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Regional  
Community

# OCP TAIWAN DAY

Road to 5G · AI · Edge Computing





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## What's OCP Impact in Yahoo! JAPAN's Infrastructure

▶ Kazuhide Fujimi / Server Infrastructure Architect

**YAHOO!**  
JAPAN



# Agenda

- ▶ Introduction
  - ▶ About Yahoo! JAPAN, Speaker
  - ▶ Overview of OCP at Yahoo! JAPAN
- ▶ Impact of OCP in Yahoo! JAPAN
  - ▶ Cost Saving
  - ▶ Changing Adoption, Procurement
- ▶ Conclusion
  - ▶ Step for OCP adoption



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L11 Working  
@Factory





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Delivery as  
L11 @DC

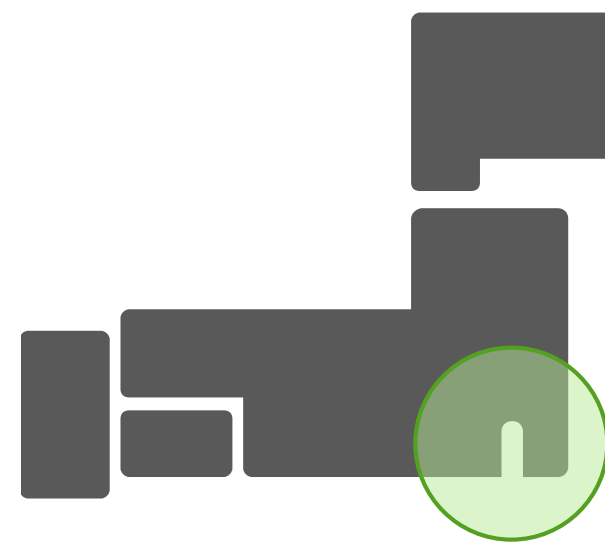




# About Company (1/2)

## 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



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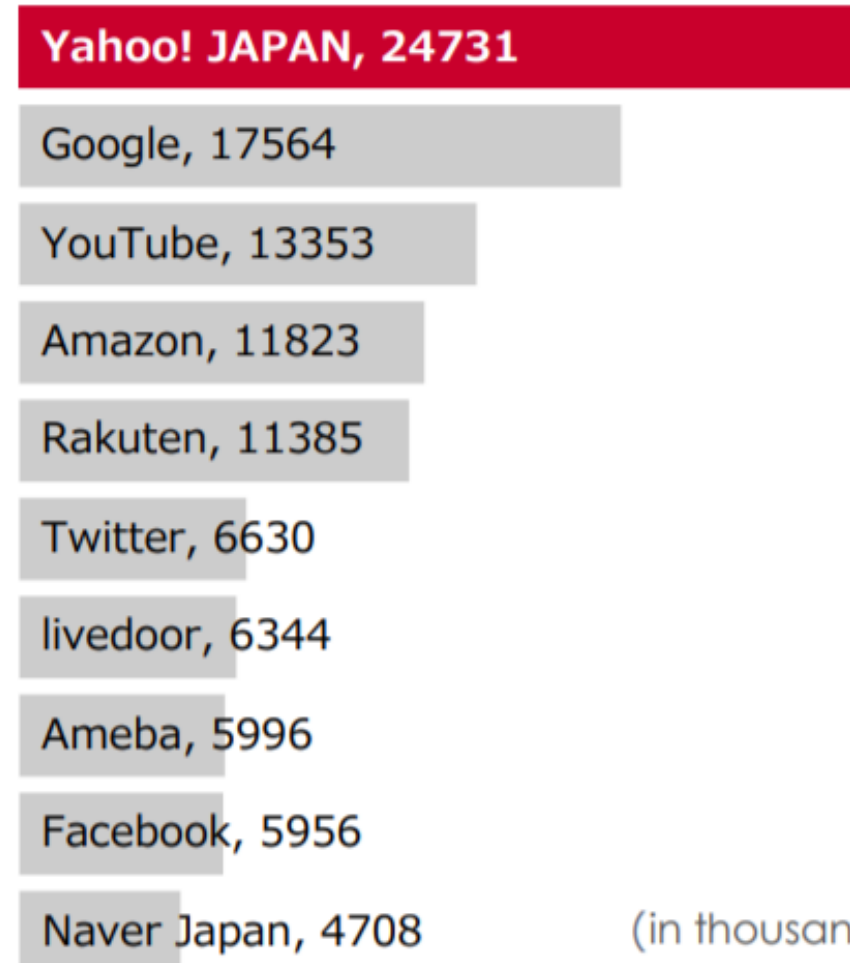
# About Company (2/2)

## 2. Characteristics of Yahoo! JAPAN

one of the largest user volume in Japan



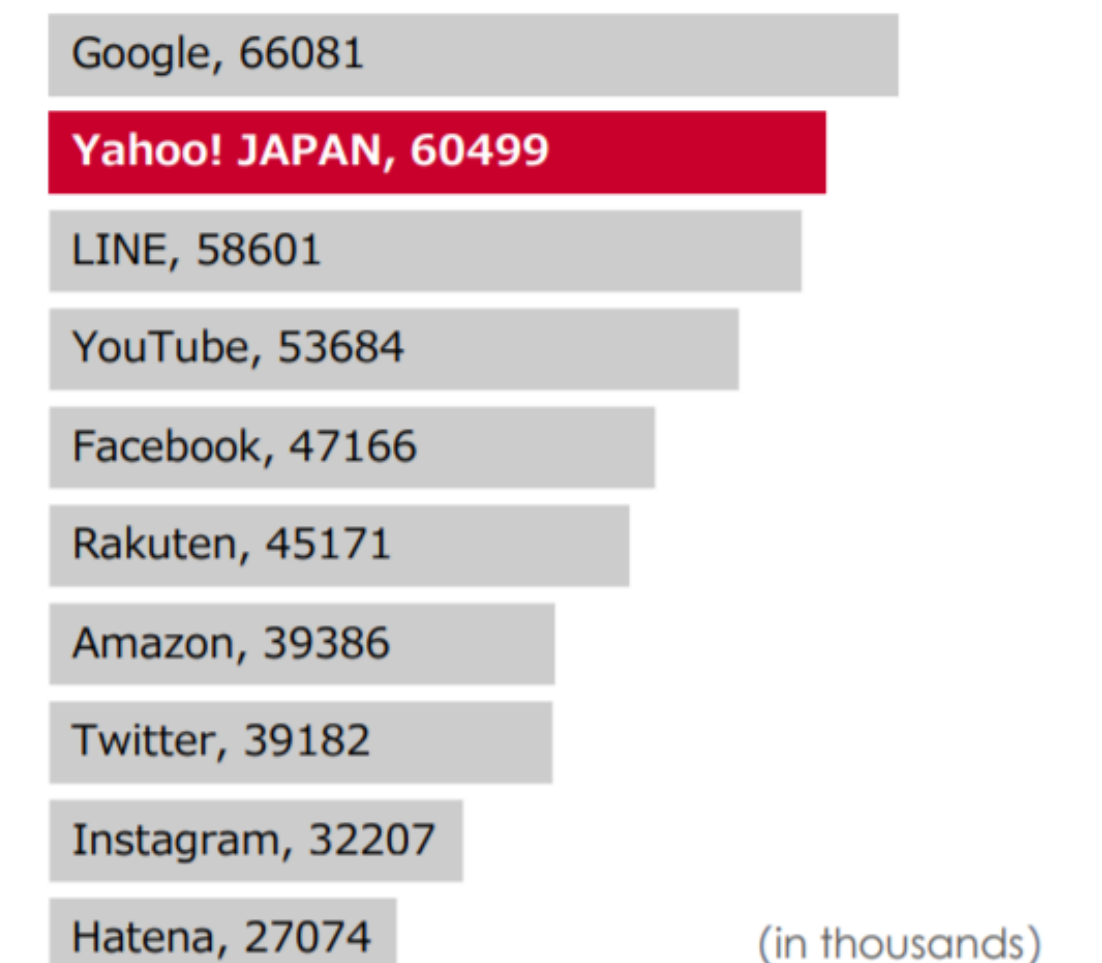
PC users



(in thousands)



Smartphone users



(in thousands)

\*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".



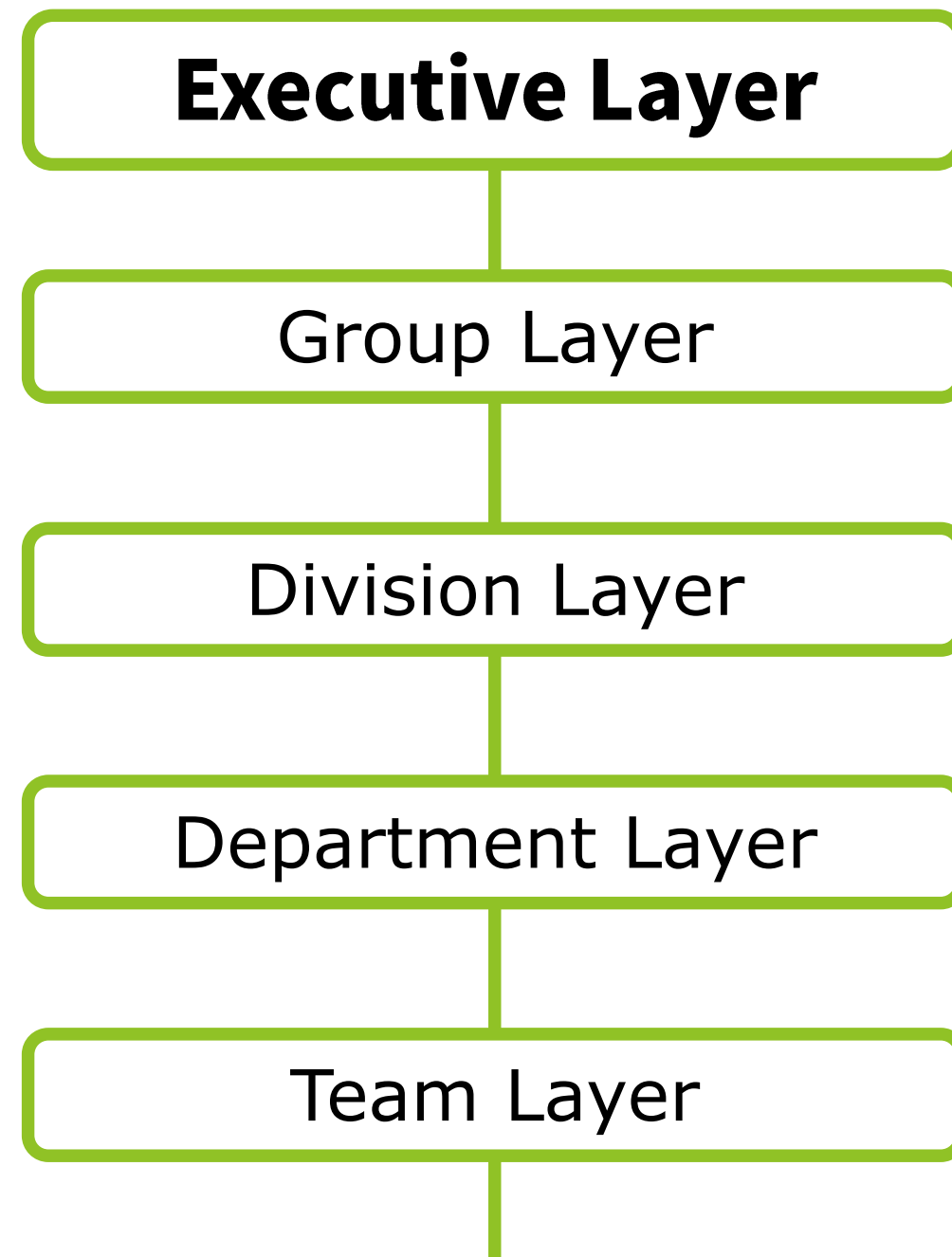
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# Speaker

Simplified organization overview of Yahoo Japan Corporation



Kazuhide Fujimi (me) in HW/DCO Team

SiteOps Division manages all of Production Infrastructure of YJ!



Site Operation Division  
Vice President

150+  
Infra. Engineer

Infrastructure Tech1  
Dept. Director

Infrastructure Tech2  
Dept. Director

Infrastructure Tech3  
Dept. Director

Infrastructure Tech4  
Dept. Director

Private Cloud  
(OpenStack)  
Operating System  
Configuration Tools

Server  
Storage  
DataCenter Operation

L2/L3 Network  
BackBone  
Network Operation

Platform / CDN  
Development  
Operation



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

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# Overview of OCP at Yahoo! JAPAN (1/2)

2016 ● Adoption Leopard (OCPv1)

2017 ● Adoption Leopard (OCPv2)

2018 ● Adoption Leopard/TiogaPass (OCPv2)

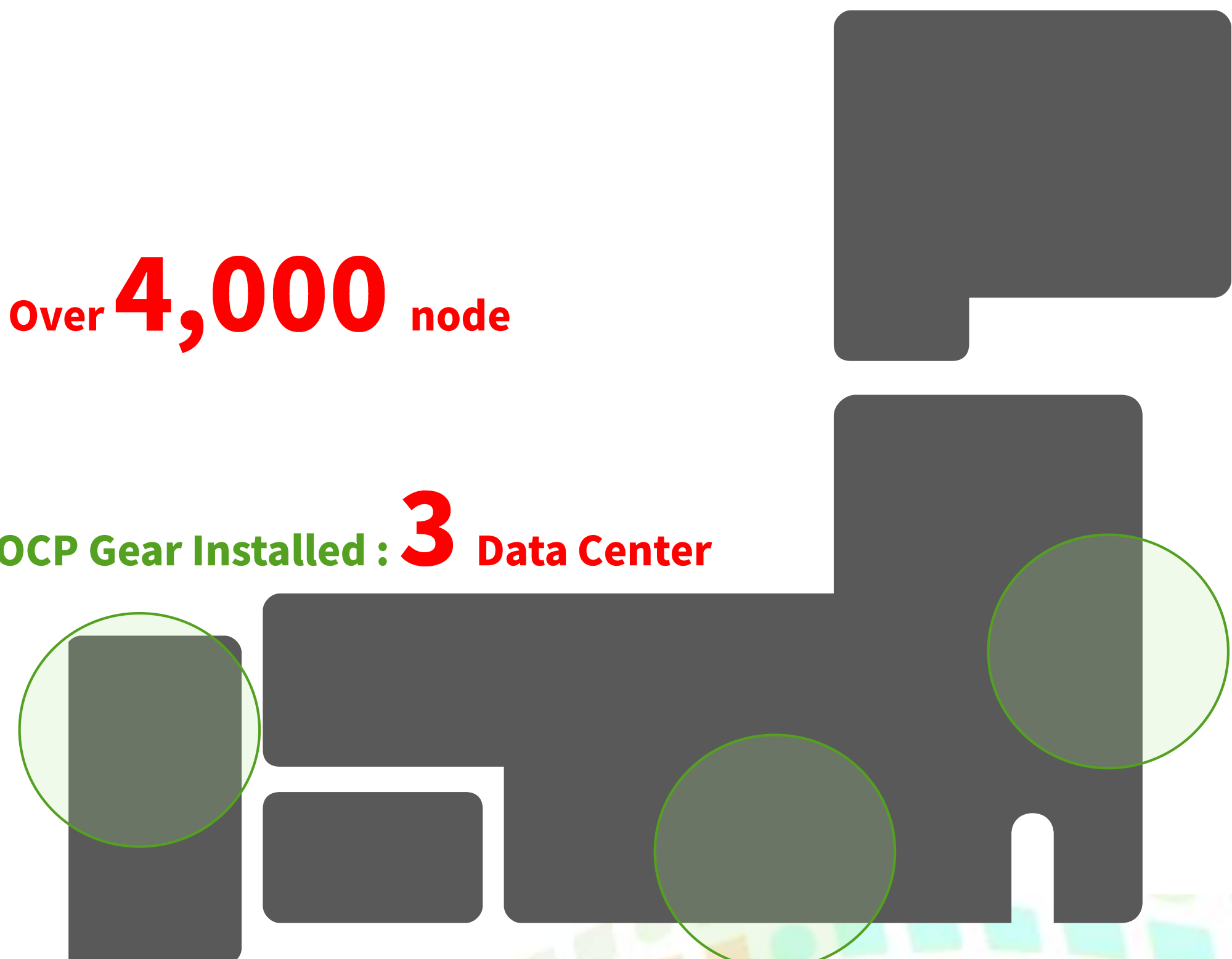
2019 ● Adoption for TiogaPass (OCPv2)  
- Planning to ESA

OCP experience: **4** year



Total Server Node : Over **4,000** node

OCP Gear Installed : **3** Data Center



## OCP TAIWAN DAY

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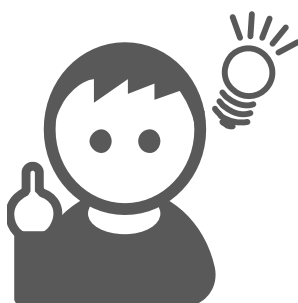


# Overview of OCP at Yahoo! JAPAN (2/2)

Server Node Qty

Server Volume  
2016 - 2018 <  
**2019Q1&Q2**

- Impact of OCP
- Cost Saving
  - Changing Adoption & Procurement



Fiscal Year \*

2016      2017      2018      2019Q1&Q2

\* YJ's fisical year starts in April. Q1 is April to June. Q2 is May to July.



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  - ▶ Cost Saving
  - ▶ Changing Adoption & Procurement
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DOA Test  
@DC





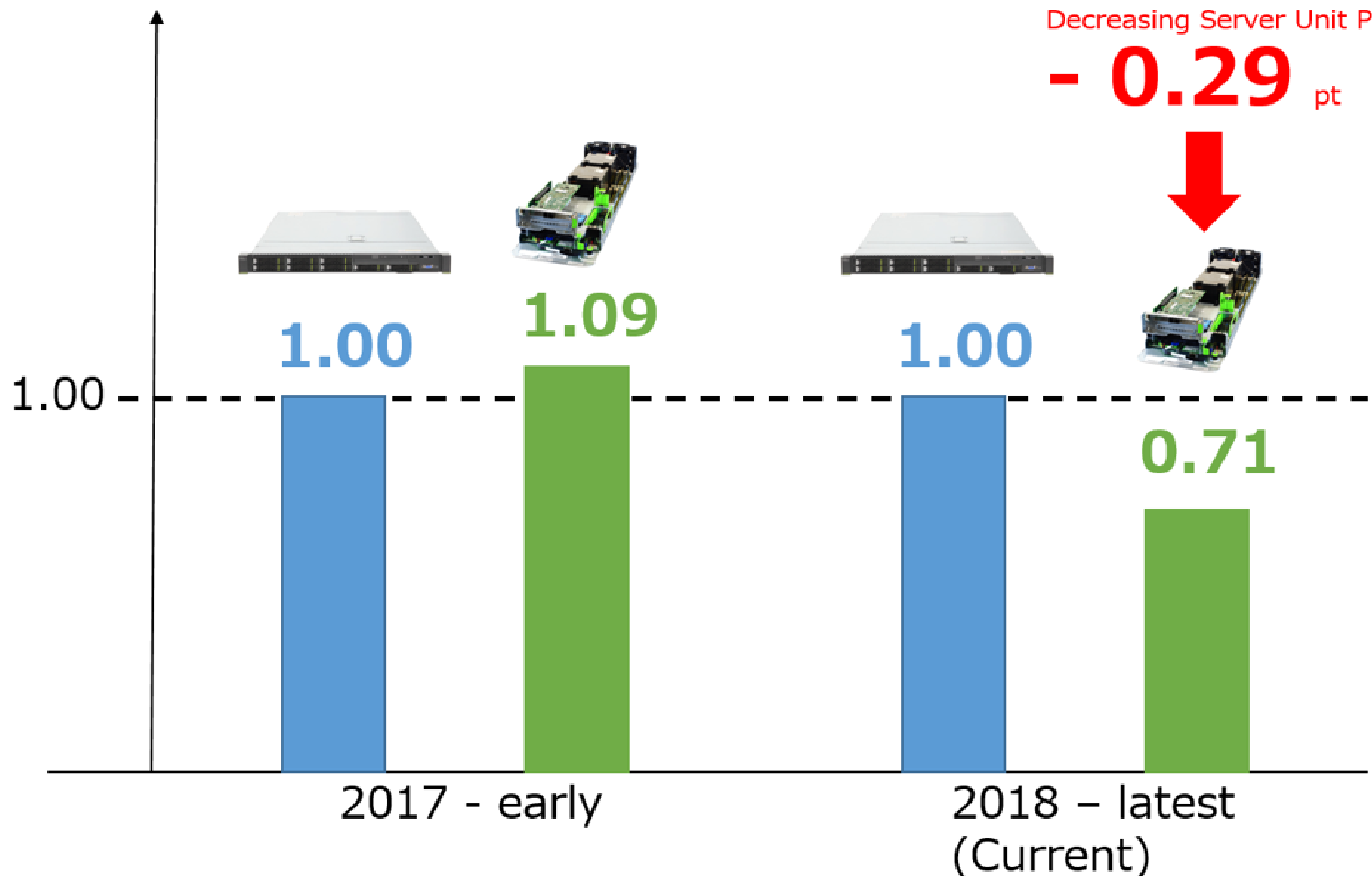
# Impact – Cost Saving

Price Scale  
(Based on EIA19 as 1.00)

## Server Unit Cost

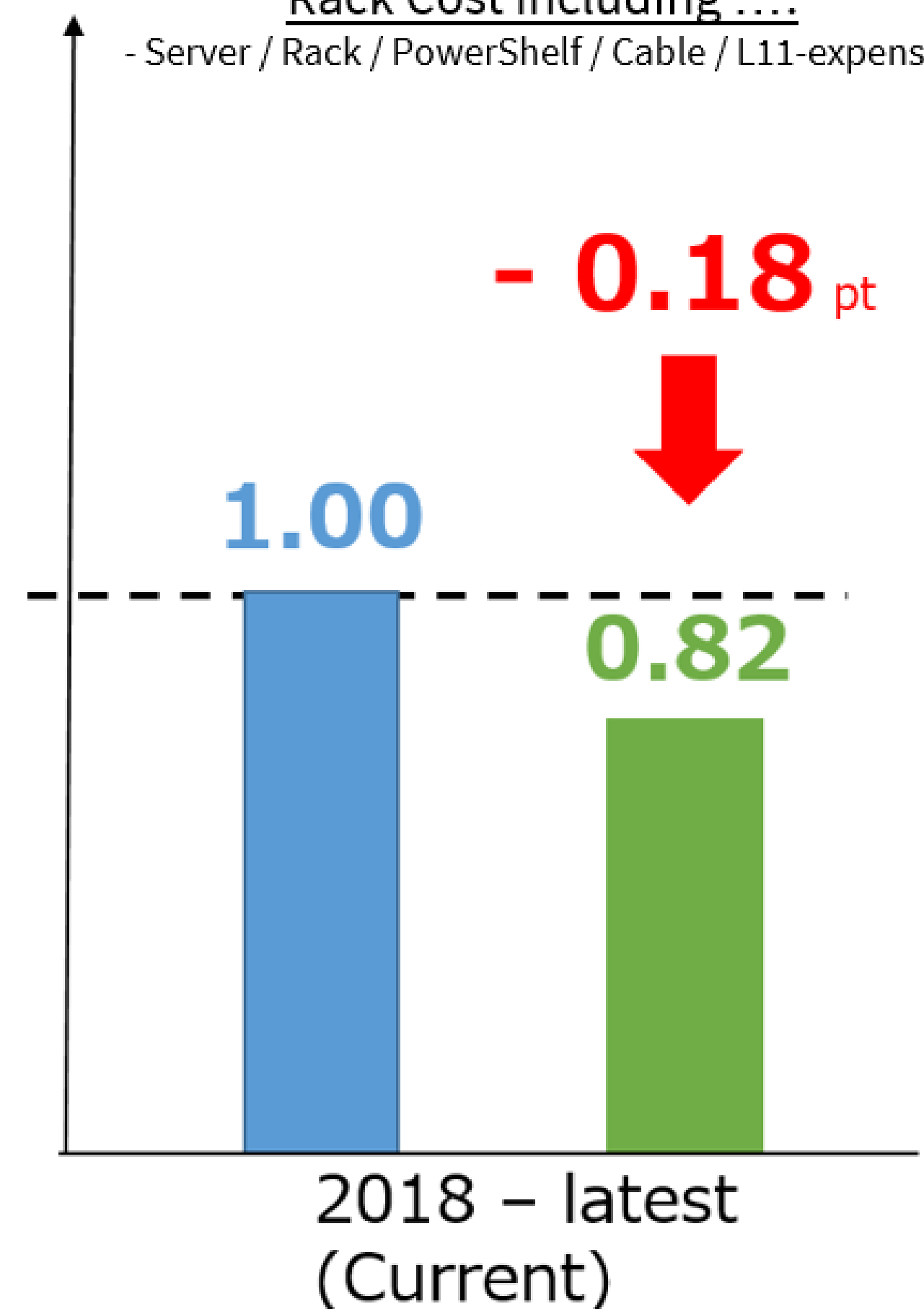


- Price Tips
- Mature OCP market
  - Optimization of cost structure
  - Improvement of negotiation



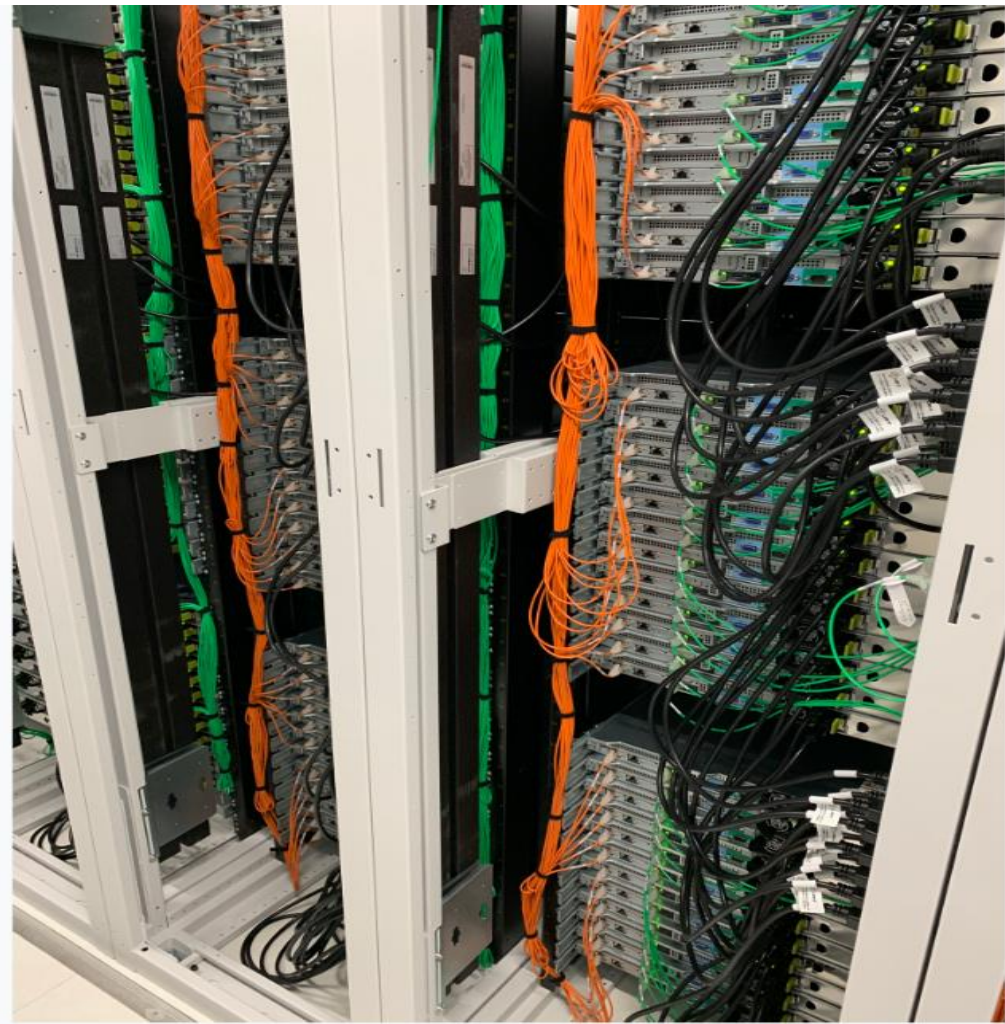
## Rack Cost

Rack Cost including ....  
- Server / Rack / PowerShelf / Cable / L11-expenses





# Impact – Changing Adoption & Procurement



**Delivery**

**Rack Front**

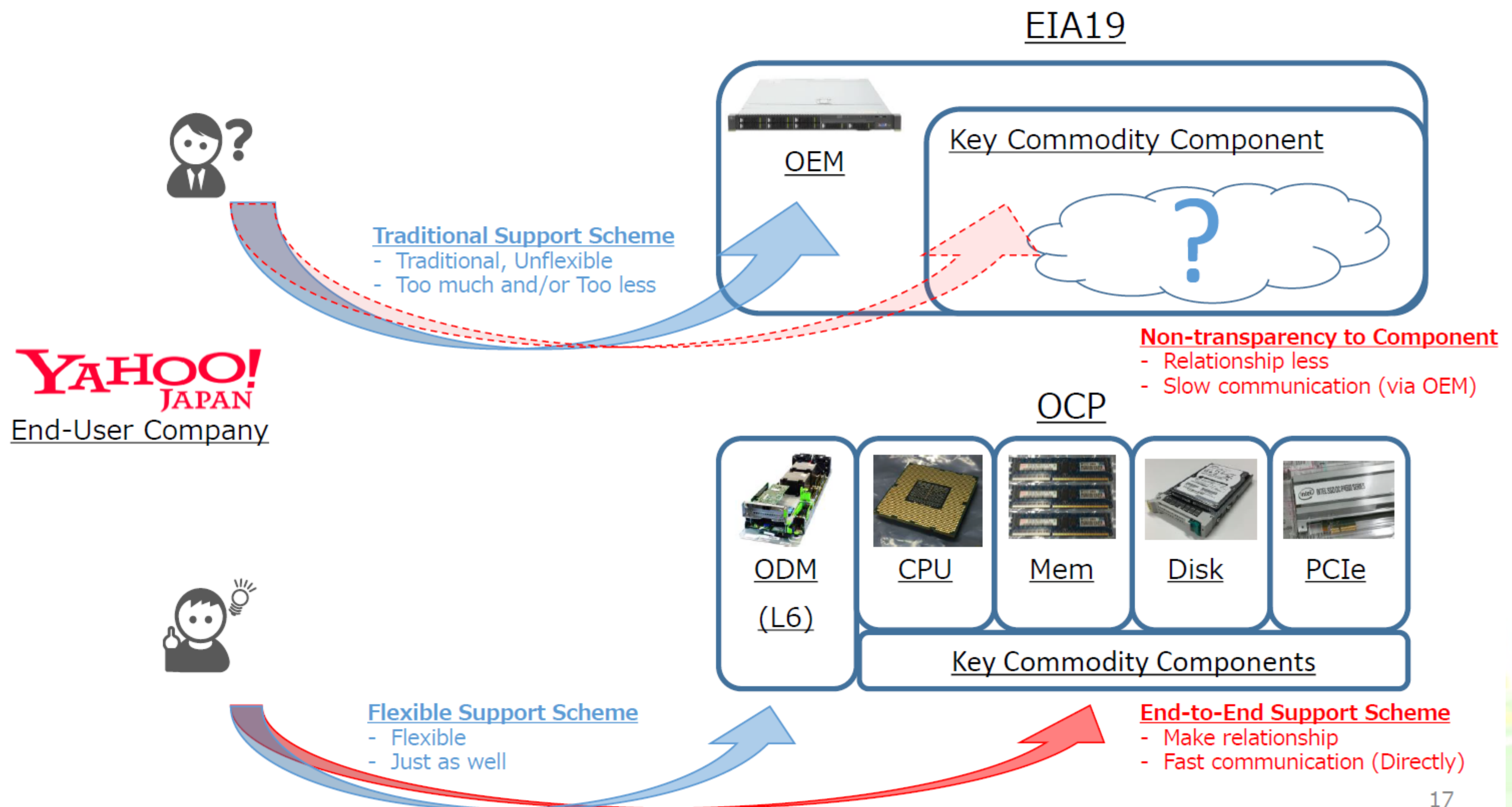
**Rack Rear**

**Operation**





# Impact – Changing Adoption & Procurement



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Installed  
@Factory





# Conclusion – Step for OCP Adoption (1/3)

19 Server over **90 %**

OCP Server under **10 %**



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# Conclusion – Step for OCP Adoption (2/3)

Next Step for OCP adoption

## Lead Time of OCP Gears (Server, Rack...)

#SOURCE: Yahoo! JAPAN

PO Date

Delivery Date



**1.0 - 2.0 Month**

- LT is advantageous. Because of the OEM is very commodity in JP market.
- Distribution volume is large, Inventory is large with each L6/Key Components.
- OEM is delivered as L10. Rack, Networks and Others is separate delivery.



**2.0 - 3.0 Month**

- LT is disadvantageous. Because of the OCP is not very commodity in JP market.
- Inventory is zero with each L6/Key Components. Manufacturing is required.
- OCP is delivered as L10 or L11. Both are delivered at the same time.
  - For L10, To assemble on Data Center.
  - About LT of L10 is 8 week. (like "Drop shipping")



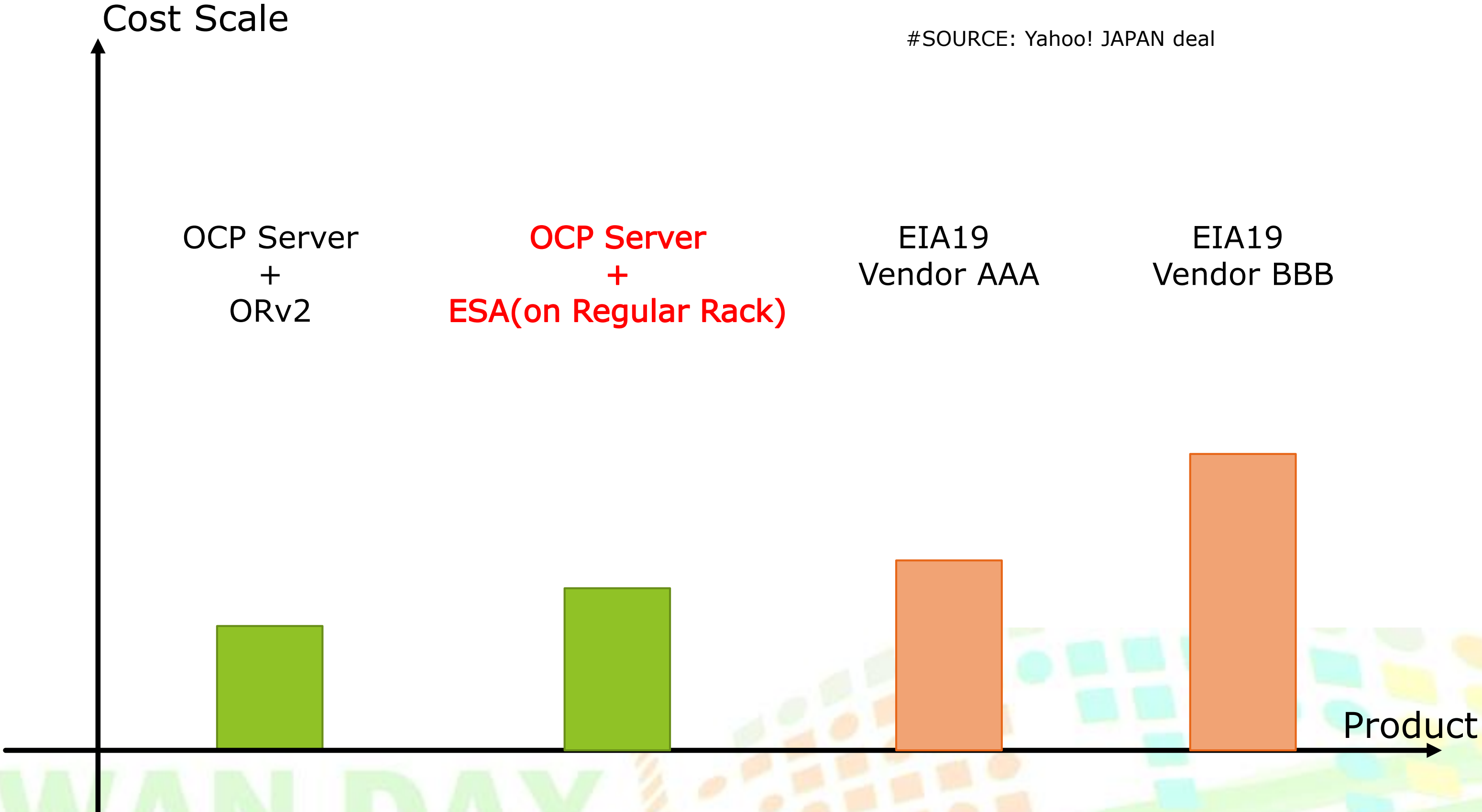
Delivery at YJ! DC



# Conclusion – Step for OCP Adoption (3/3)



## OCP Rack Space Restriction



<https://www.opencompute.org/products/267/mitac-esa-v1-rail-kit>



# Conclusion

## ▶ Yahoo! JAPAN OCP

- ▶ Over 4,000 node, 3 Data Center, 4 year experience

## ▶ Impact of OCP

- ▶ Much Cost Saving : Server Unit is 29%, Rack cost is 18%
- ▶ Procurement Approach : OEM Vendor -> ODM & Commodity Supplier

## ▶ Step for OCP Adoption

- ▶ Expanding OCP adoption => “Lead Time” and “Rack Space”







**EOP**



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