

OCP JAPAN MEET UP

JUNE 20, 2017

TOKYO



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Summit Numbers



Marketplace



Project Updates



Research

Summit Stats



Over 2,800 Attendees

23%



YoY Increase in
Total # of
Attendees

23%



YoY Increase in
International
Attendees

53%



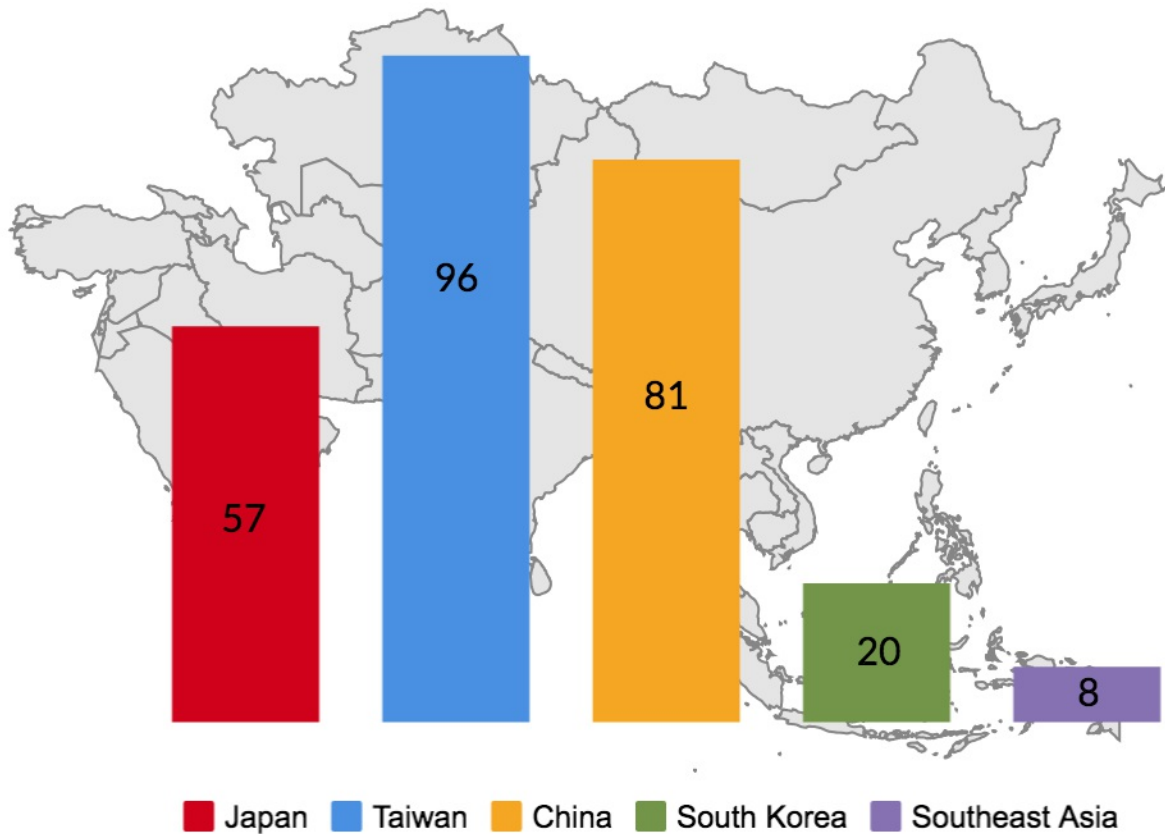
1st Time
Attendees

89%



Attended Both
Days of the
Summit

APAC Numbers



Social Media and Member Highlights



≈ 28M Social Media Impressions
over 2 Days



Star of the Summit and over 670 +
views on Youtube



inspur

lenovo

New APAC Members



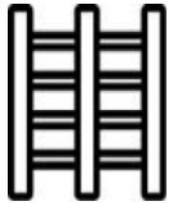
Current Activities within each Project

Certification & Interoperability	Define the RA program, recommend 'gold' hardware, and set standards for testing and reporting to the community.
Data Centre	Defining recommendations & requirements for data centres to install OCP hardware and maximise the benefits of the architectures.
Hardware Management	Embracing the Open BMC source tree & organising for better usage by the community. Goal is to promote common FW source across the projects.
HPC	Inactive right now (project lead started a company and received startup funding).
Networking	Strong portfolio of disaggregated, open sourced leaf/spine switchgear using common SW and FW ingredients. Extending to wireless hardware both indoor and outdoor.

Current Activities within each Project

Rack & Power	Improvements to OpenRack mechanical and power specs. Adding accessories for ease adoption.
Server	Improving quality & diversity of design contributions. Subgroups: Mezz 3.0 standard development, Open sourced design tools.
Storage	Defining new HDD API optimized for cloud storage. Contributions of PCIe based storage solutions from community.
Telco	Contributions of CG-OpenRack-19 ingredients from the community. Coordination with TIP and CORD.

3 Rack Architectures



OpenRack



CG OpenRack 19



Project Olympus



OpenRack

538mm wide x 48mm IT shelf

1200mm x 600mm frame

12VDC shared power (1,3 bus bars)

Release 2.0 adds 48VDC options

Variety of 1S,2S Intel Xeon and IBM POWER
Compute Nodes available

Variety of Power Densities available
including Liquid Cooled solutions from OCP
Solution Providers



CG OpenRack 19

Designed for Central Offices

NEBS level 3, GR-63-CORE and GR-1089-CORE

FCC and CE class A (safety and emissions/immunity)

19" EIA Frame compatible, 1000mm deep

12VDC shared power

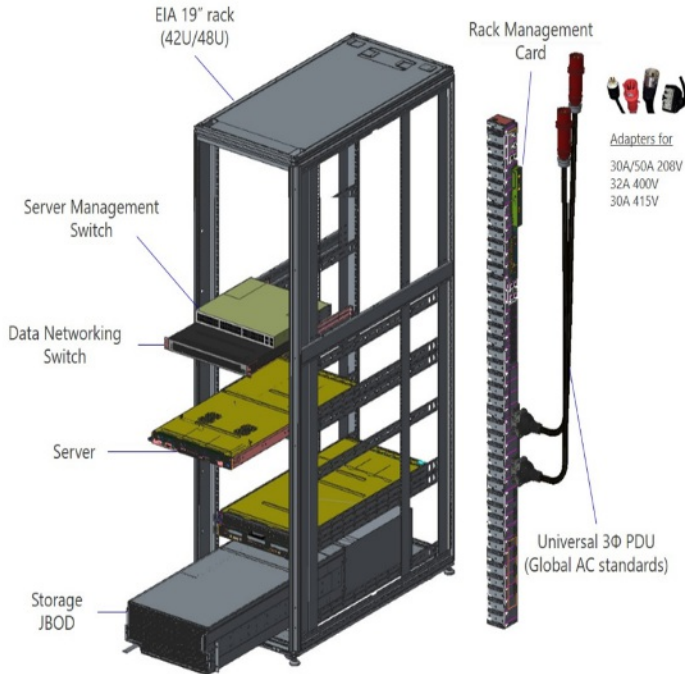
Hot plug, blind mate sleds

Half and Full width sled options

4ea optical N/W connections per sled



Project Olympus



19" EIA Frame compatible

1200mm deep

AC power w/resiliency options

Phase balancing rectifier

Hot plug, blind mate sleds

Worldwide EMC, Safety certs
"OPEN" supply channel

Marketplace Demo



Commercially Available OCP Gear in One Place

Easy to search Contributions & Design Files

March 1st – April 28th > 2,400 web sessions

<http://opencompute.org/products>

Test Results & Research Findings



Test Results



OCP Trial Results for Telco Infrastructure

<http://www.opencompute.org/wiki/Summit/US17#Telco>



OpenStack Rack

42			
41			
40			
39			
38			
37			
36			
35			
34			
33			
32			
31			
30	C	C	C
29			
28	C	C	C
27			
26	C	C	C
25			
24	Reserved for Switch 100		
23	Reserved for Switch 100		
22	Power Shelf		
21	Reserved for Switch 100		
19	Reserved for Switch 100		
18	JBOD		
17			
16	O	M	O
15			
14	O		O
13			
12			
11	JBOD		
10			
9			
8			
7			
6			
5			
4			
3			
2			
1			

- Private Cloud
- Open Rack (21")
- 9 Compute Nodes
E5-2660 V4*2ea
Memory 256GB
SSD 300GB*2ea
- 5 Ceph Nodes
E5-2690 V4*2ea
Memory 256GB
M.2 300GB
SSD 1T*6ea

Hadoop Rack

42			
41			
40			
39			
38			
37			
36			
35	JT		NN
34			
33	DN		DN
32			
31	JBOD		
30			
29	DN		DN
28			
27	JBOD		
26			
25	Reserved for Switch 100		
24	Reserved for Switch 100		
23	Power Shelf		
22	Reserved for Switch 100		
21	Power Shelf		
20	Reserved for Switch 100		
19	Reserved for Switch 100		
18	JBOD		
17			
16	DN		DN
15			
14	JBOD		
13			
12	DN		DN
11			
10	JBOD		
9			
8			
7			
6			
5			
4			
3			
2			
1			

- Big Data Analytics
- Open Rack (21")
- 10 Hadoop Nodes
E5-2660 V4*2ea
Memory 256GB
SSD 450GB*2ea
- 4 JBODs
HDD 4TB*12ea

R&D Rack

42			
41			
40			
39			
38			
37			
36			
35	C		C
34			
33	C	C	C
32	C	C	C
31	C	C	C
30	C	C	C
29			
28	C	C	C
27			
26			
25	40G Switch		
24	40G Switch		
23	Power Shelf		
22	Power Shelf		
21	1G Switch		
20	1G Switch		
19			
18			
17			
16	C	C	C
15	C	C	C
14	C	C	C
13	C	C	C
12	C	C	C
11	C	C	C
10	C	C	C
9	C		C
8			
7			
6			
5			
4			
3			
2			
1			

- OpenStack/SDN, NFV Container
- Open Rack (21")
22 Compute Nodes
E5-2660 V4*2ea
Memory 256GB
M.2 300GB

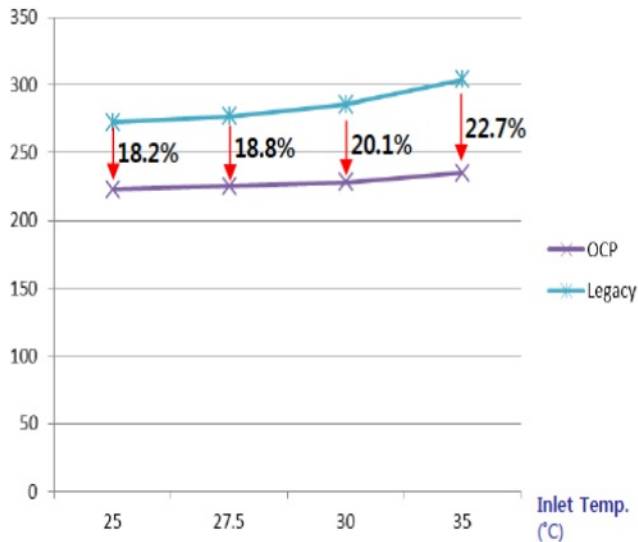
Test Results

Compared power consumption of OCP and Legacy system under different room temperature and workload



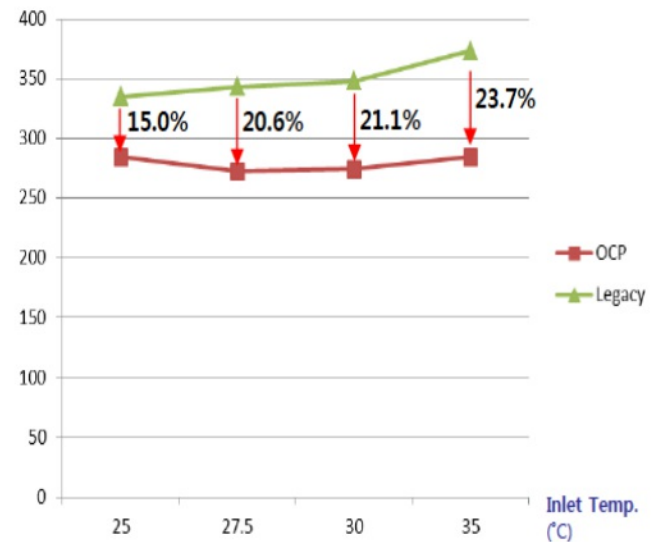
Power Consumption
(W/Server)

Workload 20%



Power Consumption
(W/Server)

Workload 50%



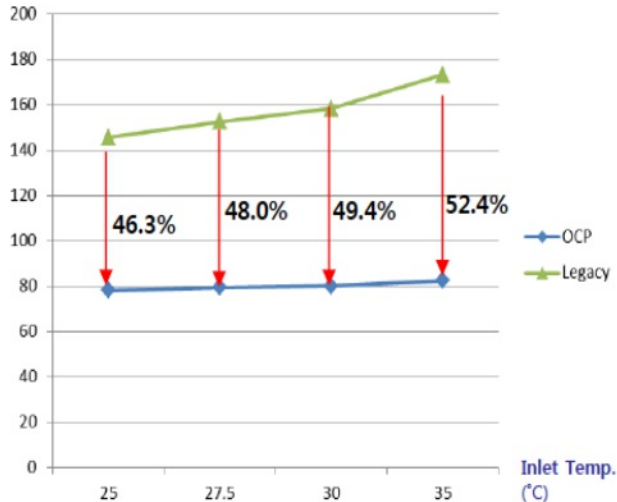
Test Results

In idle state, OCP server bettered legacy server under all the room temperatures



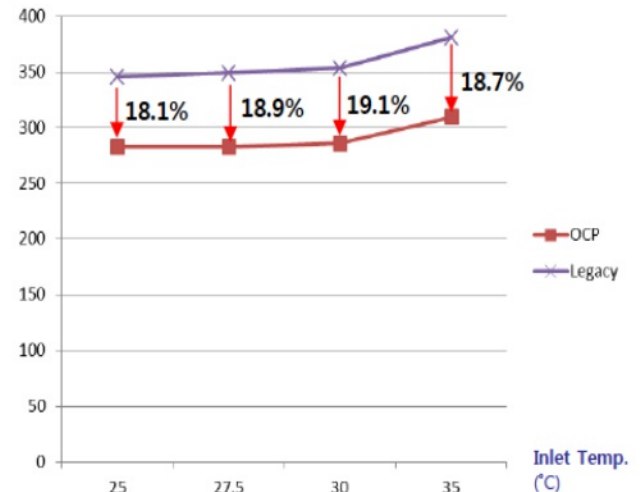
Power Consumption
(W/Node)

Workload 0%



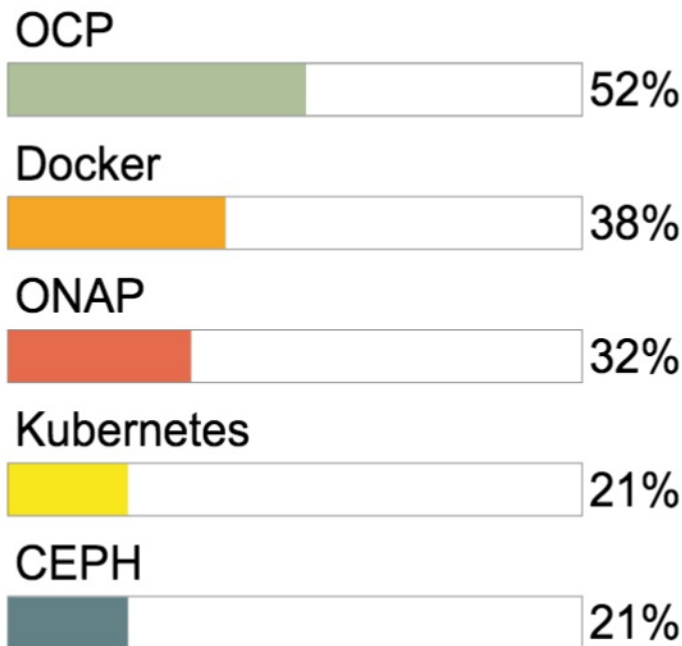
Power Consumption
(W/Node)

Workload 100%



OPNFV Survey

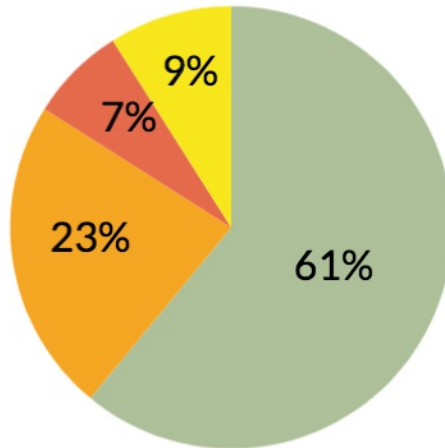
Which upstream projects are most important to the success of OPNFV?



Source: Heavy Reading Service Provider Survey, June 2017 n=97

CSP & Carrier Survey

Are vendors like HPE and Oracle capable of building Telco-class cloud networks?



■ Maybe Someday (61%) ■ Absolutely (23%) ■ Who Knows (7%) ■ No Way (9%)

Source: Light Reading Survey, 2017

Research Articles



451 Research

OCP for Colo's

<https://451research.com/report-short?entityId=92148&referrer=marketing>



EQUINIX

WHERE OPPORTUNITY CONNECTS

Equinix's OCP Strategy

<http://www.equinix.nl/resources/analyst-reports/451-equinix-research-ocp/?hootPostID=7974d2d38e51db7611f6cc403d0d9e2b>



Thank You