

An abstract graphic on the left side of the image, composed of numerous thin, light green lines that curve and swirl together to form a complex, organic shape resembling a stylized flower or a dynamic energy field.

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OCP
SUMMIT

How effective was OCP adoption in Yahoo! JAPAN Infrastructure as Non-Board Member of OCP

Kazuhide Fujimi / Server Infra. Architect / Yahoo Japan Corporation



Today's Agenda

● Introduction

- About Yahoo! JAPAN
- About Speaker
- Overview OCP adoption at Yahoo! JAPAN

● How effective OCP

- Cost Saving
- Operational Efficiency / Enhanced Relationship

● Challenges for OCP adoption

- Delivery / Internal Coordinate / Lead Time

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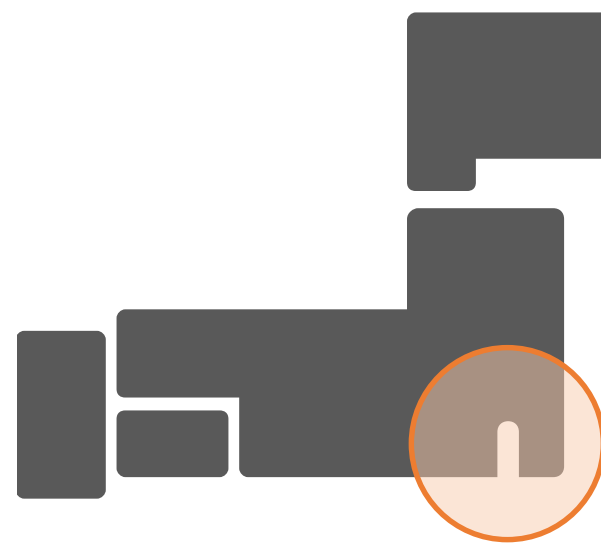
- Delivery / Internal Coordinate / Lead Time

About Company (1/2)



1. Characteristics of Yahoo! JAPAN

Over 100 various services and high quality data



Tokyo - JP

Over 6,000 Employees

Over 20 years Company History

(Founded in January 31, 1996)



*As of December 2018

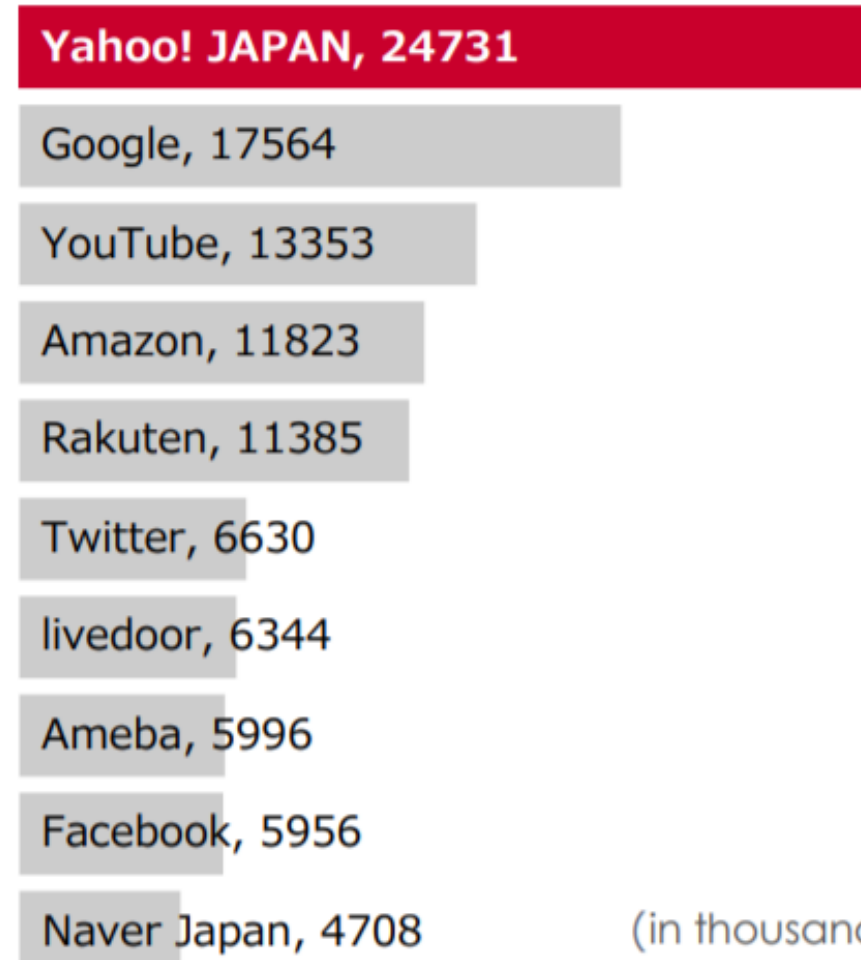
About Company (2/2)

2. Characteristics of Yahoo! JAPAN

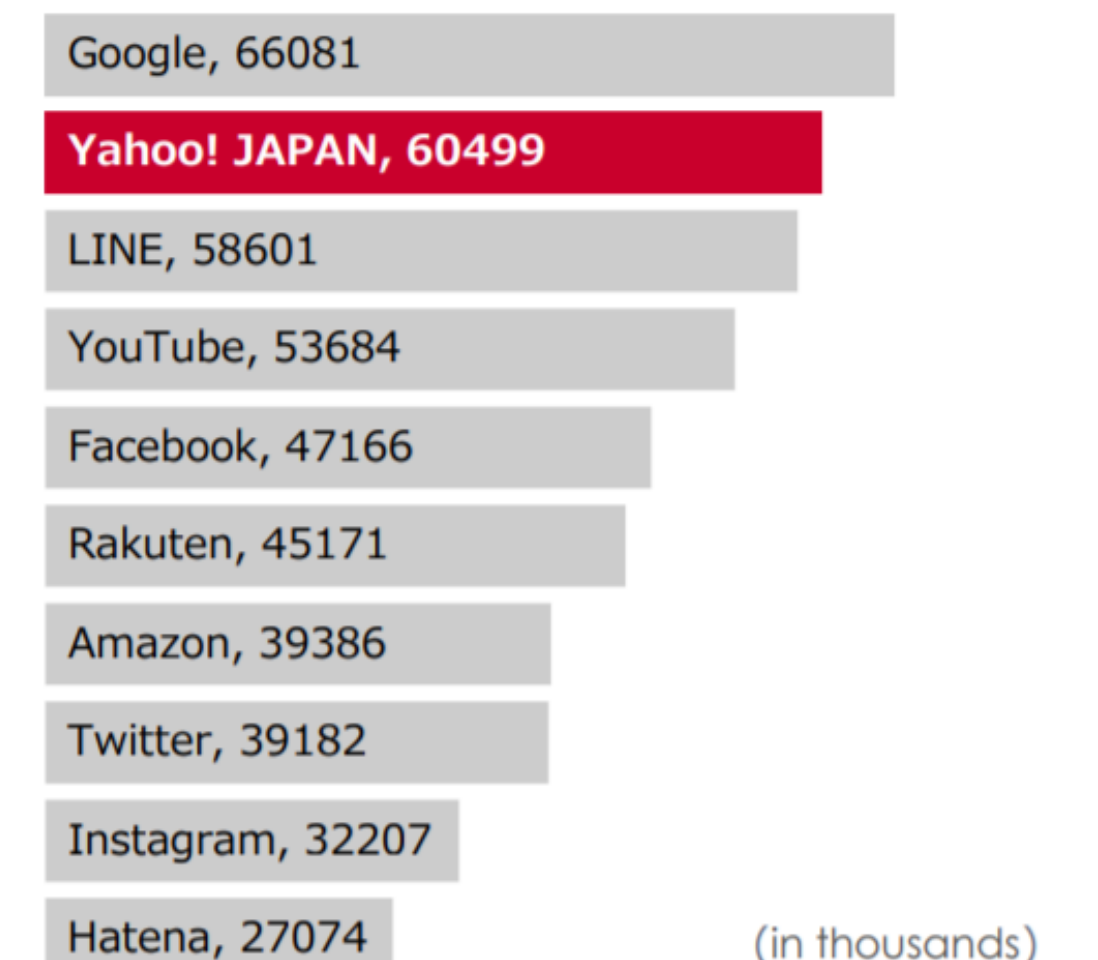
one of the largest user volume in Japan



PC users



Smartphone users

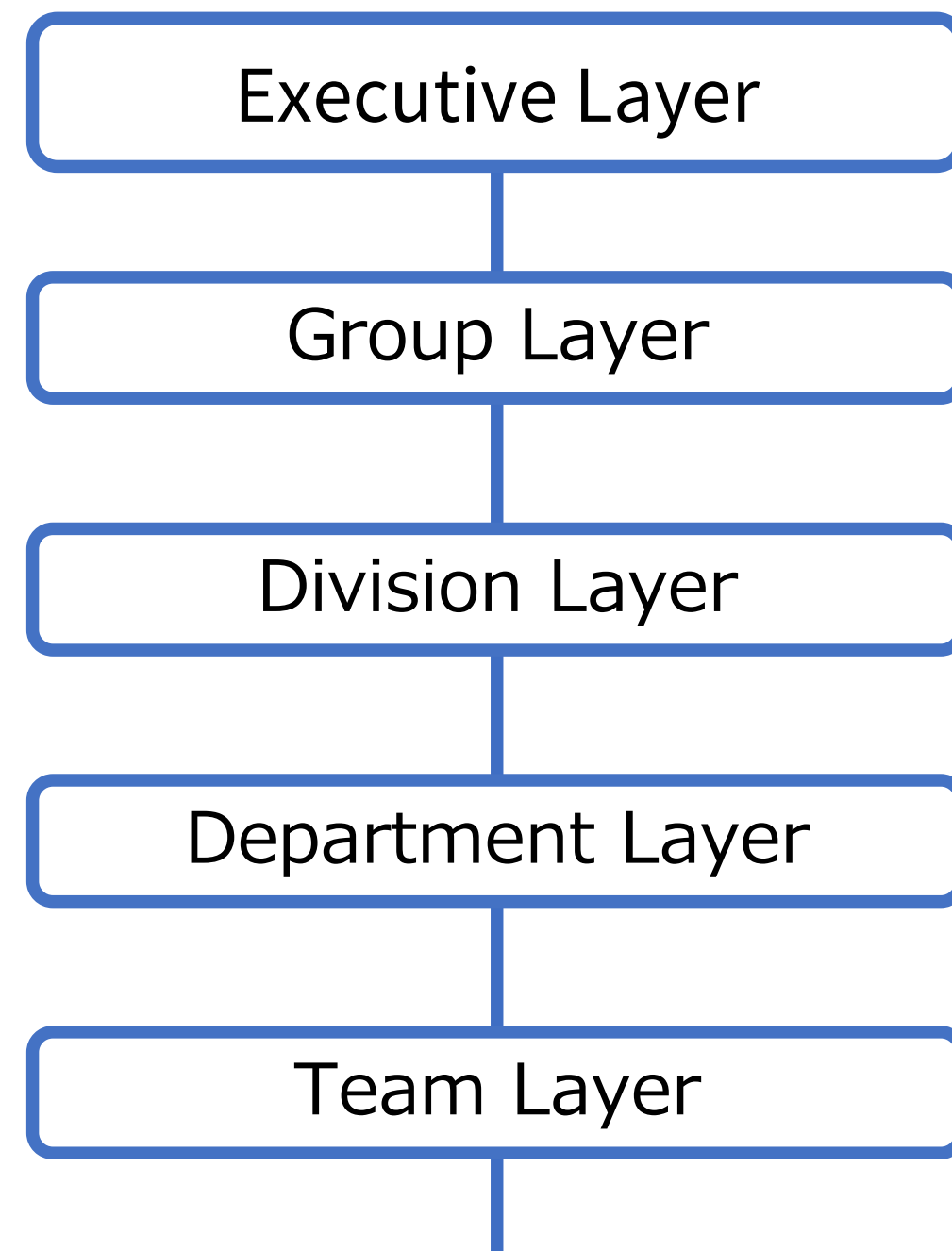


*Source: "Nielsen NetView" PC access from home or office (excluding internet apps), "Nielsen Mobile NetView" Smartphone access (including apps). Average of April to September 2018 summarized by brand level. Calculated by Yahoo! JAPAN from "Nielsen NetView Custom Data feed".

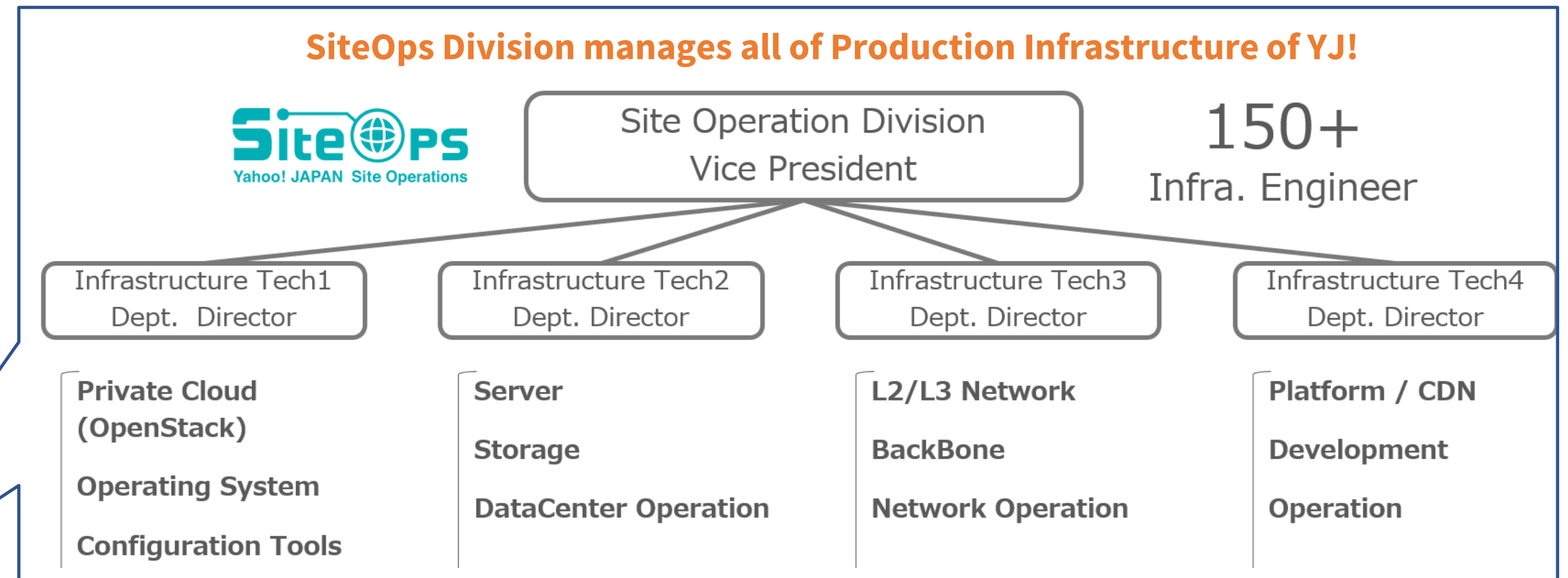


Speaker

Simplified organization overview of Yahoo Japan Corporation



Kazuhide Fujimi (me) in HW/DCO Team



Speaker : Kazuhide Fujimi

My Profile

- Joined YJ! since 2010
- Belong to HW/DCO Team
- Involve OCP since 2014
- My history of testing server: Over 6 vendor, 30 Model

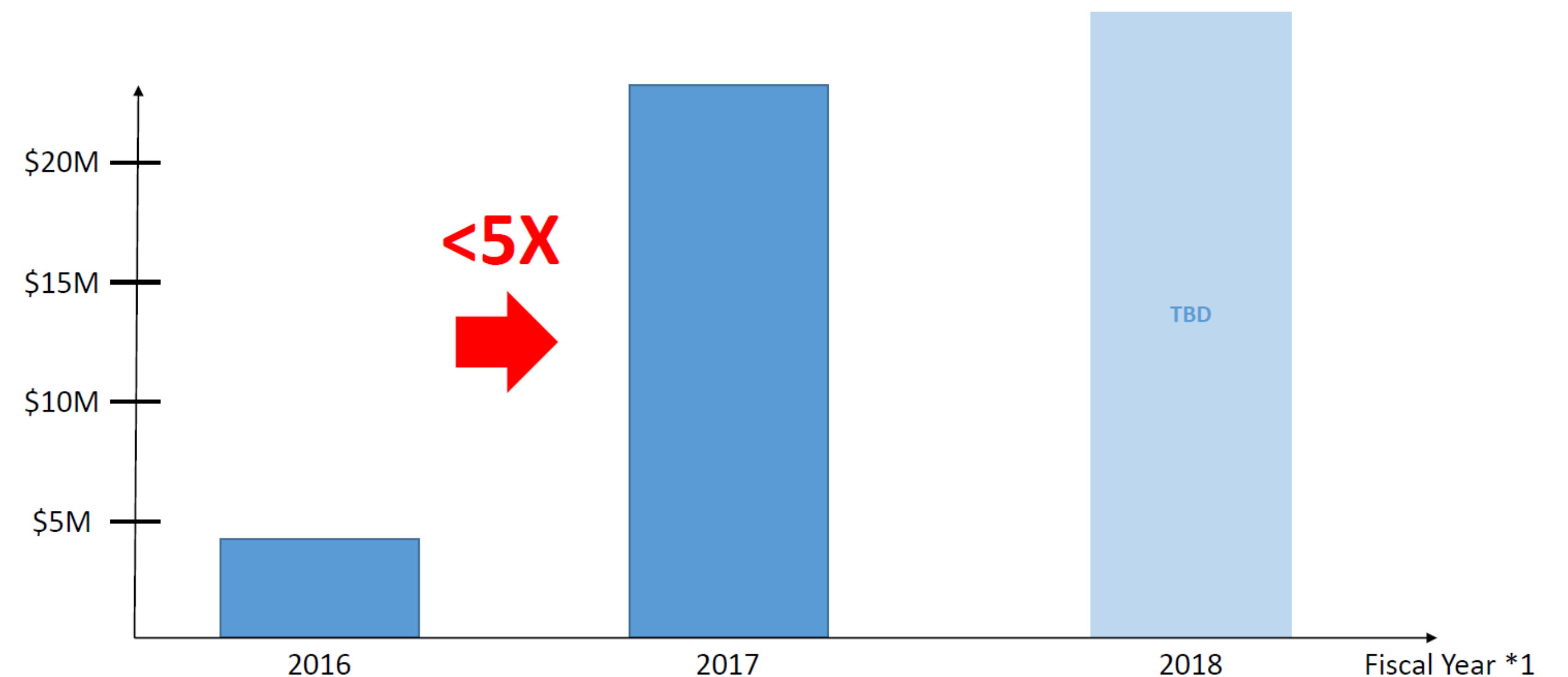
My Responsibility of Server :

- Testing
- Considering Configuration
- Procurement
- Vendor/Supplier Communication
- Troubleshooting
- Quality Control

OCP Journey of Yahoo! JAPAN

- 2016 ● Adoption Leopard (OCPv1) for 1 site
- 2017 ● Adoption Leopard (OCPv2) for 2 site
- 2018 ● Adoption for Leopard/TiogaPass (OCPv2)
- 2019 ● Planning to expand OCP adoption

Yahoo! JAPAN's OCP investment is increasing



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How effective of OCP adoption

1. CAPEX Saving

- Saved **29%** / server unit cost
- Saved **18%** / rack (without OPEX)

2. Operational Efficiency / Enhanced Relationship

- Removing Rail/Tools/Rear-Ops for enhancing Ops
- OCP style for enhancing Relationship of Manufacturer

Cost Reduction of Initial/TCO

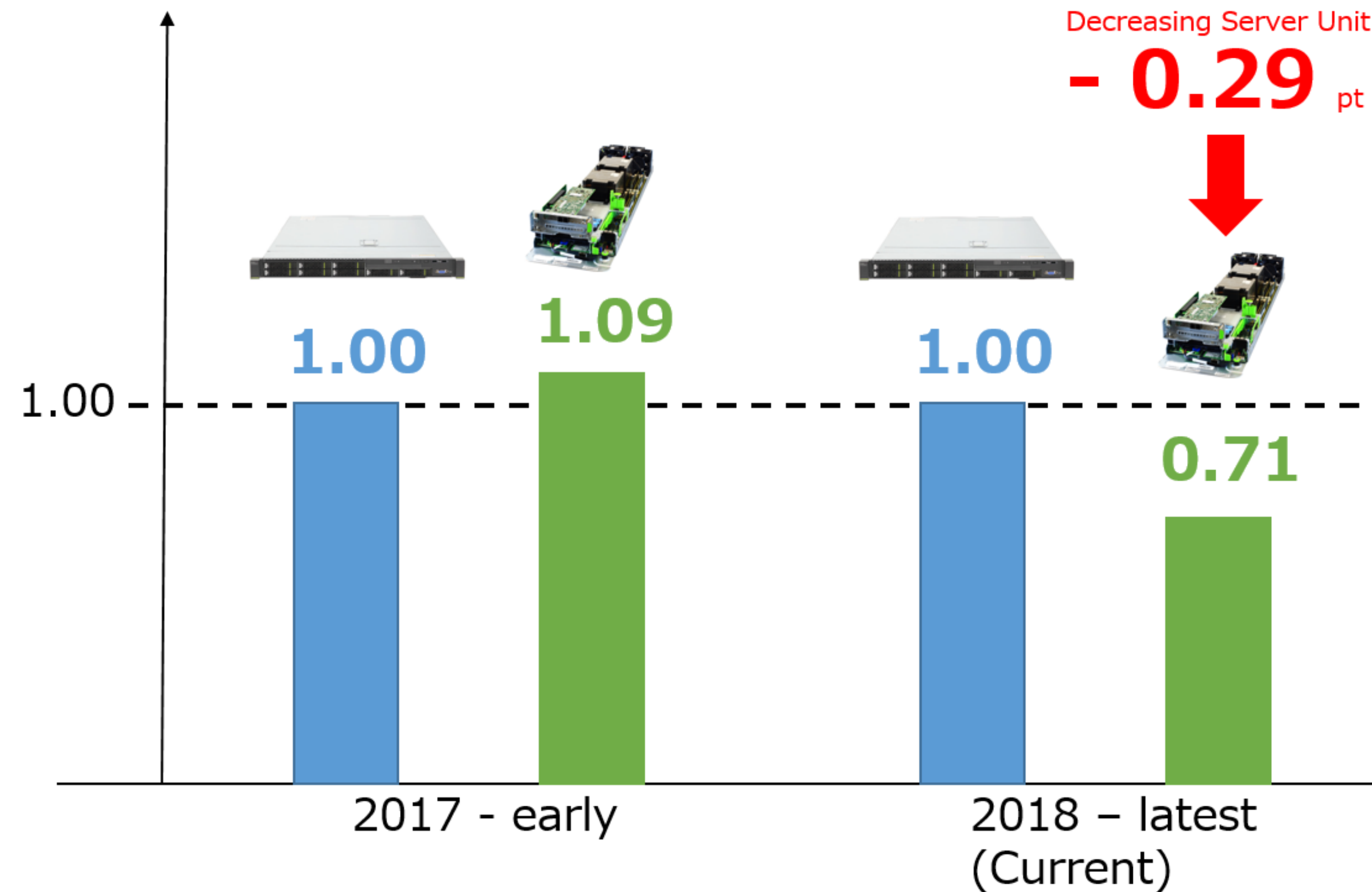
Price Scale
(Based on EIA19 as 1.00)

Server Unit Cost



Price Tips

- Mature OCP market
- Optimization of cost structure
- Improvement of negotiation

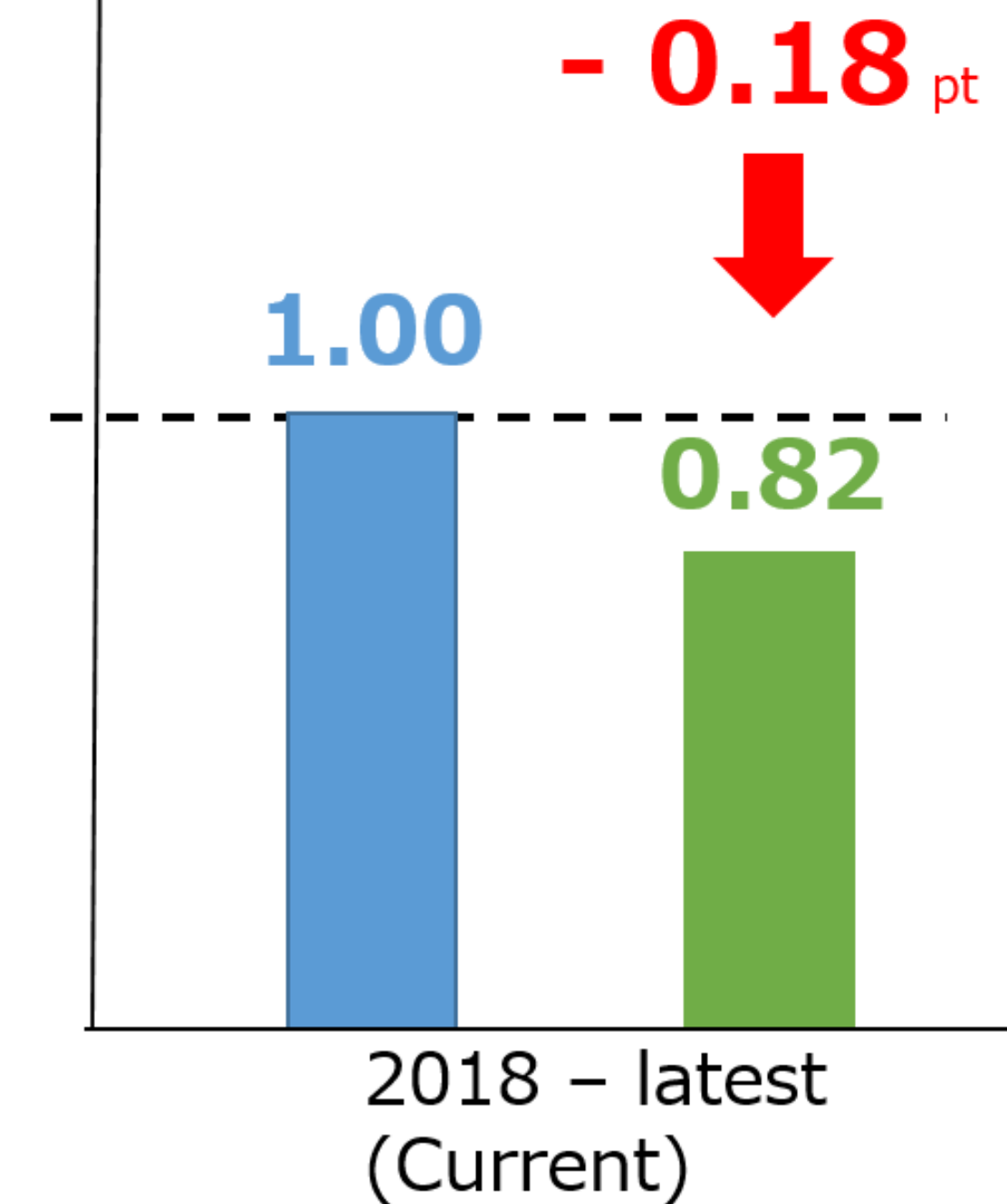


#SOURCE: Yahoo! JAPAN

Rack Cost

Rack Cost including

- Server / Rack / PowerShelf / Cable / L11-expenses



6

How? – CAPEX Saving

1. Tight Relationship

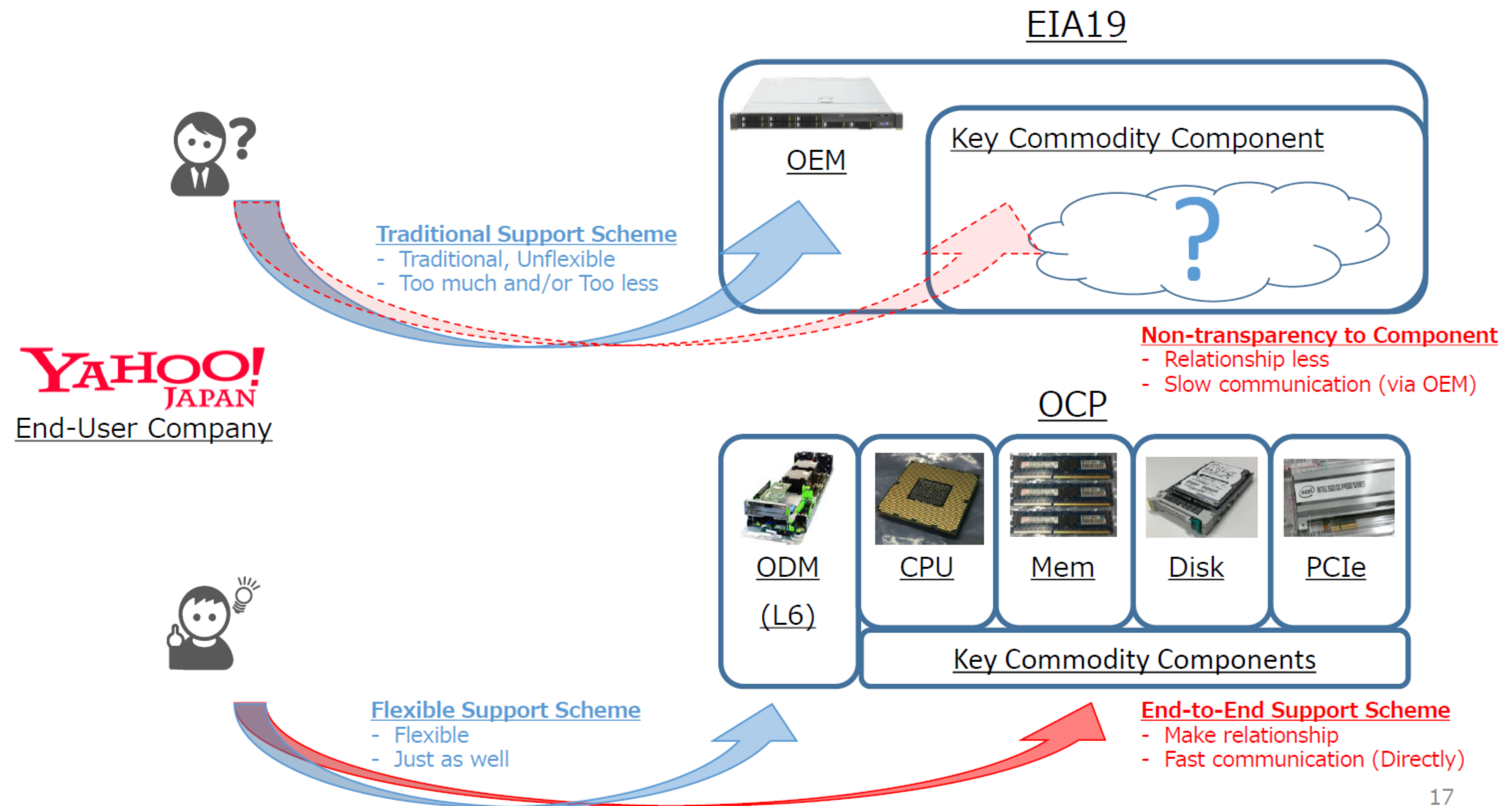
Can approach to ODM/Key Commodity Supplier directory and/or via OCP SP

Distribution/Price control process improved transparency

2. Maturity of JP Market

More OCP vendors entered JP Market ever

More Competition



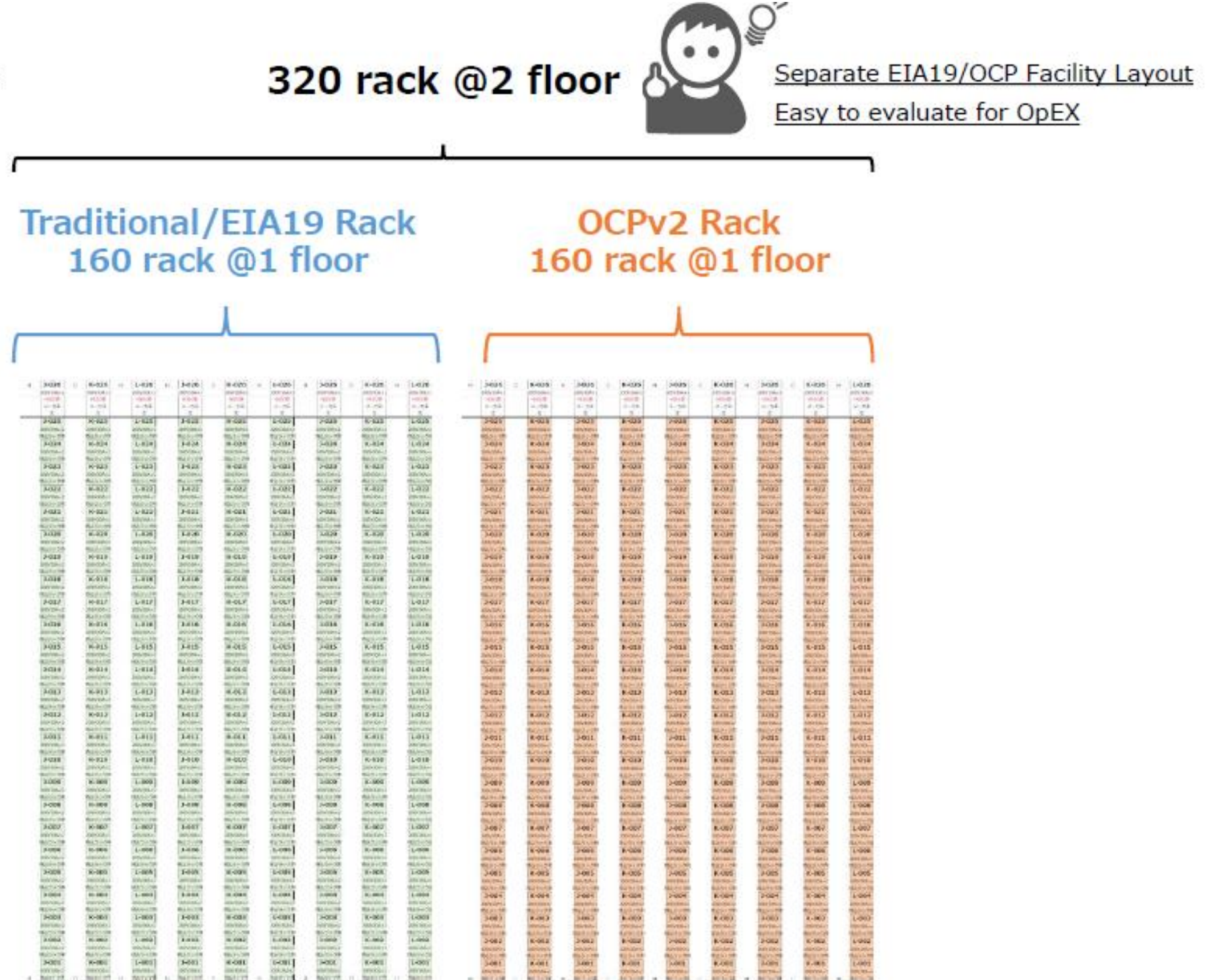
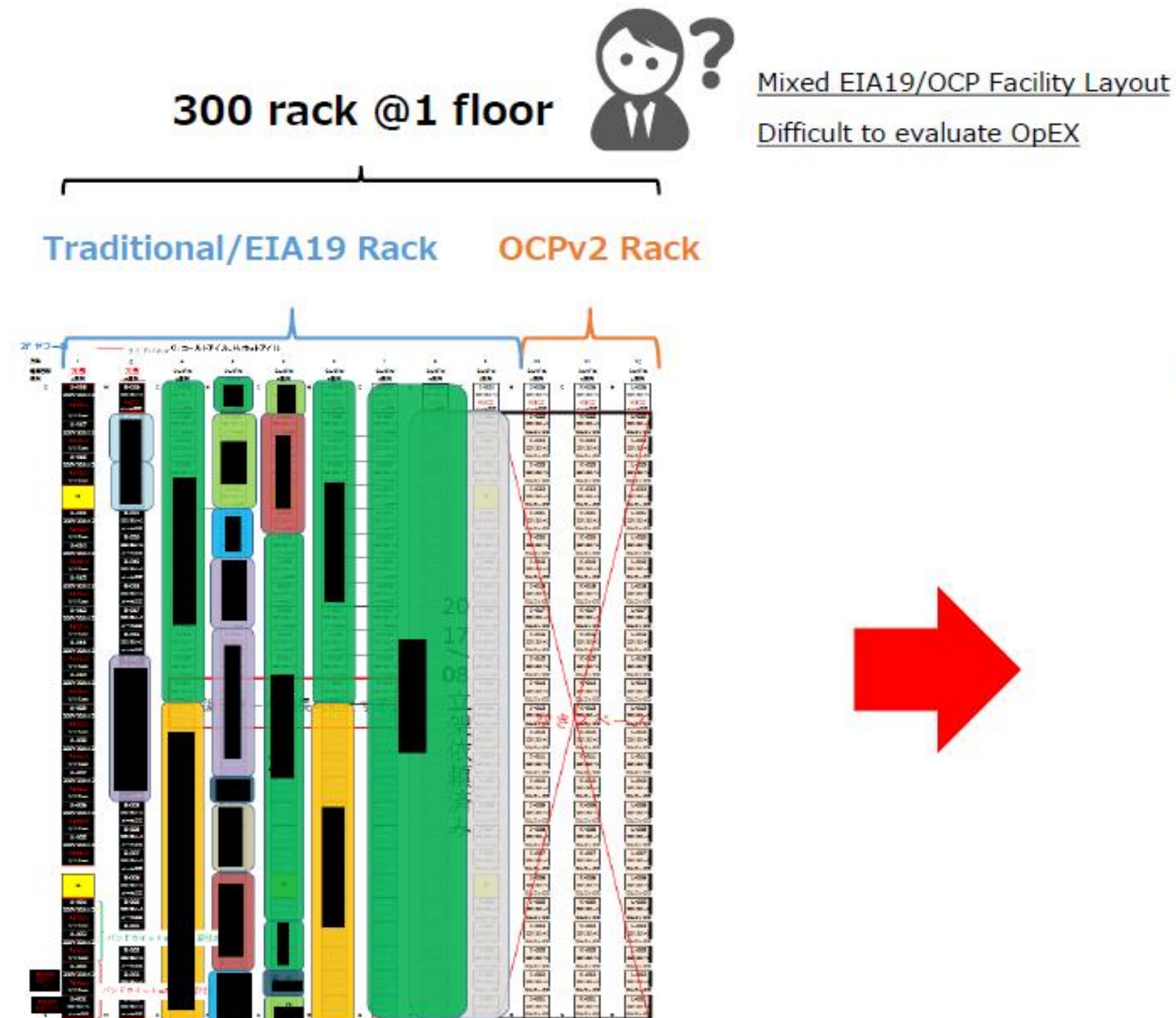
How about? – OPEX Saving

Before

- Facility layout is not considering OCP (Not measureable)

After

- Facility layout is considering OCP (measureable)
- Fair environment to validate OPEX
- Involving facility team



Until Now Facility Layout

Only the difference is EIA19 or OCP

In FY2019 Facility Layout



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Operation/Relationship(1/2)

Break down

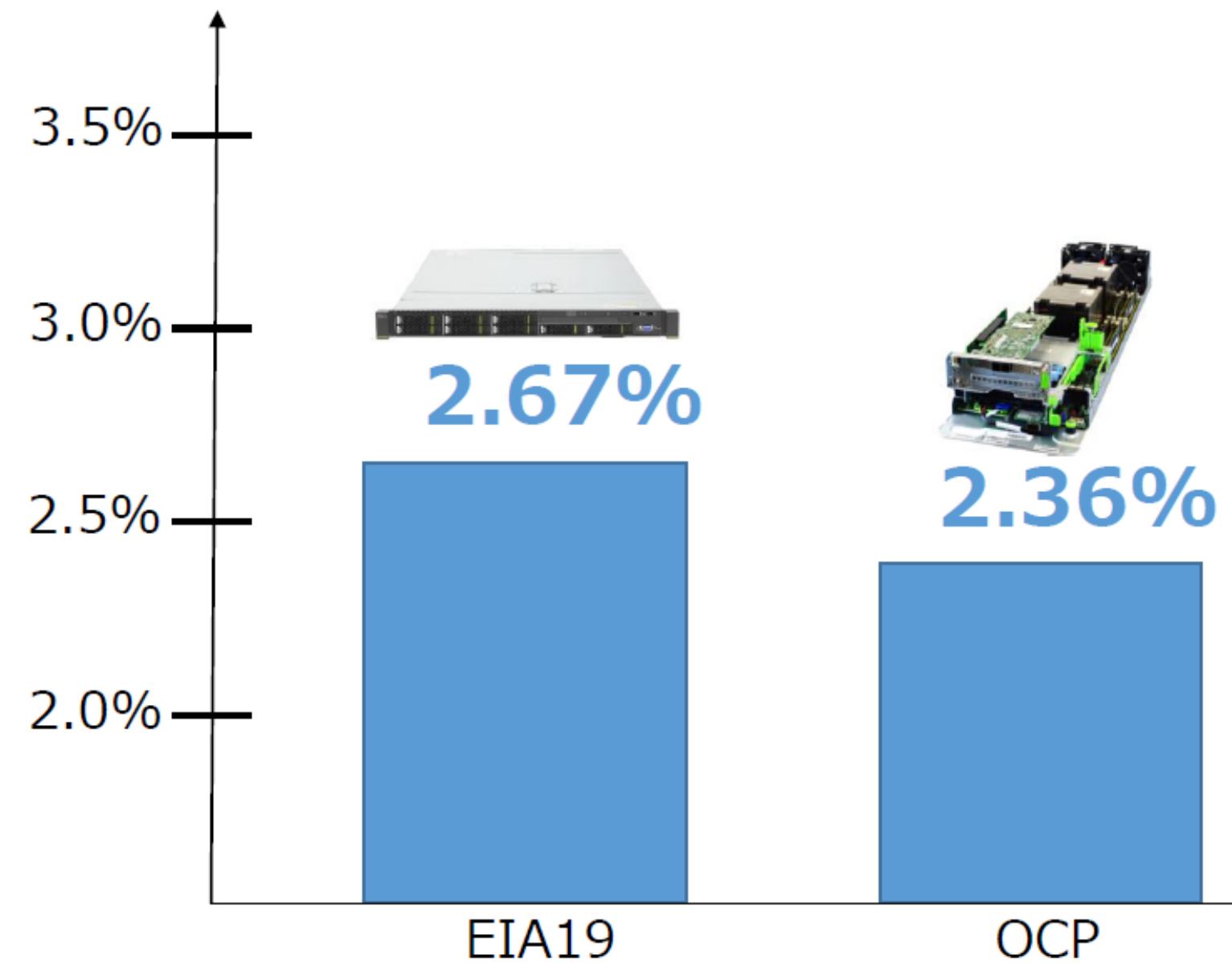


Operational Efficiency

- Reducing Operation Step for Data Center Staff
- Reducing Racking Trouble
- Reducing Compatibility of Server Components
- Improving Failure Rate / Failure Feedback loop

Server Failure Rate

% of Reports Count Rate
(n = Over 1,000)



#SOURCE: Yahoo! JAPAN

Analysis Overview

YAHOO!
JAPAN

RMA



Feedback Process
- Limited / Non Flexible
- Non Transparency
- Non Reachable to Key Components Vendor

Feedback

OEM



Feedback Process
- Flexible
- Transparency
- Reachable to Key Components Vendor

Feedback

ODM

Operation/Relationship(2/2)

Break down



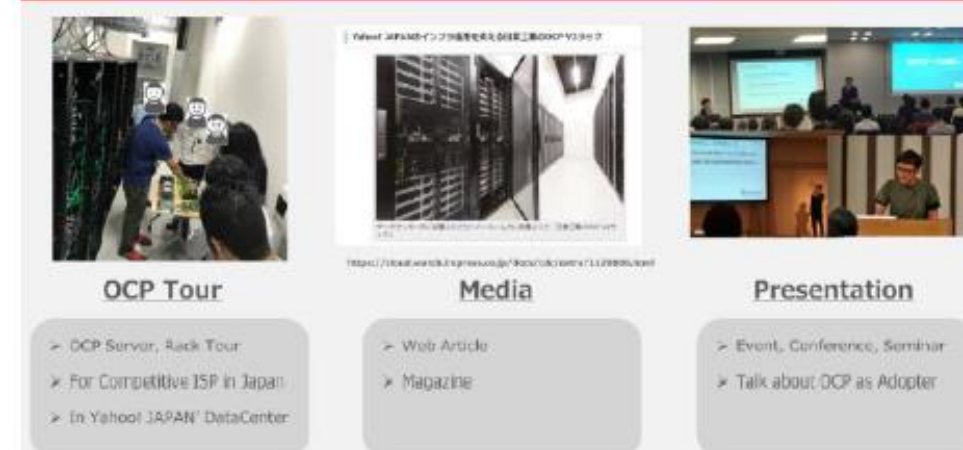
Enhanced Relationship

- To make relationship with Manufacturer side
- To drive communication with each End-user
- To have common view about Infra.

1. End-user

By using OCP, To communicate and discuss with End-users around WW via Summit, Conference, Business.

Yahoo! JAPAN Activity for OCP



Membership Directory
<https://www.opencompute.org/membership/membership-organizational-directory>

2. Manufacturer

EIA19, In case of Procurement

- Other than OEM is not transparent
- Including Proprietary feature
- To communicate is difficult



YAHOO! JAPAN



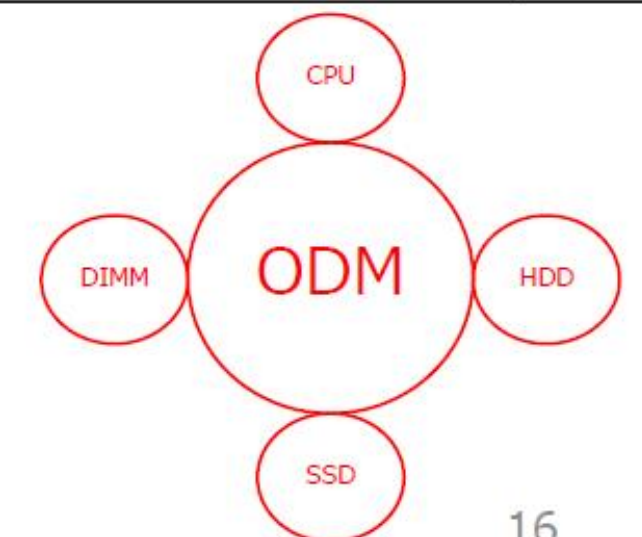
OEM

OCP, In case of Procurement

- ODM, Components is better transparent
- Standardization by OCP
- To communicate is easy



YAHOO! JAPAN



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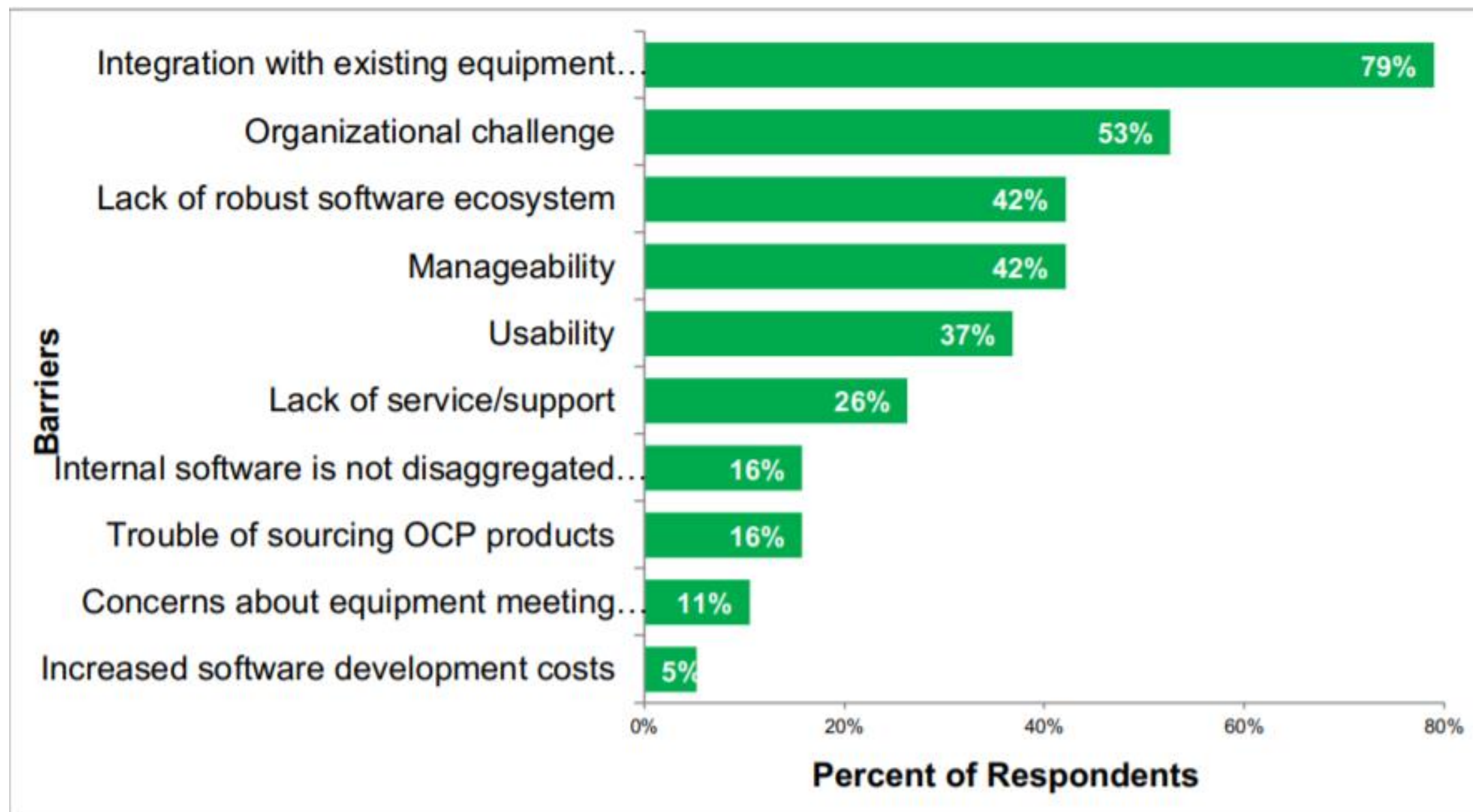
- Delivery / Internal Coordinate / Lead Time

Challenges for OCP adoption

Excellent
Presentation



Barriers of OCP Adoption



<https://www.opencompute.org/files/Final-Delivery-IHS-Markit-OCP-Market-Impact-Study-for-Circulation-18-0227-cg2.pdf>

We have same Barriers

Delivery at our Data Center

- Japan Data Center has specific specification
- Not common with L11 delivery

Internal Coordination

- Need to across the organization for procurement
- Concerned about serviceability/business requirement

Lead Time

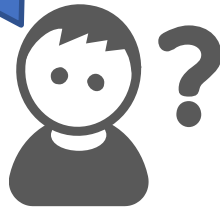
- OCP's delivery takes long time
- Does not meet server demand

Delivery at our Data Center

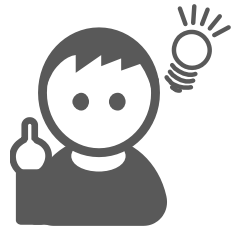
Not enough Space entrance of DC for L11



Some issues
for Delivery



Not optimized delivery route inside DC



Change flexible
Delivery Style

OCP Tips - Delivery Style (L10 / L11)

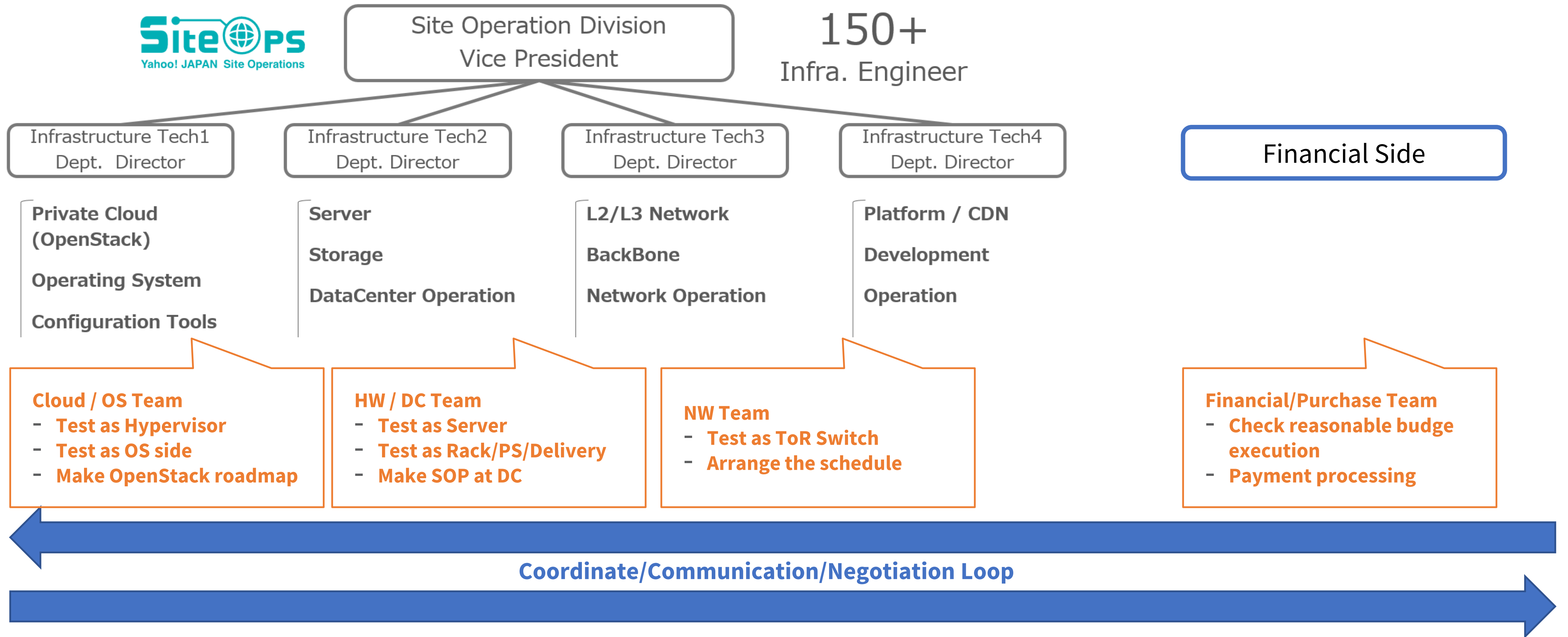
Level 10 (L10) is component level delivery style with the work of assembly on DC.



Level 11 (L11) is rack level delivery style without the work of assembly on DC.



Internal Coordination

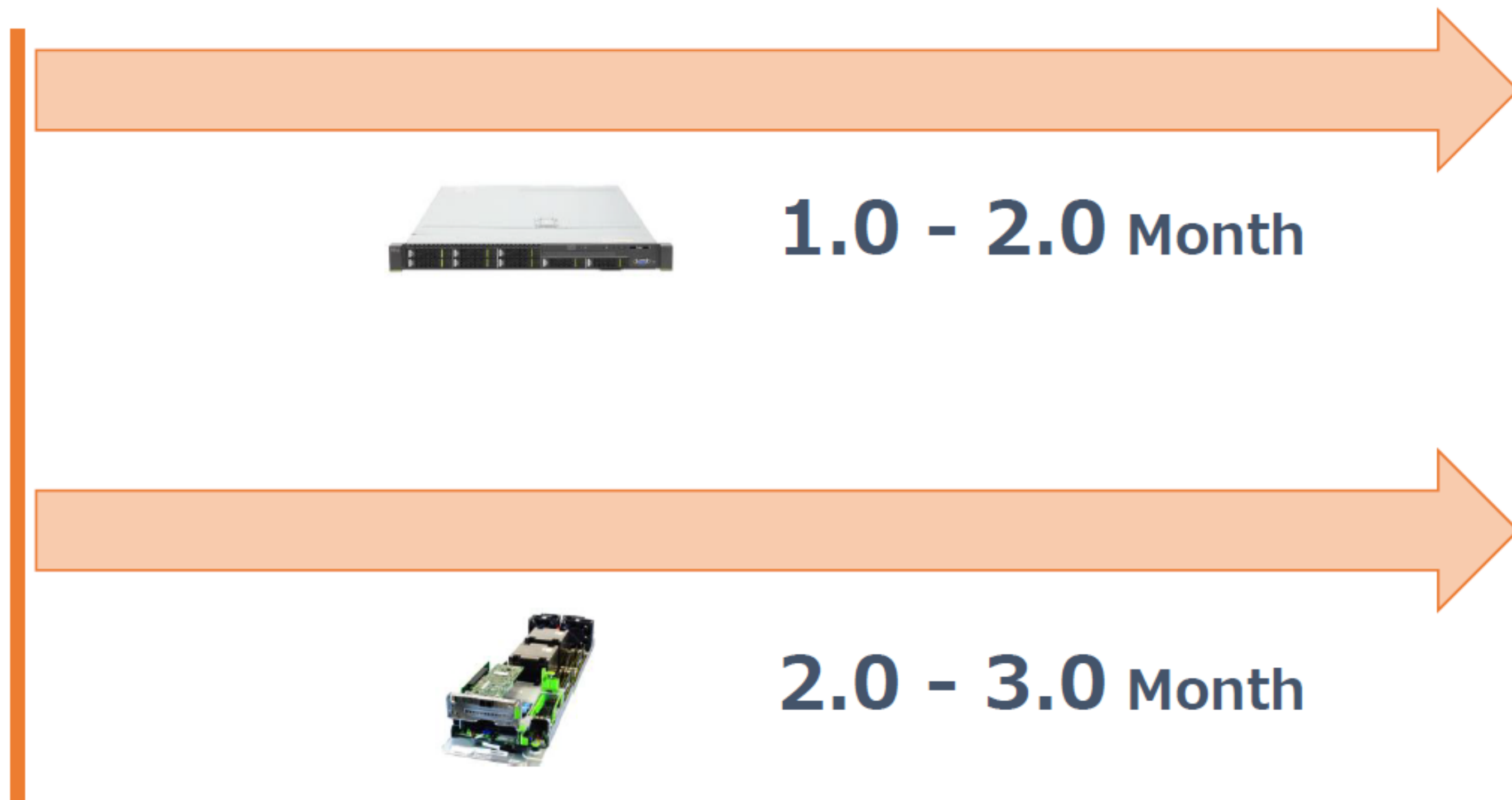


Lead Time

#SOURCE: Yahoo! JAPAN

PO Date

Delivery Date



Delivery at Data Center

Conclusion

We are now

Planning to expand OCP Infra.

- ─ Advantage of CAPEX Cost / Operation
- ─ Plan to estimate OPEX with FY2019 Facility
- ─ Improving relationship with End-user/Vendor

Addressing some challenges for even more OCP adoption

- ─ Delivery / Internal Coordinate / Lead Time is barrier of OCP Adoption
- ─ Continue to deal with these challenge





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OCP Global Summit | March 14–15, 2019

