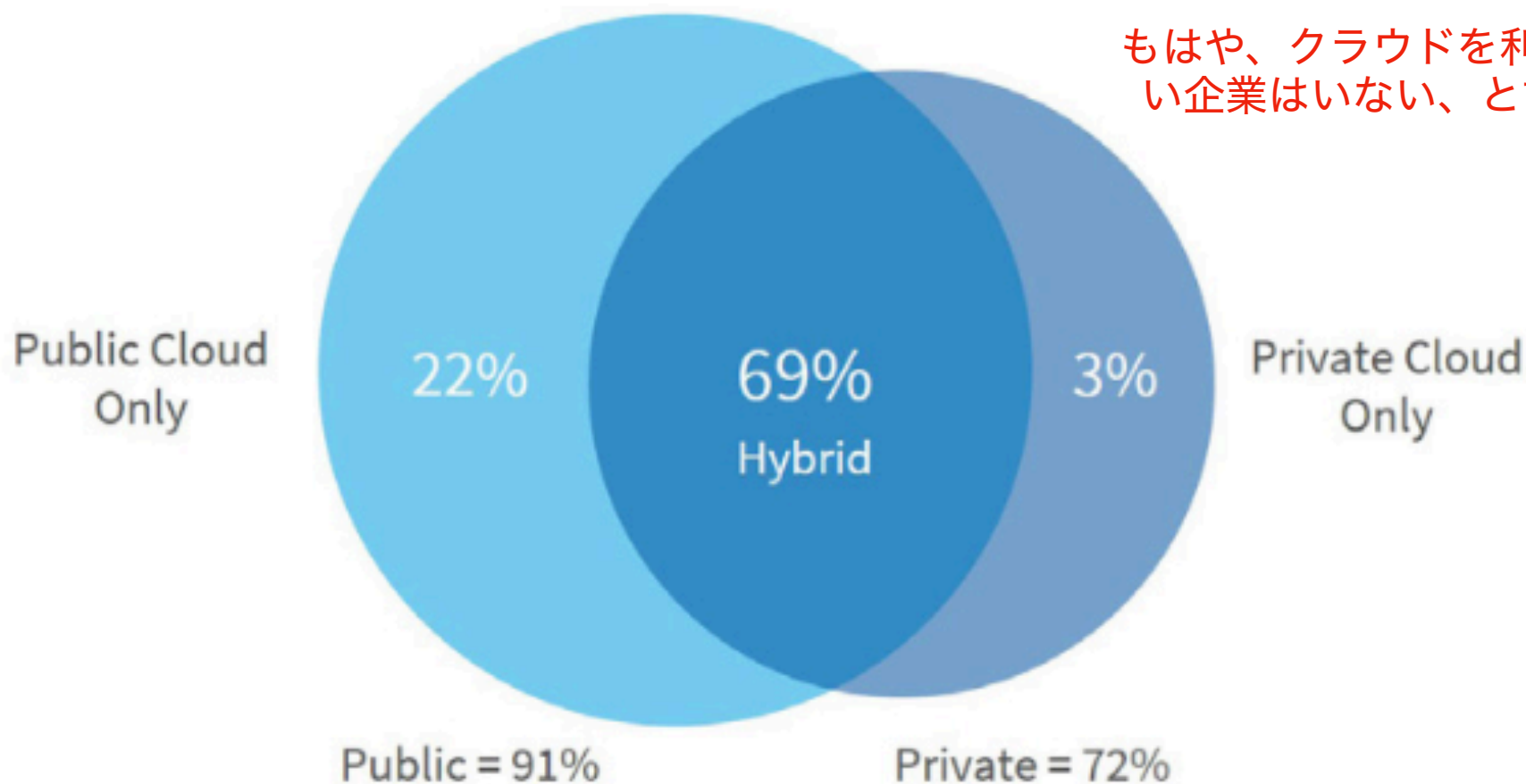
Source: RightScale 2019 State of the Cloud Report from Flexe

パブリック／プライベートの内訳

Workloads in Cloud

All respondents

- Non-Cloud 21%
- Public Cloud 38%
- Private Cloud 41%

企業の業務はパブリック／プライベートと比率よく分散している

Source: RightScale 2019 State of the Cloud Report from Flexera

コンテナ利用は広範囲に、Kubernetesも急上昇 (1)

Docker, Kubernetesのユーザ
はかなり浸透

OpenShiftはこれから伸びていく

Container Tools Used
% of All Respondents

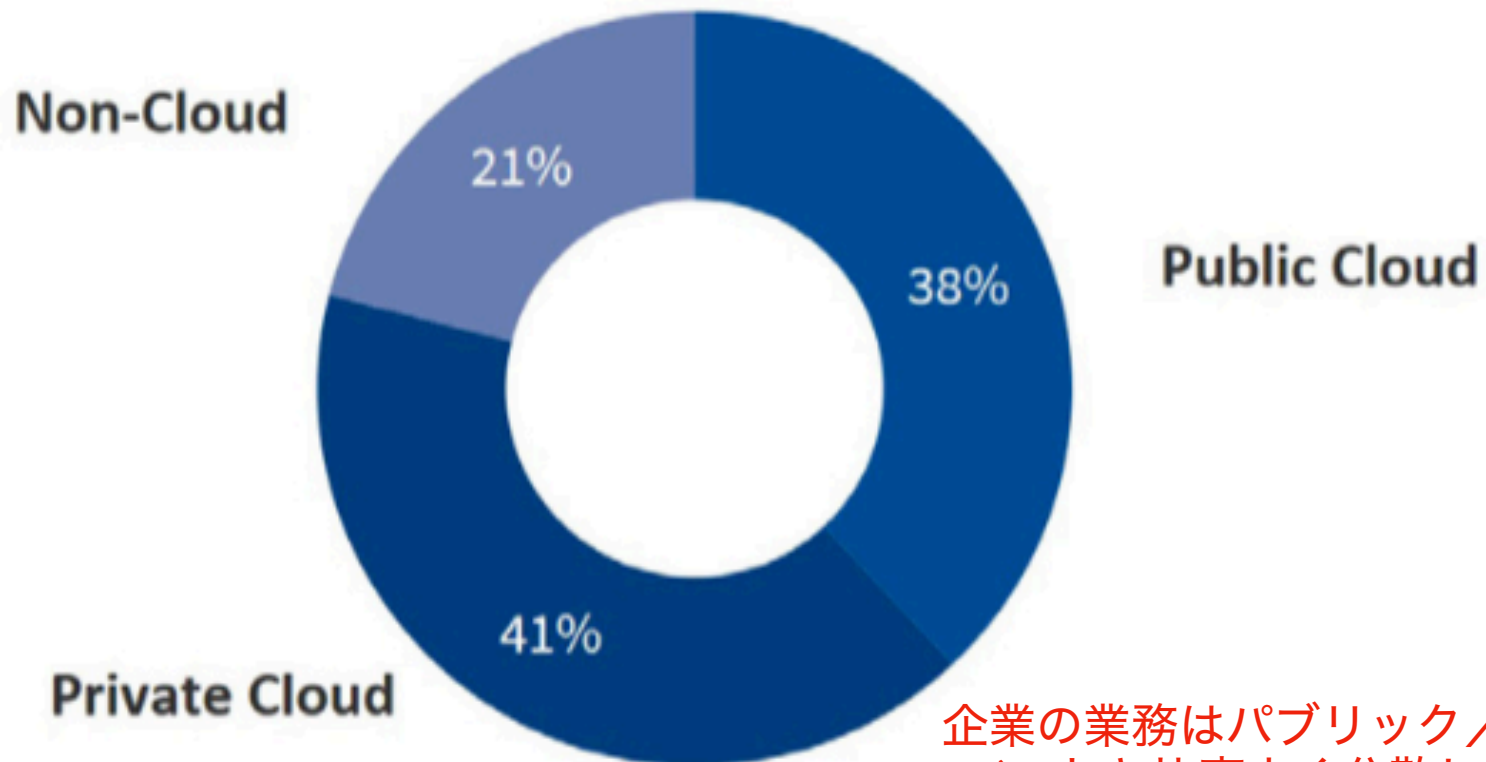|	Currently use	Plan to use
Docker	57%	21%
Kubernetes	48%	27%
AWS ECS/EKS	44%	26%
Azure Container Service	28%	27%
Docker Enterprise	27%	22%
RedHat OpenShift	24%	19%
Docker Swarm	21%	22%
Google Container Engine (GKE)	15%	23%
Pivotal Cloud Foundry	13%	15%
Mesosphere	10%	10%
Rancher	9%	15%

Source: RightScale 2019 State of the Cloud Report from Flexera

コンテナ利用は広範囲に、Kubernetesも急上昇 (2)

Container Tools Used
% of All Respondents

Kubernetesの伸びが顕著

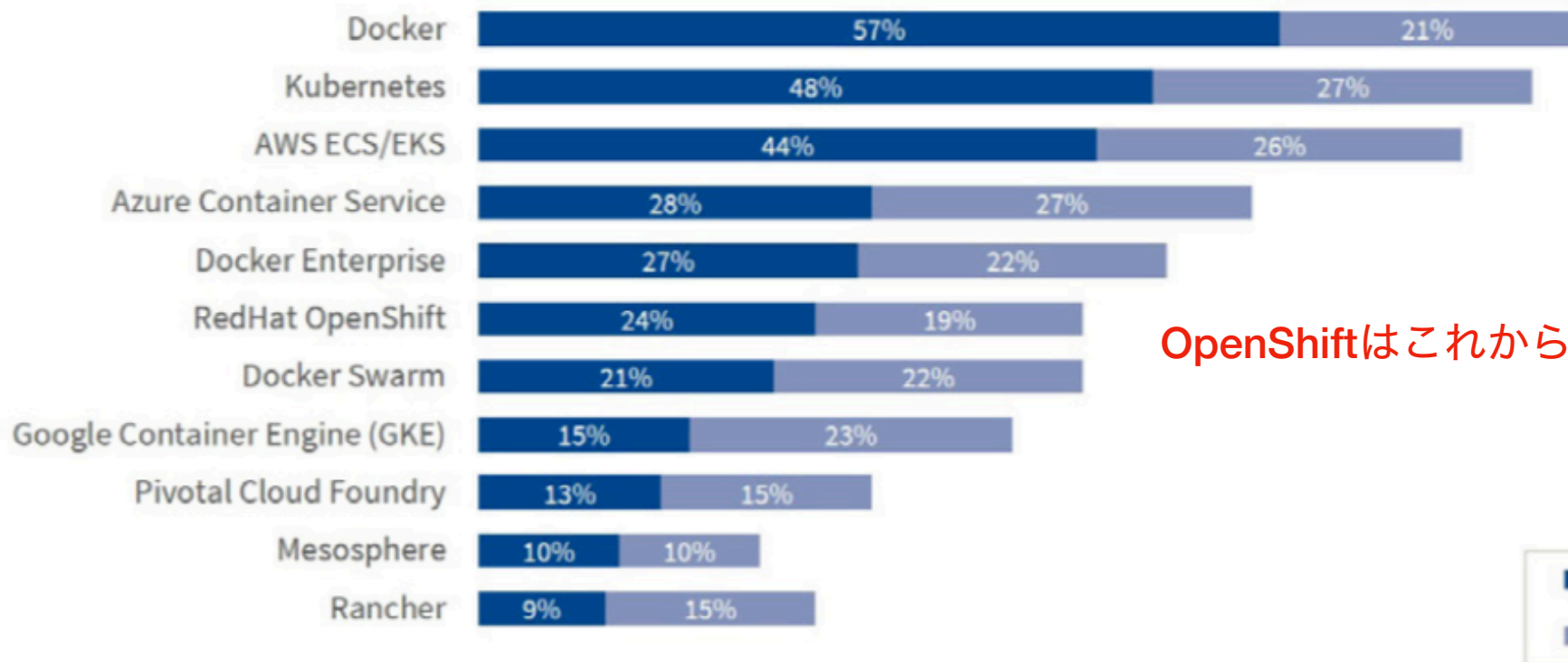| Tool	2019	2018
Docker	57%	49%
Kubernetes	48%	27%
AWS ECS/EKS	44%	44%
Azure Container Service	28%	20%
Docker Enterprise	27%	7%
Docker Swarm	21%	12%
Google Container Engine (GKE)	15%	14%
Mesosphere	10%	6%
Rancher	9%	5%

Docker Enterpriseの伸びも顕著

Source: RightScale 2019 State of the Cloud Report from Flexera

コンテナ利用は広範囲に、Kubernetesも急上昇 (3)

Container Tools Used - Enterprise
% of Respondents
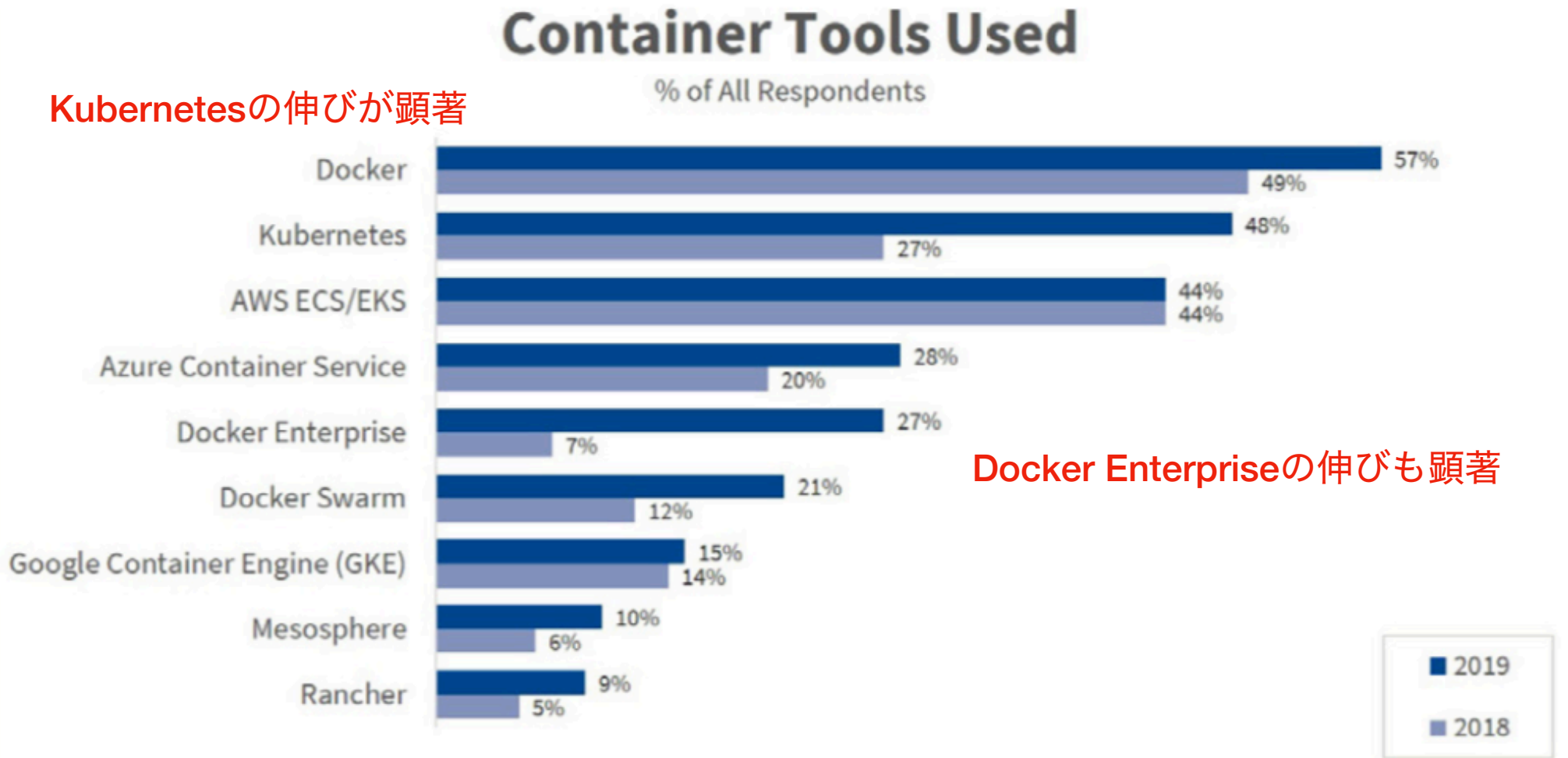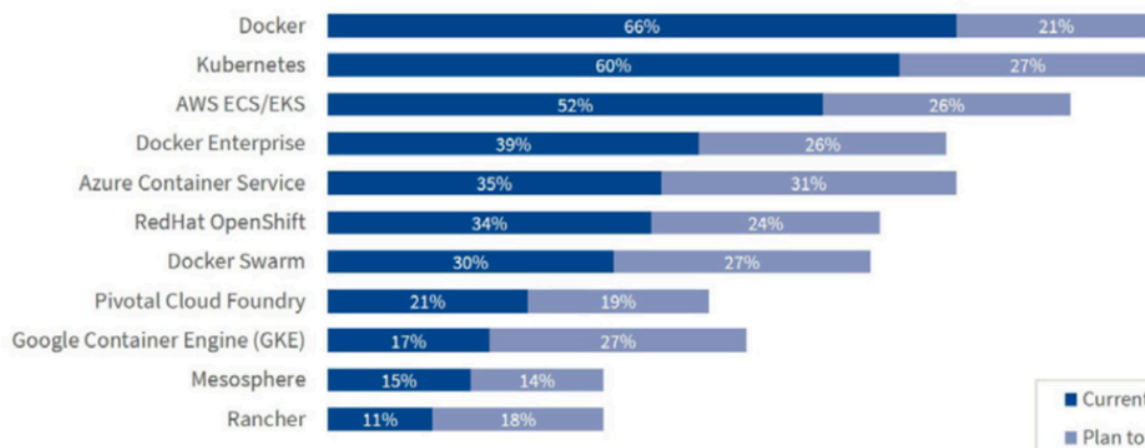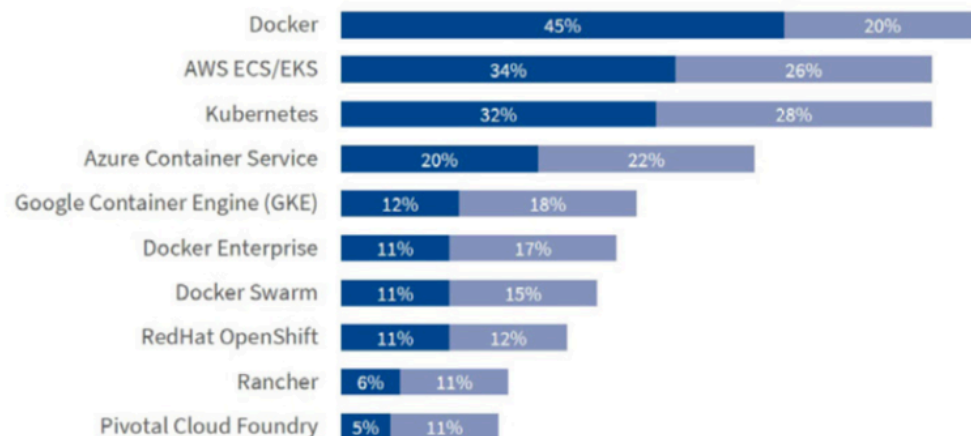
Tool	Currently use	Plan to use
Docker	66%	21%
Kubernetes	60%	27%
AWS ECS/EKS	52%	26%
Docker Enterprise	39%	26%
Azure Container Service	35%	31%
RedHat OpenShift	34%	24%
Docker Swarm	30%	27%
Pivotal Cloud Foundry	21%	19%
Google Container Engine (GKE)	17%	27%
Mesosphere	15%	14%
Rancher	11%	18%

EnterpriseでのOpenShiftは伸びが顕著

Container Tools Used - SMB
% of Respondents

Tool	Currently use	Plan to use
Docker	45%	20%
AWS ECS/EKS	34%	26%
Kubernetes	32%	28%
Azure Container Service	20%	22%
Google Container Engine (GKE)	12%	18%
Docker Enterprise	11%	17%
Docker Swarm	11%	15%
RedHat OpenShift	11%	12%
Rancher	6%	11%
Pivotal Cloud Foundry	5%	11%

SMBではクラウドネイティブが浸透

プライベートクラウド市場は ゆっくりと上昇

- オンプレミスではもはや不可能

VMWareの牙城は残るも、
他社技術が微妙に伸びる

Marketing Committee Meeting

August 7, 2019

CLOUD NATIVE
COMPUTING FOUNDATION

November 18-21, 2019
San Diego

March 30 - April 2, 2020
Amsterdam

kubecon.io

Announcing Kubernetes Forums

- https://www.cncf.io/blog/2019/07/31/announcing-kubernetes-summits-seoul-and-sydney-expanding-cloud-native-engagement-across-the-globe/

- Kubernetes Forum Seoul Dec 9-10 & Sydney 12-13

- (We launched as Kubernetes Summits but are rebranding this week to avoid confusion with the Kubernetes Contributor Summit)

- CFP Closes Sep 6; sponsorships open

Upcoming Kubernetes Forum Locations

Announced and open for sponsorships:

- December 9-10, 2019 Kubernetes Forum Seoul
- December 12-13, 2019 Kubernetes Forum Sydney

Prospectus now available!

Reach out to sponsor@cncf.io to reserve your booth and co-lo!

Coming in 2020:
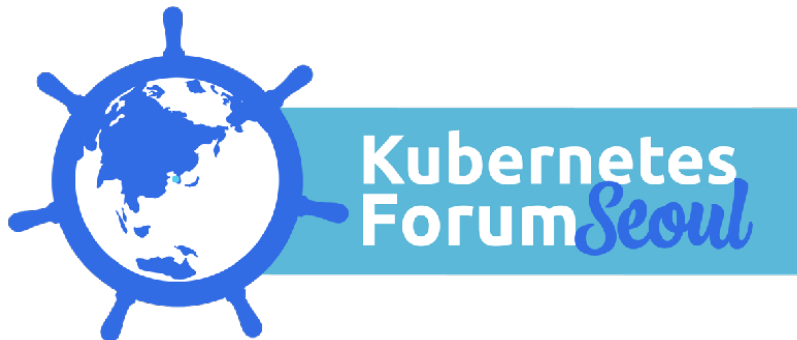
- January 2020: São Paulo and Mexico City
- Bengaluru and Delhi
- Tokyo and Singapore
- Tel Aviv
- Seoul and Sydney again

Project and Day 0 Co-Located Events

- CNCF is helping to organize 7 project-specific events:
    - Helm Summit (Amsterdam, September 11-12, sponsorship deadline is 8/12)
    - PromCon (Munich, November 7-8, sponsorship deadline is 10/4)
    - EnvoyCon (sponsorship deadline is 9/20)
    - ServiceMeshCon (CFP closes 8/30, sponsorship deadline is 9/20)
    - Observability Practitioners Summit (CFP closes 8/30, sponsorship deadline is 9/20)
    - FoundationDB Summit (CFP closes 8/9, sponsorship deadline is 9/20)
    - Cloud Native Security Day (sponsorship deadline is 9/20)

- The latter 5 are KubeCon + CloudNativeCon Day 0 co-located events, taking place in San Diego on November 18.
- Please review our Sponsorship Prospectus
- Please follow up to sponsor@cncf.io or schedule a call with Kathy Osweiler to discuss sponsorship opportunities.

Membership

New CNCF Members

29 Silver Members

CARBON RELAY · 中国东信 China-ASEAN Information Harbor · cnvrg.io · COMMVAULT · 두다지 DUDAJI

epsagon · FULLSTAQ · IGNW · inovex · kubegrid · McKinsey & Company

MORPHEUS · Odo. · omnition · Quobyte · RAFAY · 瑞云浩天 RAGINGHOT

SAMSUNG · Scaleway · SCYTALE · SiteWhere · SkyWiz by TERASKY

Southbridge · REPLY STORM · TALOS SYSTEMS · yotascale · verizon

2 Silver End User Members

Freddie Mac — We make home possible · G RESEARCH

2 Nonprofit Members

ECLIPSE FOUNDATION · TTA 한국정보통신기술협회 Telecommunications Technology Association

12 End User Supporter

CarGurus · coinsquare · dailymotion

易路软件 eRoad Software · Linked in · lunar way

MAMBU · Meltwater Outside Insight · uSwitch

Includes 2 non-public Silver and 3 non-public EUS

450+ Members and Growing

Platinum Members

Alibaba Cloud · aws · Apple · CISCO · DELL Technologies · FUJITSU · Google Cloud · HUAWEI · IBM Cloud

intel · JD.COM · Microsoft Azure · ORACLE · Pivotal · Red Hat · SAMSUNG / SAMSUNG SDS · SAP · vmware

Gold Members

蚂蚁金服 ANT FINANCIAL · arm · AT&T · BAIDU AI CLOUD · CapitalOne · CLOUDERA · DigitalOcean · INSPUR 浪潮 · JFrog · Kingsoft Cloud · Kong · NEC · NetApp · salesforce · SUSE · Tencent Cloud · ZTE

End User Members

Akatsuki · 蚂蚁金服 ANT FINANCIAL · Apple · ATLASSIAN · Bloomberg · CAMBIA · CapitalOne · ebay

DENSO · DiDi · Freddie Mac · Research · GitHub · globo.com · Goldman Sachs · indeed

intuit · JD.COM · JPMorgan Chase & Co. · MathWorks · Mattermost · Morgan Stanley · MUFG

NAIC · NCSOFT · Pinterest · salesforce · Spotify · SQUARESPACE

STATE STREET · TRADESHIFT · Twitter · Advanced Research Computing Technology Services · WIKIMEDIA FOUNDATION · YAHOO! JAPAN

End User Supporters

adidas · AMADEUS · AUDITBOARD · box · CarGurus · cookpad · cruise · CURVE · dailymotion · DOORDASH · 易路软件 eRoad Software

FORM3 · Granular · Psystems · Kuelap · la Mobilière · lunar way · MAMBU · mastercard · Meltwater · Nasdaq · The New York Times · nielsen

PostFinance · PUSHER · reddit · ricardo.ch · SAP Concur · shopify · showmax · SIMPLE NEXUS · Spredfast

StateFarm · STEEL HOUSE · stix · testfire labs · textkernel · THREDUP · ticketmaster · TWO SIGMA · UPSIDER

uSwitch · Wabtec · Werkspot · wework · woorank · workday · WP engine · zalando · zendesk

Academic/Nonprofit

CableLabs · CAMBIA · CENGN

CLOUDFOUNDRY · ECLIPSE FOUNDATION · GOLDEN GATE UNIVERSITY

INTERNET2 · NAIC · NIPR

OpenCloud · SEL · 한국정보통신기술협회

Advanced Research Computing Technology Services · WIKIMEDIA FOUNDATION

450+ Members and Growing (Silver 1)

450+ Members and Growing (Silver 2)

450+ Members and Growing (Silver 3)

103 Companies in the End User Community

Plus 14 non-public members

103 KCSP Partners, 10 new from last meeting

Training & Certification

Training

- Introduction to Kubernetes (LFS158 - on edX): 83,000+ enrollments
- Kubernetes Fundamentals (LFS258): 9,100+ enrollments
- Kubernetes for Developers (LFD259): 2,000+ enrollments

All courses are updated periodically
- LFS158, LFS258 and LFD259 are all on v1.14
- LFS258 and LFD259 will be updated to V1.15 in August

セルフ型のトレーニング：日本国内で提供開始

30 KTPs, up 8 from last meeting

日本国内で提供
（もちろん日本語で）

Certification Updates - CKA

Certified Kubernetes Administrator (CKA)

- 9,349 exam registrations (up from 8,141 last month)
- Quarterly exam updates are planned to match Kubernetes releases; CKA exam is currently live on v1.15 (as of 8/1)
- CKA-CN-TC exam is now available in China at 16 city Test Centers with in-person Proctors
- CKA curriculum is published here: https://github.com/cncf/curriculum
- Digital Badges are now available for courses and exams! https:// training.linuxfoundation.org/announcements/New-digital-badges-now-available-for-courses-and-exams/
- NEW **Exam Developer** badge for contributing SMEs exposed to exam content during development and therefore not eligible to be certified

Certification Updates - CKAD

Certified Kubernetes Application Developer (CKAD)

- 3,507 exam registrations (up from 2,626 last month)
- Quarterly exam updates are planned to match Kubernetes releases; CKAD exam is currently live on v1.15 (as of 8/1)
- CKAD Curriculum is published here: https://github.com/cncf/curriculum
- Digital Badges are now available for courses and exams! https://training.linuxfoundation.org/announcements/New-digital-badges-now-available-for-courses-and-exams/
- NEW **Exam Developer** badge for contributing SMEs exposed to exam content during development and therefore not eligible to be certified

PR / AR

Email pr@cncf.io for followup

CLOUD NATIVE
COMPUTING FOUNDATION

KubeCon + CloudNativeCon + OSS China 2019

Announcements

Cloud Native Computing Foundation Welcomes Ant Financial as Gold End User Member

Cloud Native Computing Foundation Announces DiDi as Winner of Top End User Award

TOC Approves CNCF SIGs and Creates Security and Storage SIGs

Non-Chinese Event Coverage Highlights

- Container Journal: CNCF to Expand Scope of SIGs
- Container Journal: Graphical Tool for Deploying Kubernetes Gets Certified
- Converge Network Digest: Cloud Native Computing momentum continues to build
- DevClass: It's all stability and extensibility for Kubernetes 1.15
- SiliconANGLE: Linux Foundation aims for global unification through open-source
- SmarterMSP: Open source community flexes edge computing muscle
- The New Stack: How to Build Open Source Sustainability
- The New Stack: How PingCAP's TikV Is Set to Process Transactions from China's 800 Million Internet Shoppers
- The New Stack: Context: KubeCon + CloudNativeCon + Open Source Summit China 2019

CNCF ✓
@CloudNativeFdn

[#KubeCon + #CloudNativeCon + #OSS China News] Cloud Native Computing Foundation Announces @DidiChuxing as Winner of Top End User Award 🎉 bit.ly/2LdsdCA

Cloud Native Computing Foundation Annou...
Leading transportation platform recognized for its contributions to open source big data and artificial intelligence technologies SHANGHAI, CHINA — cncf.io

♡ 6   5:08 AM - Jun 24, 2019

Kubernetes 5th Birthday - Coverage Highlights

- GeekWire: Kubernetes at 5: Joe Beda, Brendan Burns, and Craig McLuckie on its past, future, and the true value of open source
- Business Insider: 5 years ago, Google gave away a cloud-computing project. Now people love it so much they're celebrating its anniversary in Spain.
- Container Journal: Key Considerations in Container Adoption
- SD TImes: Kubernetes celebrates its fifth birthday, reflecting on its massive growth
- Software Engineering Daily: Kubernetes Development with Tim Hockin
- @IT Markit: Kubernetes who became 5 years old, from now on "play in Linux like role"
- Forbes: 5 Exciting Facts About Kubernetes On The Eve Of Its 5th Anniversary
- SiliconANGLE: Q&A: As Kubernetes celebrates five years, contributors weigh in on the ecosystem
- Computer Weekly: How Kubernetes' fifth year is leading to a shift in enterprise IT
- Computable: Kubernetes embraced en masse
- GeekWire: The creators of Kubernetes to discuss its past and future at GeekWire's 3rd annual Cloud Summit

June/July Announcements

- Apple Joins Cloud Native Computing Foundation as Platinum End User Member (June 11)

- Cloud Native Computing Foundation Welcomes Ant Financial as Gold End User Member (June 24)

- TOC Approves CNCF SIGs and Creates Security and Storage SIGs (June 24)

- Cloud Native Computing Foundation Announces DiDi as Winner of Top End User Award (June 25)

- The Cloud Native Computing Foundation Announces the Kubernetes Certified Service Providers Program Has Reached 100 Participants (July 9)

- CNCF Meetups Are Now Happening in More than 200 Locations (July 18)

- Announcing Kubernetes Summits Seoul and Sydney: Expanding Cloud Native Engagement Across the Globe (July 31)

June/July PR Activity + Coverage Highlights

Notable Media/Analyst Coverage *(outside of KubeCon China + K8s birthday)*

- TechCrunch: Apple Joins the Open-Source Cloud Native Computing Foundation
- InfoQ: Harbor 1.8 Includes OIDC Integration and Replication Enhancements
- FierceTelecom: Apple signs up as a platinum member of Cloud Native Computing Foundation
- ITOpsTimes: Kubernetes 1.15 focuses on continuous improvement
- The New Stack: Kubernetes 1.15 Aims to Extensibility with Custom Resource Definition Features
- The New Stack: How to Build Open Source Sustainability
- The New Stack: Leadership and Inclusion in the Open Source Community
- Channel Futures: Kubernetes 1.15 Release Gets Refinements to Ease Business Use
- Container Journal: Kubernetes 1.15 Adds to API Kitty
- The New Stack: NATS 2.0: Like Containers for Messaging

Diversity Scholarship Blog Series!

From Networking in Copenhagen to a Lightning Talk in Shanghai

Experiencing KubeCon + CloudNativeCon + Open Source Summit in Shanghai

KubeCon + CloudNativeCon EU 2019

My KubeCon & CloudNativeCon Europe Experience 2019

July Analyst Coverage Highlights

- IDC: Kubernetes at Five — An Inflection Point for Kubernetes, Sriram Subramanian
  - Explains and analyzes the main topics presented during the KubeCon + CloudNativeCon Europe conference held on May 20-23 in Barcelona, Spain.

- Gartner: Hype Cycle for Software as a Service, 2019, Jay Heiser, John Santoro

- Gartner: Hype Cycle for Enterprise Networking, 2019, Andrew Lerner, Danellie Young

- Gartner: Hype Cycle for Infrastructure Strategies, 2019, Philip Dawson, Nathan Hill

- Gartner: Define and Understand New Cloud Terms to Succeed in the New Cloud Era, David Smith | Daryl Plummer

- Forrester: The Forrester Wave™: Application Modernization And Migration Services, Q3 2019, Bill Martorelli

- 451 Research: The cloud industry must embrace complexity to survive, Owen Rogers, Melanie Posey

- IDC: Worldwide Public Cloud Infrastructure as a Service Market Shares, 2018: Leaders' Growth Drives up Overall Market Growth, Deepak Mohan

- ISG - ISG Provider Lens™ Private/Hybrid Cloud - Data Center Services & Solutions - U.S. 2019 - Managed Containers as a Service, Shashanke Rajmane

Faceted Search for End User Case Studies

Filter the list of case studies:

Reset filter

| All Industries ▾ | All Cloud Types ▾ | All Projects ▾ | All Challenges ▾ | All Countries ▾ | All Product Types ▾ |

Adform
READ THE PROMETHEUS CASE STUDY

Adform
READ THE KUBERNETES CASE STUDY

Amadeus
READ THE CASE STUDY

Ant Financial
READ THE CASE STUDY

Bose
READ THE CASE STUDY

Capital One
READ THE CASE STUDY

CERN
READ THE CASE STUDY

China Unicom
READ THE CASE STUDY

City of Montréal
READ THE CASE STUDY

Comcast
READ THE CASE STUDY

CreditEase
READ THE CASE STUDY

Crowdfire
READ THE CASE STUDY

Updated Design - End User Case Studies

CASE STUDY
Bose: Supporting Rapid Development for Millions of IoT Products With Kubernetes

A household name in high-quality audio equipment, Bose has offered connected products for more than five years, and as that demand grew, the infrastructure had to change to support it.

"We needed to provide a mechanism for developers to rapidly prototype and deploy services all the way to production pretty fast," says Lead Cloud Engineer Josh West. "There were a lot of cloud capabilities we wanted to provide to support our audio equipment and experiences."

In 2016, the company decided to start building an IoT platform from scratch. The primary goal: "To be one to two steps ahead of the different product groups so that we are never scrambling to catch up with their scale," says Cloud Architecture Manager Dylan O'Mahony. "If they release a new connected product, we want to be already well ahead of being able to handle whatever scale that they're going to throw at us."

From the beginning, the team knew it wanted a microservices architecture and platform as a service. After evaluating and prototyping orchestration solutions, including Mesos and Docker Swarm, the team decided to adopt Kubernetes for its platform running on AWS. Kubernetes was still in 1.5, but already the technology could do much of what the team wanted and needed for the present and the future. For West, that meant having storage and network handled. O'Mahony points to Kubernetes' portability in case Bose decides to go multi-cloud.

"Bose is a company that looks out for the long term," says West. "Going with a quick commercial off-the-shelf solution might've worked for that point in time, but it would not have carried us forward, which is what we needed from Kubernetes and the CNCF."

CNCF Case Study June/July Spotlight

Spotify: [An Early Adopter of Containers, Spotify Is Migrating from Homegrown Orchestration to Kubernetes](#)

Want to help us promote? [Share this Tweet](#)

JD.com: [How JD.com Uses Vitess to Manage Scaling Databases for Hyperscale](#)
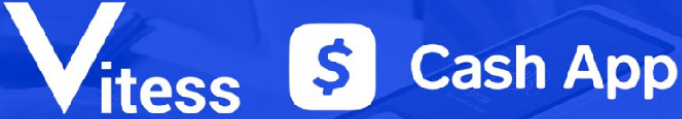
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CNCF Case Study June/July Spotlight, Cont.

Cash App (Square): How Vitess Enables 'Near Unlimited Scale' for Cash App

Want to help us promote? Share this Tweet

KubeCon Transparency Reports: China + Barcelona

KubeCon + CloudNativeCon + Open Source Summit China 2019

Of the 3,500 attendees, 60% were first-time KubeCon attendees.

Attendees came from 43 countries across five continents; (83%) were from China.

54 media and analysts attended the event, including 13 English-speakers, generating more than 393 clips of compelling event news.

KubeCon + CloudNativeCon Europe 2019

Attendance grew by 84% from last year's KubeCon event in Copenhagen.

95 media and analysts attended the event, generating more than 5,300 clips of event news.

Leveraging the $100,000 in diversity scholarship funds available from sponsors, CNCF provided travel and/or conference registration to 56 applicants.

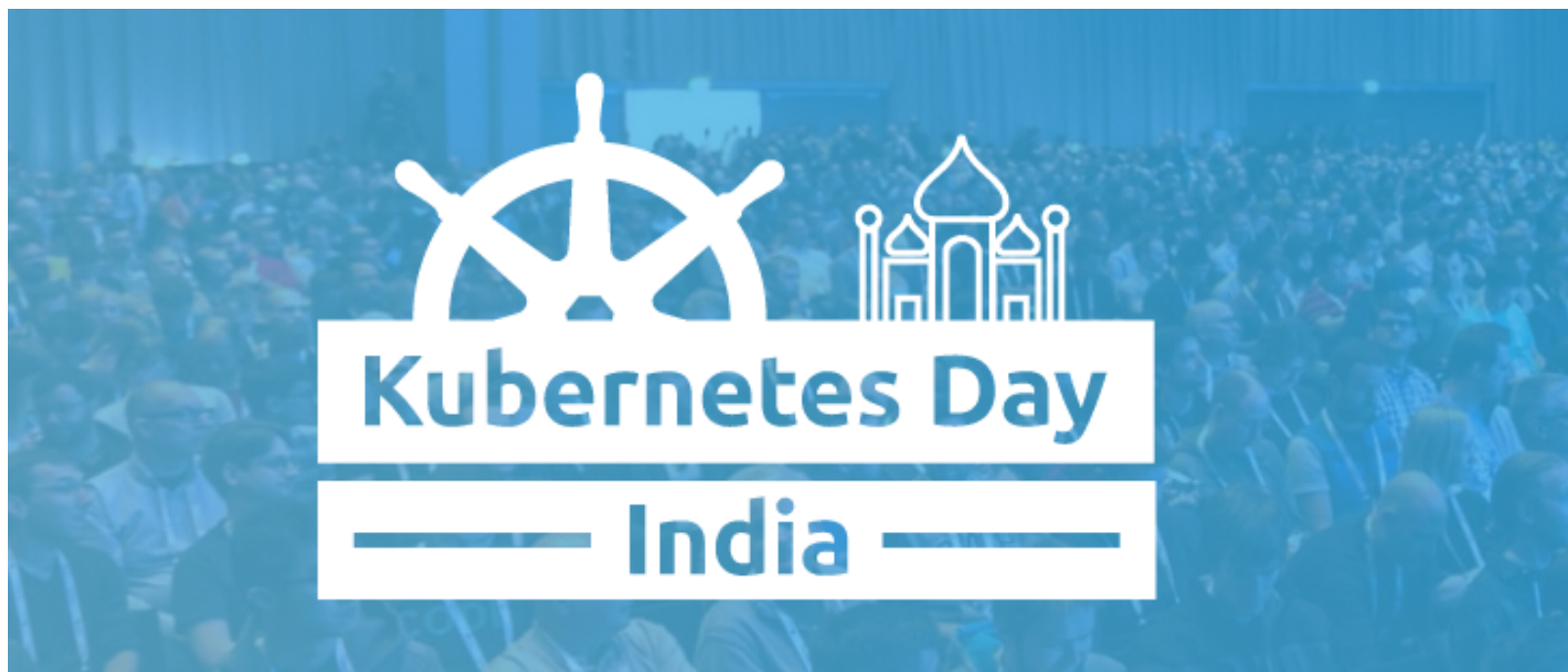40% of the keynote and 14% of the track speakers were led by women.

Kubernetes, Prometheus and Helm were the top three projects in terms of attendee interest.

Events

Kubernetes Day India Highlights
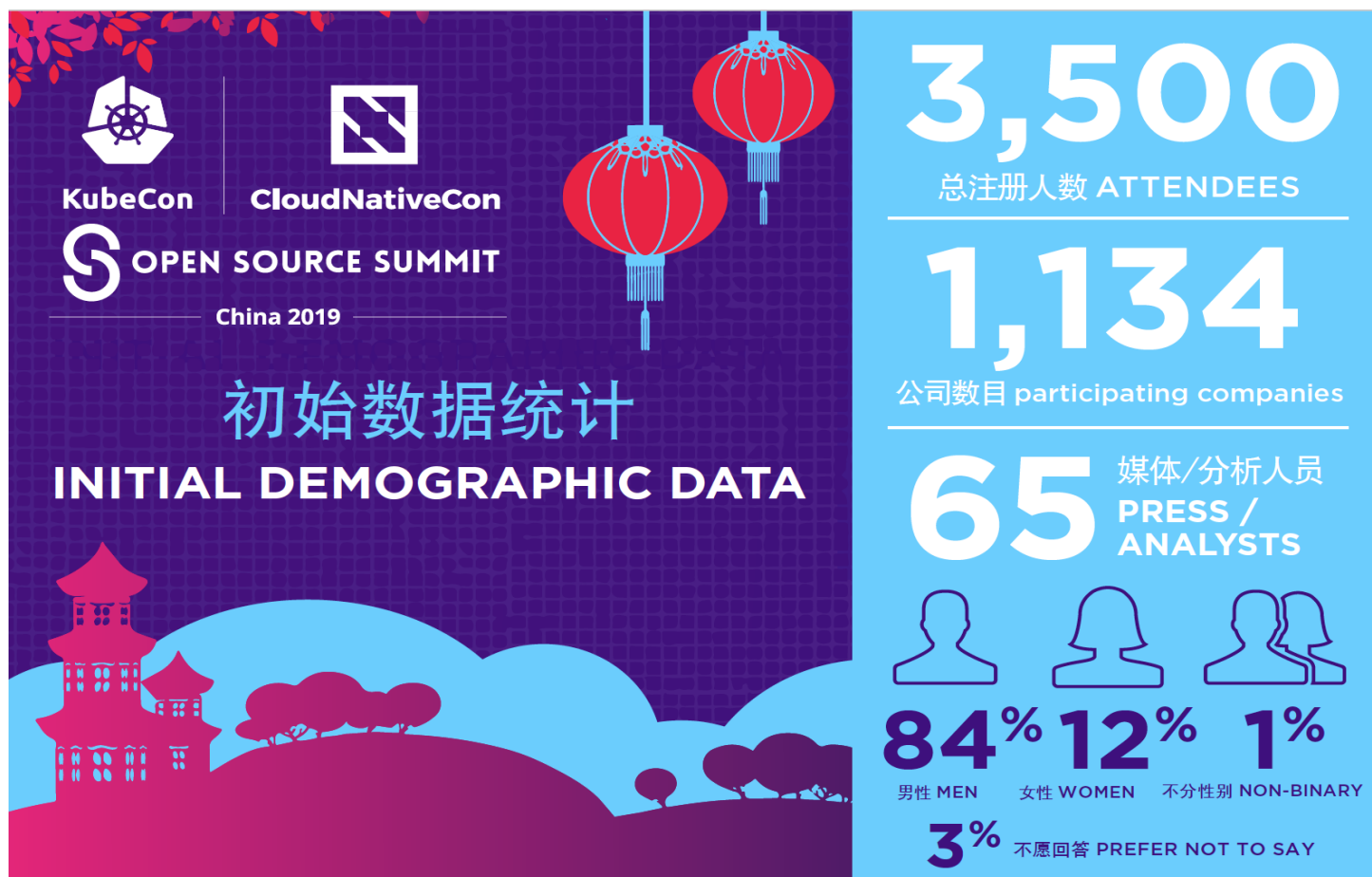
View the highlights video

KubeCon + CloudNativeCon Barcelona Highlights

View the [Barcelona highlights](#) video

KubeCon + CloudNativeCon + Open Source Summit China 2019

KubeCon + CloudNativeCon + Open Source Summit China 2019

参会者出席最多的**3个国家** Top 3 Countries Represented

中国, 美国, 日本 CHINA, USA, JAPAN

前三个最感兴趣的项目
TOP THREE PROJECT INTERESTS

Kubernetes   Prometheus   containerd

前三个工作职能
TOP THREE JOB FUNCTIONS

1 开发人员 Developer

2 IT运营人员 IT Operations

3 销售/市场 Sales/Marketing

939
演讲方案提交
CFP Submissions

14
同场活动
Co-Located Events

32
主题演讲
Keynotes

252
会议
Sessions

17%
女性演讲者
Female Speakers

KubeCon + CloudNativeCon
Sponsor in 2019

3% discount for members

5% discount for members sponsoring two events

8% discount for members sponsoring three events

Deadline to submit signed sponsorship contracts:
Thursday, August 15

San Diego
November 18-21
Attendees: 11,000+

KubeCon + CloudNativeCon North America 2019

[Sponsorships](#) are open for [San Diego](#), November 18 - 21!

- **Diamond** - Cisco, Google Cloud, Intel, Microsoft Azure, Red Hat, VMware

- **Platinum** - Amazon Web Services, Apple, Aqua Security, Ballerina, Capital One, CloudBees, DivvyCloud, Docker, Dynatrace, F5 Networks, GitLab, HPE, IBM Cloud, JFrog, Kong, LogDNA, Mirantis, Mesosphere, NetApp, New Relic, Pivotal, Portworx, Rancher, Stackrox, SUSE, Sysdig, Tigera, Turbonomic, Twistlock, Ubuntu

- **Gold** - Avi Networks, Buoyant, Circle CI, Citrix, Datadog, Datastax, Datrium, Influxdata, Infoblox, Instana, Lean IX, LightStep, Platform9, SignalFx, Supergiant, The Home Depot, Yahoo Japan

- **Silver** - A10 Networks, Aiven, Algorithmia, Anchore, Anynines, Aporeto, Arista, Arm Treasure Data, Aspen Mesh, Chef, Cilium, Cloud 66, Cockroach Labs, Codefresh, Containous, Couchbase, Cryptomove, CyberArk, Decipher Technology Studios, Densify, Diamanti, DigitalOcean, Eclipse Foundation, Elastic, EnterpriseDB, Fairwinds, Grape Up, HAProxy, Harness, HashiCorp, Iguazio, Intuit, Jetbrains, Juniper Networks, Kasten, Lacework, LaunchDarkly, Linbit, Linode, Linux Academy, Linux Foundation Training, LogicMonitor, MacStadium, MemSQL, MUFG, NuoDB, O'Reilly, OpenLogic, OpenStack Foundation, Oracle, OverOps, Packet, Pagerduty, Percona, Pure Storage, Quest, Rackspace, Red8, Redis Labs, Replicated, Rogue Wave Software, RX-M, SAS, Sauce Labs, Sentry, Snyk, Splunk, Spotinst, Stark & Wayne, Storage OS, Supermicro, Synopsys, Trend Micro, Tufin, Turbot, VictorOps, Volterra, Weaveworks, WhiteSource Software, xMatters

- **Start-Up/End User** - Agile Stacks, Alcide, Alluxio, Arrikto, Atomist, Banzai Cloud, Blameless, Blockchain Technology Partners, Capsule8, Carbon Relay, CNVRG, Cribl, Cruise, Darillium, Datawire, DeployHub, DriveScale, Epsagon, Flowmill, FOSSA, Giant Swarm, Grafana Labs, Gravitational, Gremlin, Humio, InfoSiftr, Insightfinder,, Kontena, KubeGrid, KubeMQ, Kublr, LF Edge, LF Networking, Loodse, Mattermost, MayaData, Morpheus Data, NetFoundry, NeuVector, Octarine, Odo Security, Omnition, Opsani, PlanetScale, Portshift, Pulumi, Quobyte, Rafay Systems, Reduxio, Replex, Rookout, Scalyr, Scytale, Section, Sensu, Softiron, Solo, Squadcast, Styra, Tetrate, Tyk, Upbound, Wallarm, Windmill Engineering, Yotascale

KubeCon + CloudNativeCon North America 2019

Registration:
- Register Now! **Standard pricing ends September 10**
- 1,432 registered

CFP Timeline:
- Closed: Friday, July 12
- 1,801 submissions
- CFP Notifications: Tuesday, September 3
- Schedule Announced: Thursday, September 5

Hotel: Book a Room Now!

Kubernetes Contributor Summit

Dates: November 17-18, 2019
Location: San Diego

Registration opens September 4

Submit to the CFP!

EnvoyCon 2019

Dates: November 18, 2019
Location: San Diego

Registration: $299

Schedule to be announced August 19

Interested in Sponsoring?
Limited opportunities available. Download the prospectus
or contact sponsor@cncf.io for additional details.

FoundationDB Summit 2019

Dates: November 18, 2019
Location: San Diego

Registration: $199

CFP: **Applications close August 9**

Interested in Sponsoring?
Limited opportunities available. Download the prospectus
or contact sponsor@cncf.io for additional details.

Cloud Native Security Day

Dates: November 18, 2019
Location: San Diego

Registration: $199

Interested in Sponsoring?
Limited opportunities available. Download the prospectus
or contact sponsor@cncf.io for additional details.

Observability Practitioners Summit

Dates: November 18, 2019
Location: San Diego

Registration: $250

CFP: Applications close August 30

Sponsor: LightStep

Interested in Sponsoring?
Limited opportunities available. Download the prospectus
or contact sponsor@cncf.io for additional details.

ServiceMeshCon

Dates: November 18, 2019
Location: San Diego

Registration: $199

CFP: Applications close August 30

Sponsors: Buoyant, solo.io, Decipher, Tetrate

Interested in Sponsoring?
Limited opportunities available. Download the prospectus
or contact sponsor@cncf.io for additional details.

Helm Summit 2019

Dates: September 11-12, 2019
Location: Amsterdam

Registration: $250 Early Bird Rate through August 26

Schedule Now Available

Sponsors: Jfrog, Microsoft & Replicated

Interested in Sponsoring?
Limited opportunities available. Download the prospectus
or contact sponsor@cncf.io for additional details.

2019 Tradeshows

Third Party Event	Location	Dates	Status
Cloud Native Days Korea	Seoul	July 17-19	Completed
Open Source Summit Japan	Tokyo	July 17-19	Completed
Open Source Summit NA	San Diego	August 21-23, 2019	Confirmed
Write the Docs	Prague	September 17-19	Confirmed
Huawei Connect	Shanghai	September 18-20	Confirmed
Open Networking Summit EU	Antwerp	September 23-25	Confirmed
Alibaba Aspara Conference	Hangzhou	September 24-27	Confirmed
Grace Hopper Celebration	Orlando	October 2-3	Confirmed
AGL Europe	Monte Carlo	October 21-23	Confirmed
Open Source Summit EU	Lyon	October 28-30	Confirmed
AWS re:Invent	Las Vegas	December 2-6	Confirmed

Announcing Kubernetes Forums

- https://www.cncf.io/blog/2019/07/31/announcing-kubernetes-summits-seoul-and-sydney-expanding-cloud-native-engagement-across-the-globe/

- Kubernetes Forum Seoul Dec 9-10 & Sydney 12-13

- (We launched as Kubernetes Summits but are rebranding this week to avoid confusion with the Kubernetes Contributor Summit)

- CFP Closes Sep 6; sponsorships open
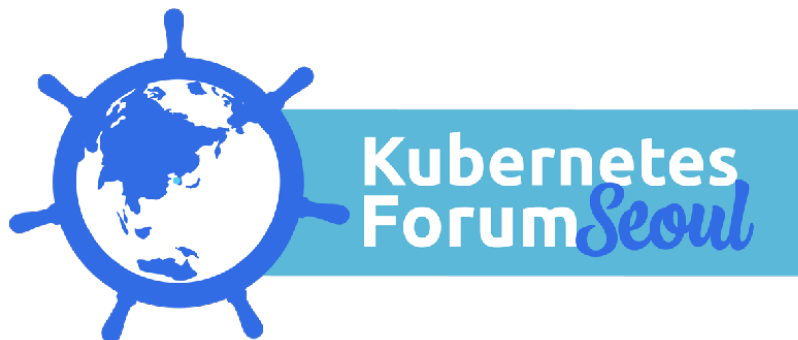
Kubernetes Forum Details (1)

- Structuring to have two-day events
  - Day 1 has a beginner and an advanced track, coming together in some joint keynotes plus a sponsor showcase
  - Approximately half of speakers will be local and half will be international
  - Day 2 will be available for sponsors to offer co-located presentations or trainings
- Target attendance: 1,500
- We will be launching in pairs of cities so that sponsors and international speakers can participate in both cities in the same week

Kubernetes Forum Details (2)

- Sample schedule
  - Speakers and sponsors arrive to Location #1 no later than Sunday
  - The CFP-based sessions occur Monday
  - On Tuesday, attendees select among several co-located events.
    - These may be cloud- or distribution-specific training or any other topics of interest to Kubernetes Summit attendees.
  - Tuesday night, the sponsors and international speakers will take a red-eye flight to Location #2 and recover Wednesday, where the time zone is only 1 hour different.
  - On Thursday, the international speakers will present the same material from the Location #1 event, interspersed with a slate of new talks from different local speakers in Location #2.
  - On Friday, the co-located events repeat.

Upcoming Kubernetes Forum Locations

Announced and open for sponsorships:

- December 9-10, 2019 Kubernetes Forum Seoul
- December 12-13, 2019 Kubernetes Forum Sydney

Prospectus now available!

Reach out to sponsor@cncf.io to reserve your booth and co-lo!

Coming in 2020:

- January 2020: São Paulo and Mexico City
- Bengaluru and Delhi
- Tokyo and Singapore
- Tel Aviv
- Seoul and Sydney again

CloudNative Days Tokyo