

An abstract graphic on the left side of the image, composed of numerous thin, wavy green lines that swirl and overlap to form a complex, organic shape. The lines are a vibrant green color against the dark blue background.

# Open. Together.



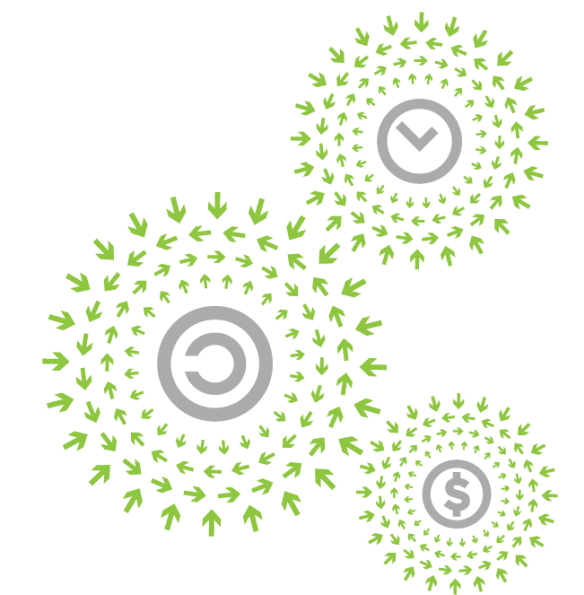
**OCP**  
SUMMIT

# Convergence in Open Hardware Platforms

Dolly Wu, VP/GM Cloud Datacenter, Inspur Systems, Inc.



**OPEN**  
Compute Project  
SOLUTION PROVIDER®



**OPEN**  
PLATINUM™

# Inspur Driving Convergence Across Open Data Center Platforms



## RACK & POWER

Inspur is the only server vendor to support all open source hardware projects and leverage common building blocks across the platforms.

### 5 Rack Scale Systems

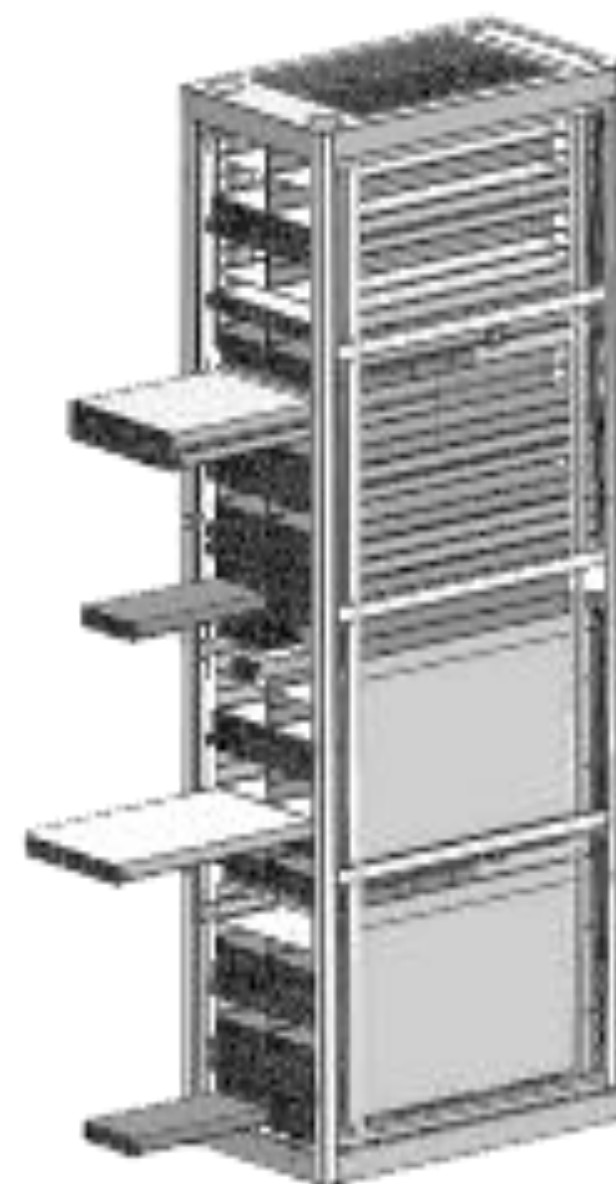
### 6 International Open Datacenter Platforms



OCP Open Rack



Project Olympus Rack



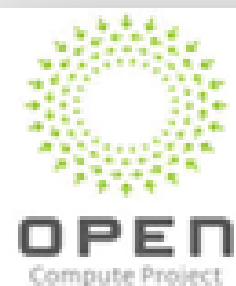
Open19 Rack



ODCC Rack



InCloud Rack with Intel® RSD



OCP Platinum Member  
Solution Provider



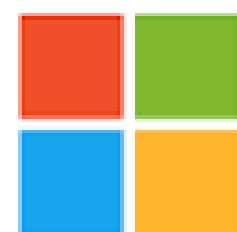
ODCC  
Solution Provider



Lead Vendor  
Key Member



Intel® Rack Scale  
Design



Microsoft  
Project Olympus



OpenPOWER™

Inspur is a Key Member in Open  
Platform Communities.



openstack  
FOUNDATION

GOLD MEMBER



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# Inspur OCP Rack Scale Product Overview



## Compute



### I/O Balanced

- 2x2.5" HDD or NVMe
- 2x M.2
- 1x FHFL(x16) : CPU0
- 1x FHHL(x16) : CPU1



### High I/O Expansion

- 4x2.5" HDD or NVMe
- 1x M.2
- 3x HHHL(x8) : CPU0



### High Density Compute

- 2x M.2
- Expansion Slot:
- 1x FHHL(x16) : CPU0



### General Purpose

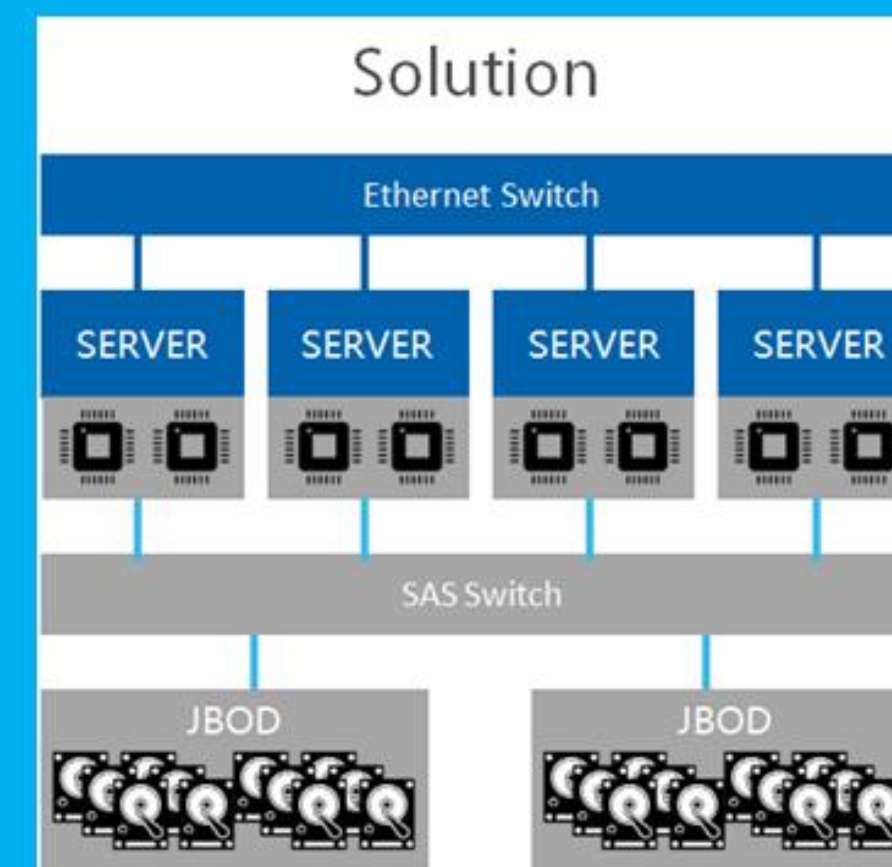
- 1x3.5" HDD
- 1x M.2
- 2x FHHL(x16) : CPU0

## Storage



### JBOD

- 20U form factor
- Two drive tray design/34 drives total
- 17x 3.5"/2.5" Hot Plug Drive Bays/Tray
- NVMe/SSD/HDD



## AI



### PCIe GPU Box

- 40U form factor
- 16 PCIE GPU cards



### NVLink GPU Box

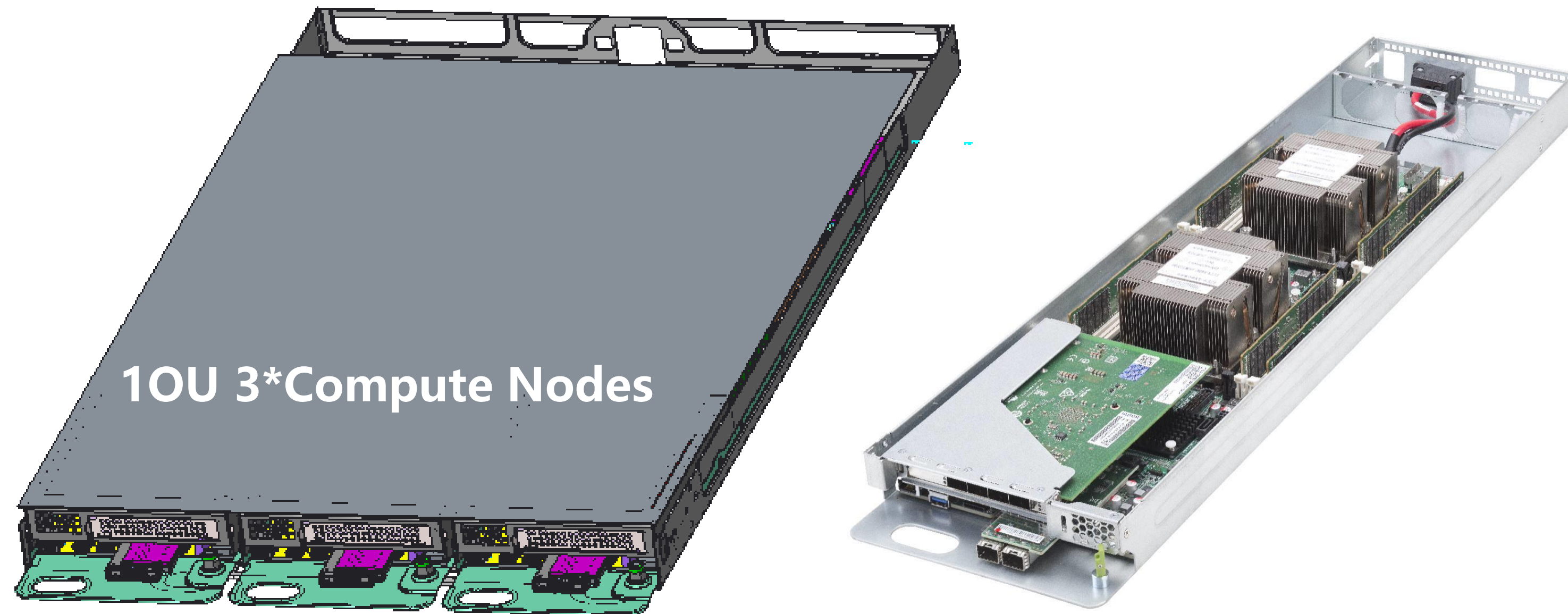
- 40U form factor
- 8 NVLink SXM2 GPUs



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# 10U 3\*Compute Nodes

**inspur**



## ON5163M5

High Density Compute Node

**CPU:** 2\* Intel Xeon Scalable processor

**DIMM slot:** 16 DIMMs

**Expansion Slot:** 1x FHHL (x16): CPU0

**Storage:** 1 or 2\*M.2

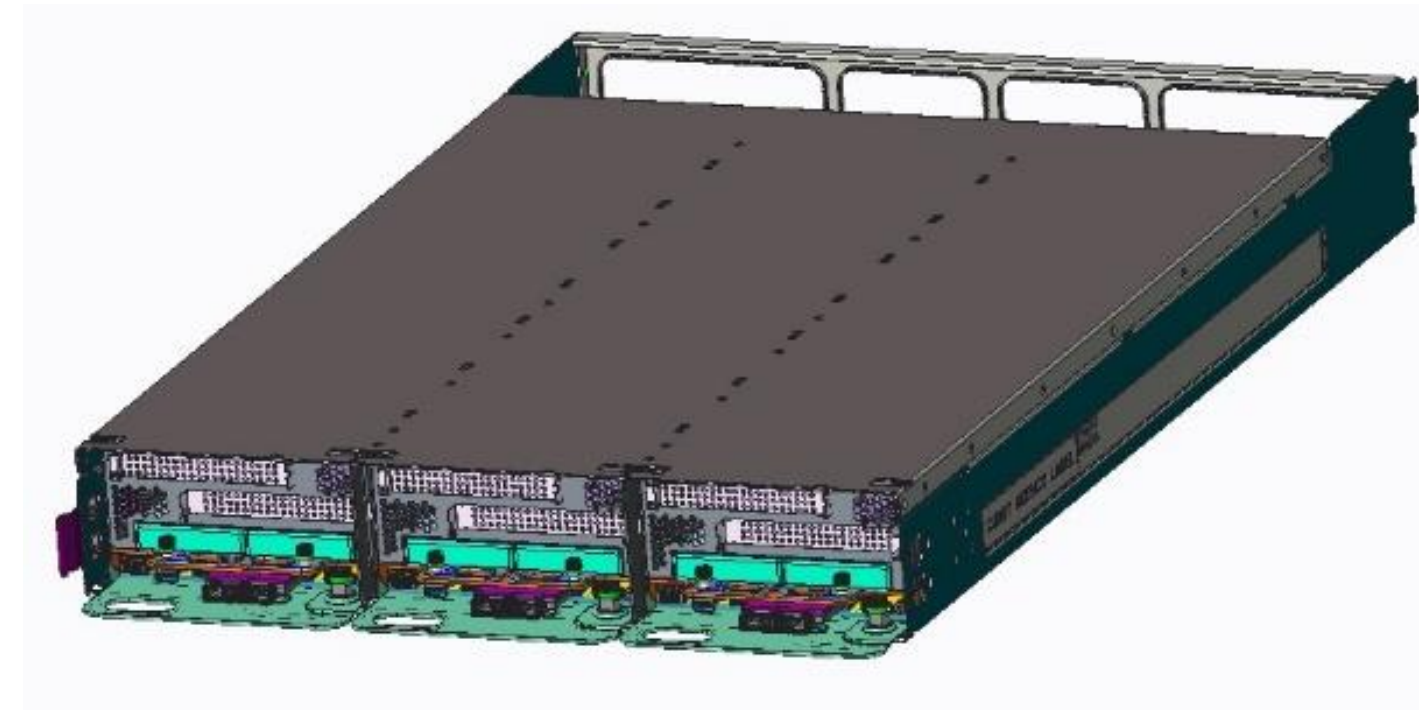


SERVER

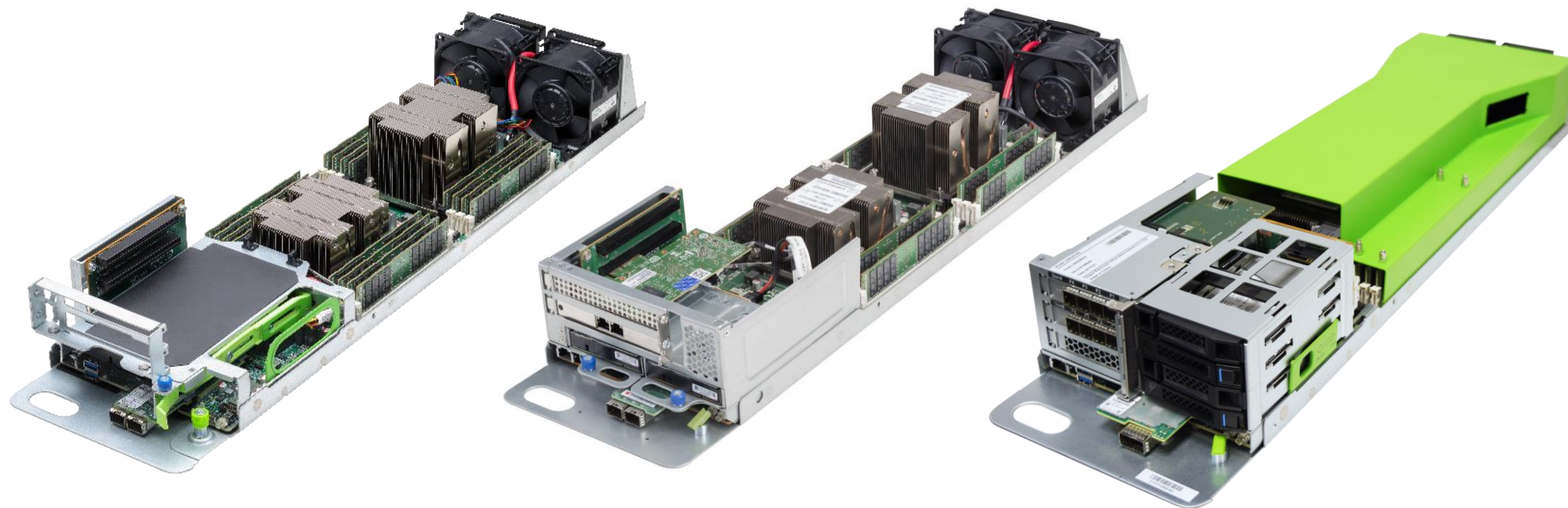
# 20U Xeon Scalable Compute Platform

## 20U 3\*Node

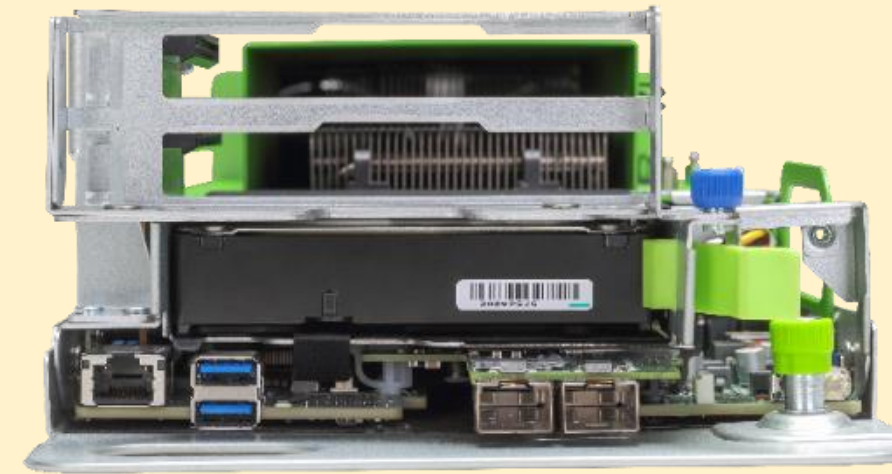
CPU: 2x Intel Xeon Scalable processor  
DIMM slot: 16 DIMMs



SERVER

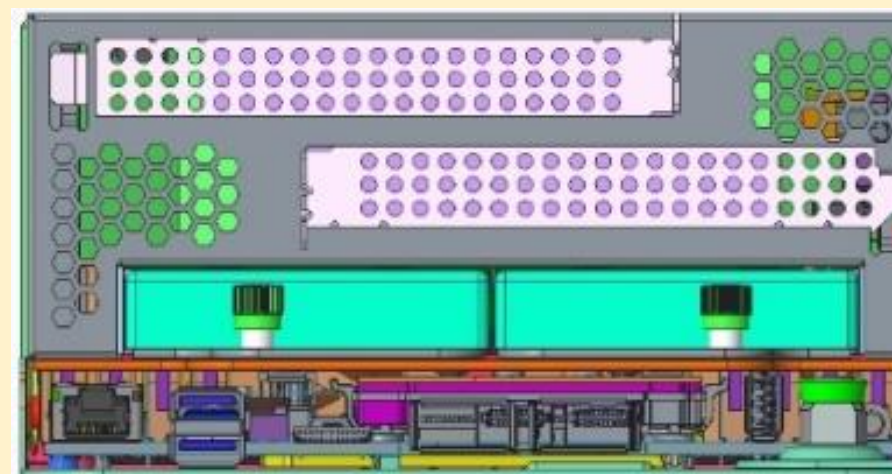


### Expansion Slot:



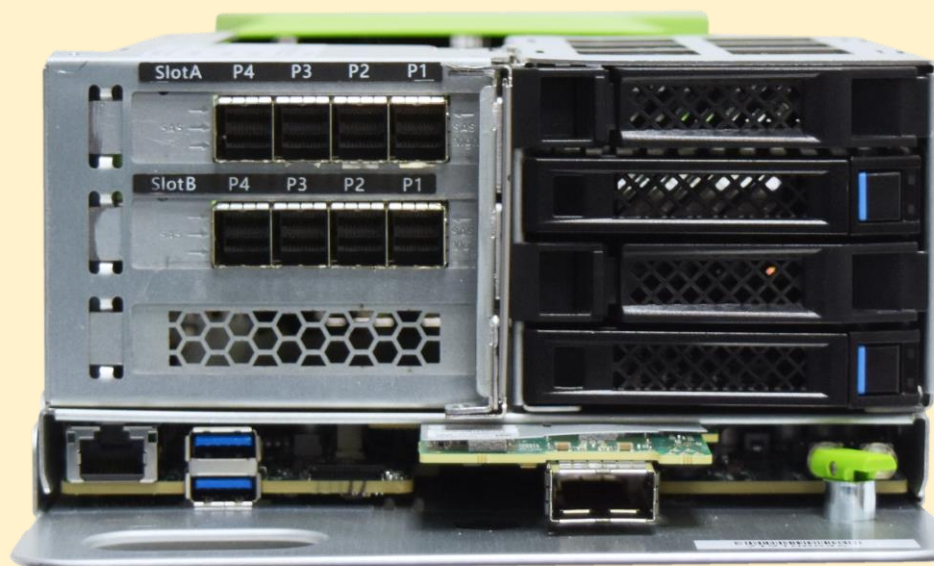
#### SKU1: General Purpose - **ON5263M5**

1. 1\*3.5" SATA
2. 2\*FHHL PCIE x16 Card(CPU0)
3. 2\*M.2



#### SKU2: Balanced - **ON5273M5**

1. 2\*2.5" HDD or NVME(x4)
2. 1\*FHFL PCIE x16 Card(CPU0)
3. 1\*FHHL PCIE x16 Card(CPU1)
4. 2\*M.2



#### SKU3: High IO – **ON5283M5**

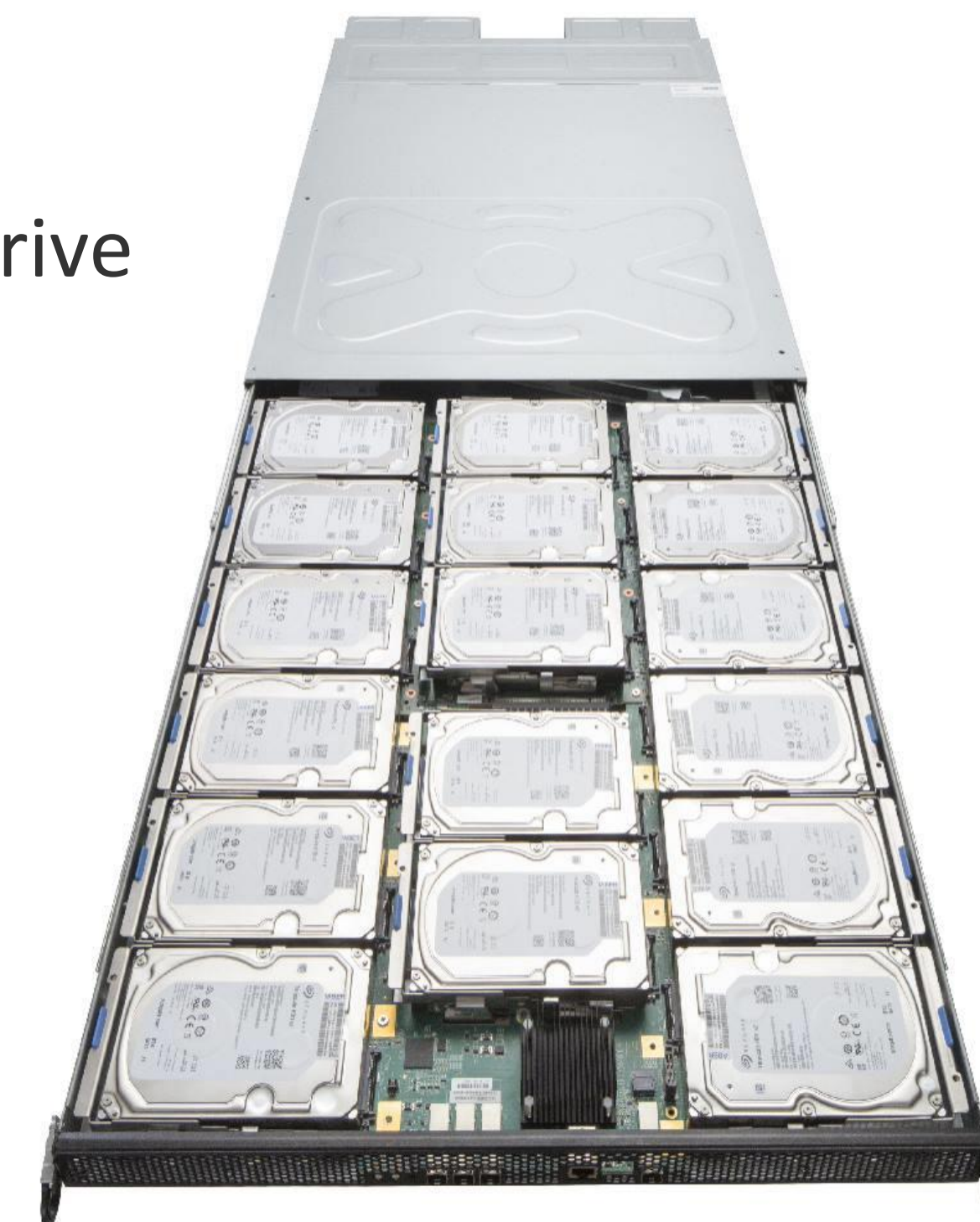
1. 4\*NVMe (x4)
2. 3\*HHHL PCIE x8 Card(CPU0)
3. 1\*M.2

# 20U High Density Storage JBOD

## ON5266M5

- 20U JBOD with 34\* Hot Swap 3.5"/2.5" Drive Bays in 2 trays (17 drive bays per tray)
- NVMe/SSD/HDD support
- Flexible Architecture

Transforming ODCC Storage architecture into OCP.



STORAGE

# Project Olympus 4-Socket Server: NF8380M5



Inspur's venture with Project Olympus is a high performance 4-socket server based on the latest Intel® Xeon® Scalable processor platform that provides significant boosts and benefits over dual socket servers



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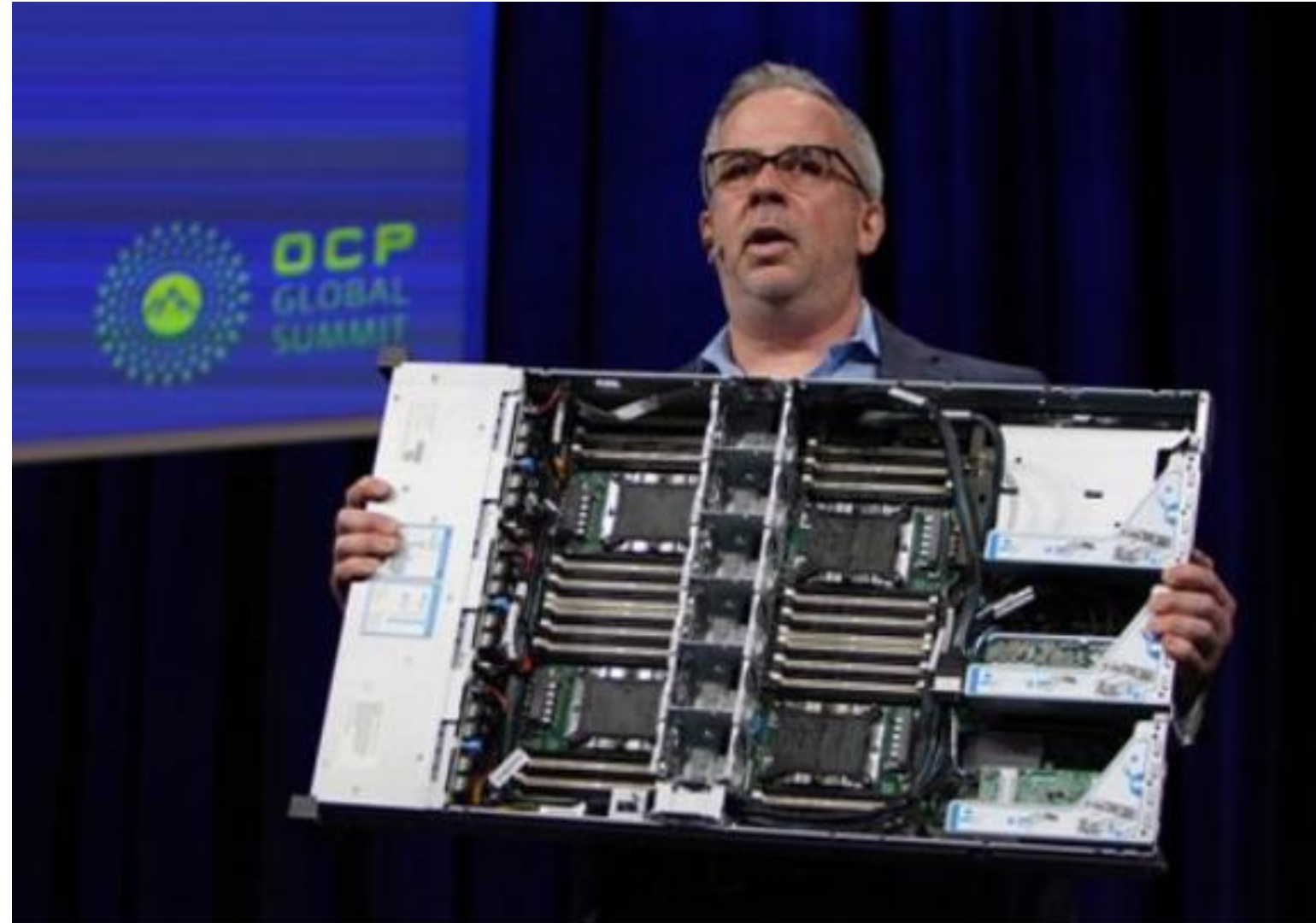
SERVER



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# The First 2U 4-Socket High Density Cloud Optimized Reference Design

**inspur**



## Inspur NF8260M5



In Process

**inspur**



- 1st 4-socket Cloud-optimized Platform to be contributed to open source community
- Validated for future generation Intel® Xeon™ Scalable Processor (Cascade Lake) and Intel® Optane™ DC persistent memory (Apache Pass)
- Increase CPU Core Count up to 112 in a single 2U system with 48 DIMMs

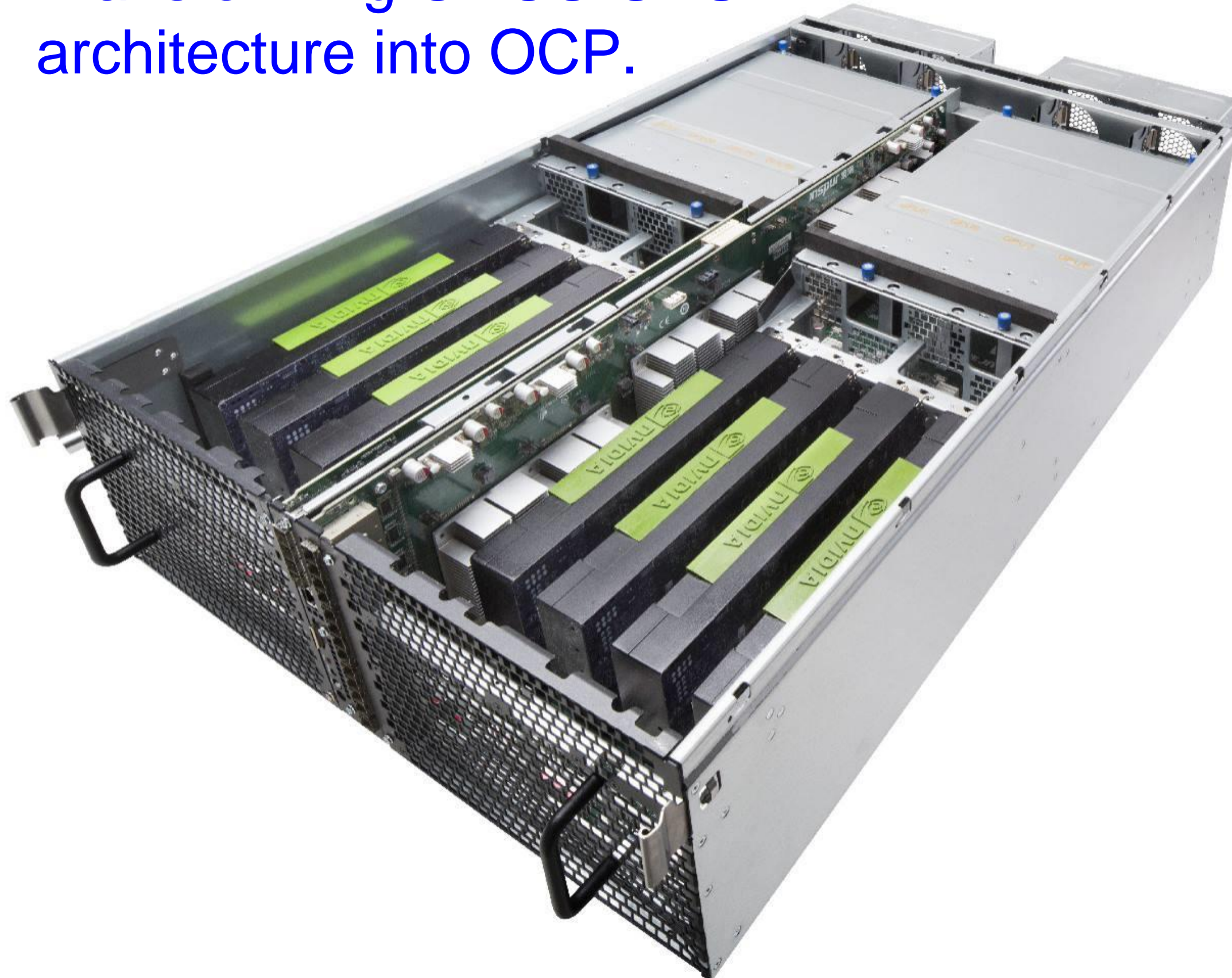


# Open. Together.

# 40U 16\*GPU PCI-e JBOG

NEW

Transforming ODCC GPU architecture into OCP.



AI



HPC

inspur

## ON5488M5 Inspur OCP AI Node

Ultra-high GPU Density

40U 16\*GPU for training or 16\*FPGA for Inference  
Energy Conservation

Shared power & fans  
I/O front access for hyper-scale data center  
Optimized Architecture for AI

Accelerates training process  
Improved efficiency on computation expansion

# 30U 8\*GPU NVLink JBOG



## ON5388M5

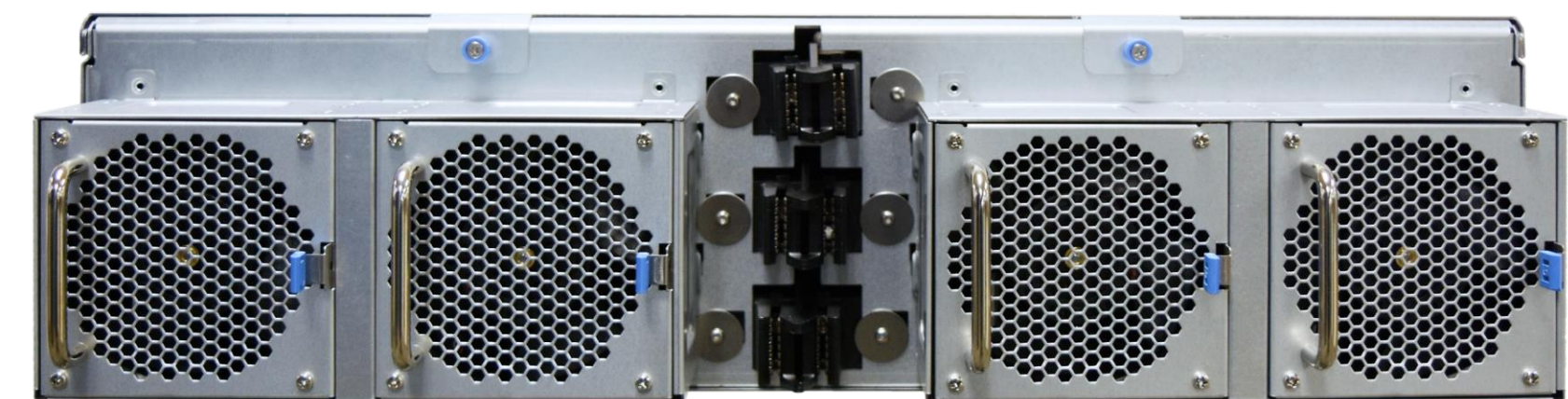
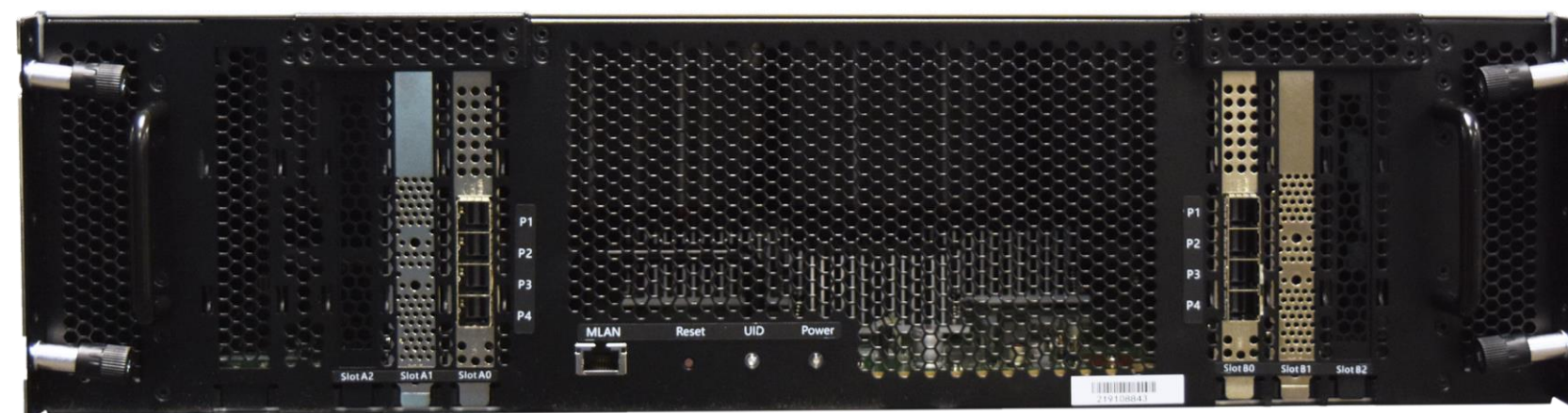
### High-Density NVLink GPU Expansion

- NVlink-enabled architecture
- Flexible topology for different applications
- High density

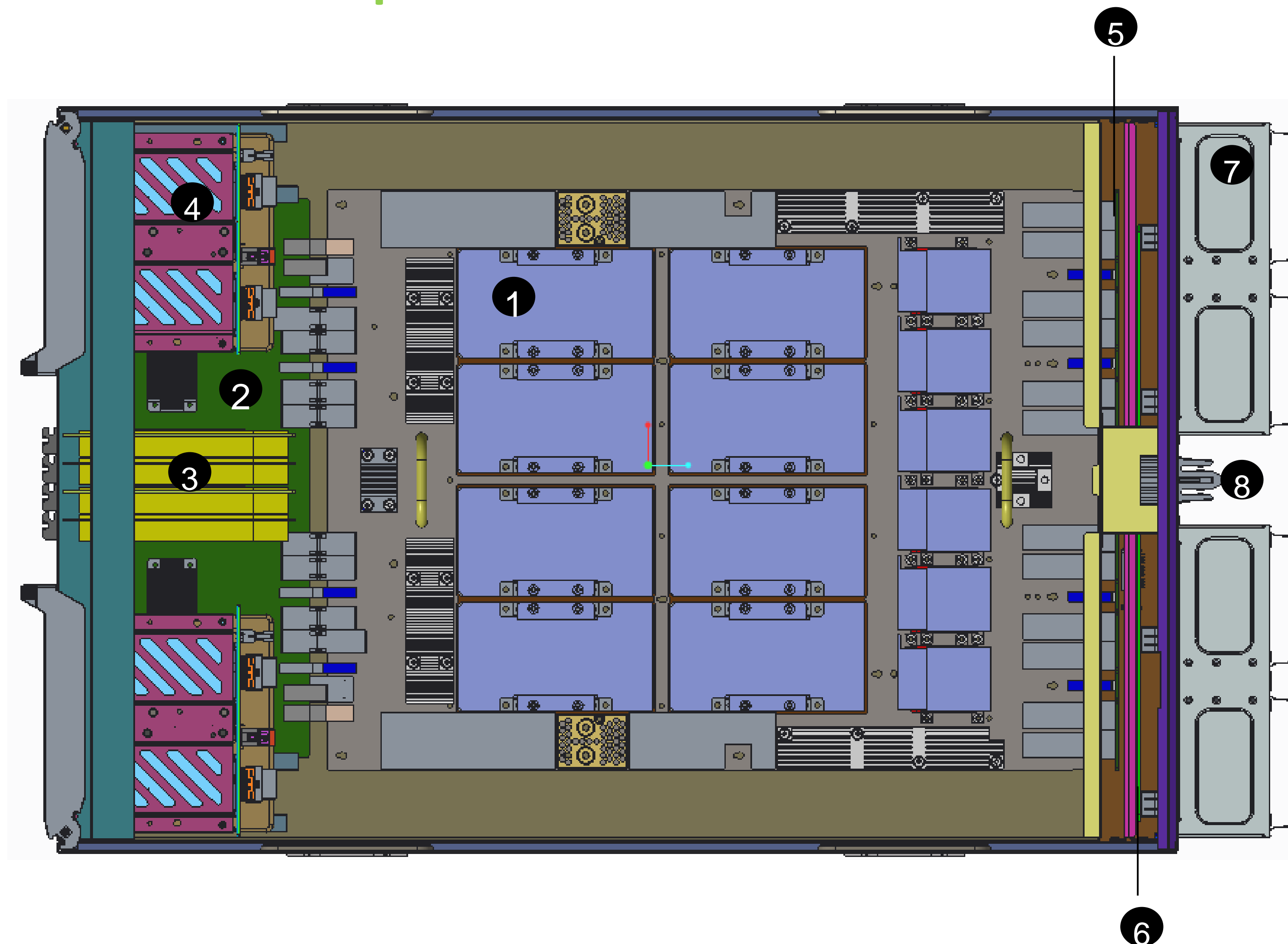
Transforming ODCC GPU server architecture into OCP.



NEW



# New AI Proposal: 60U 16\*GPU NVSwitch JBOG



Transforming traditional GPU server architecture into OCP.

- 1、HGX2 Board \*2
- 2、Switch Board \*2
- 3、FHHL PCIE Card \*8
- 4、2.5HDD \*16
- 5、Link Board
- 6、Fan Board
- 7、9256 Fan Module \*8
- 8、Busbar Clip \*2

# Global JDM Use Cases/Achievements

OCP

20U Compute

10U Compute



Customer A

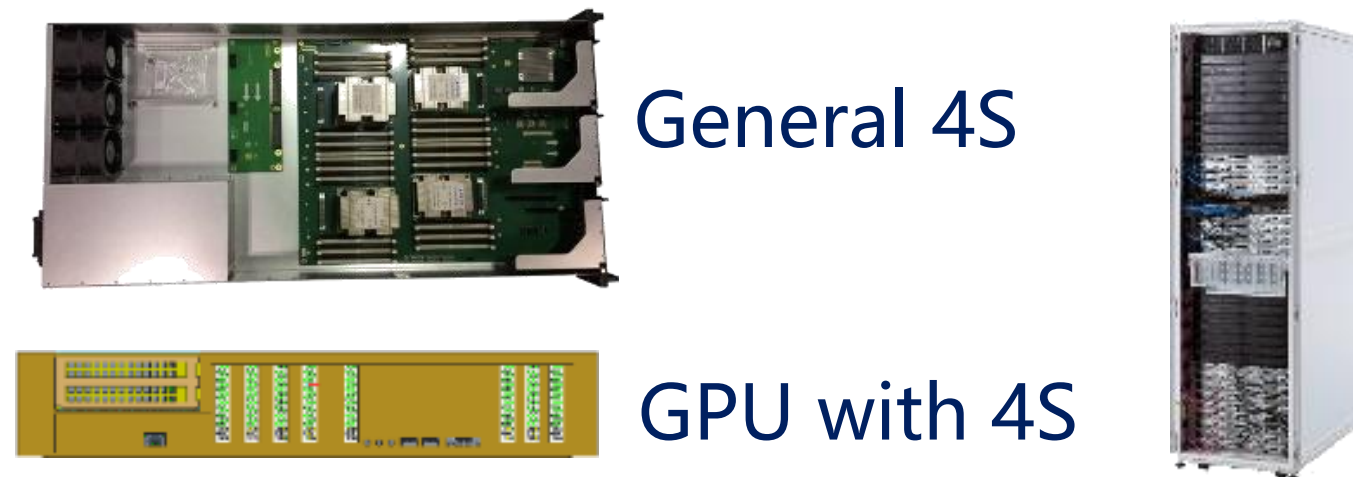
Servers&GPU&FPGA



Project Olympus

General 4S

GPU with 4S



Customer B

JBOF&JBOG

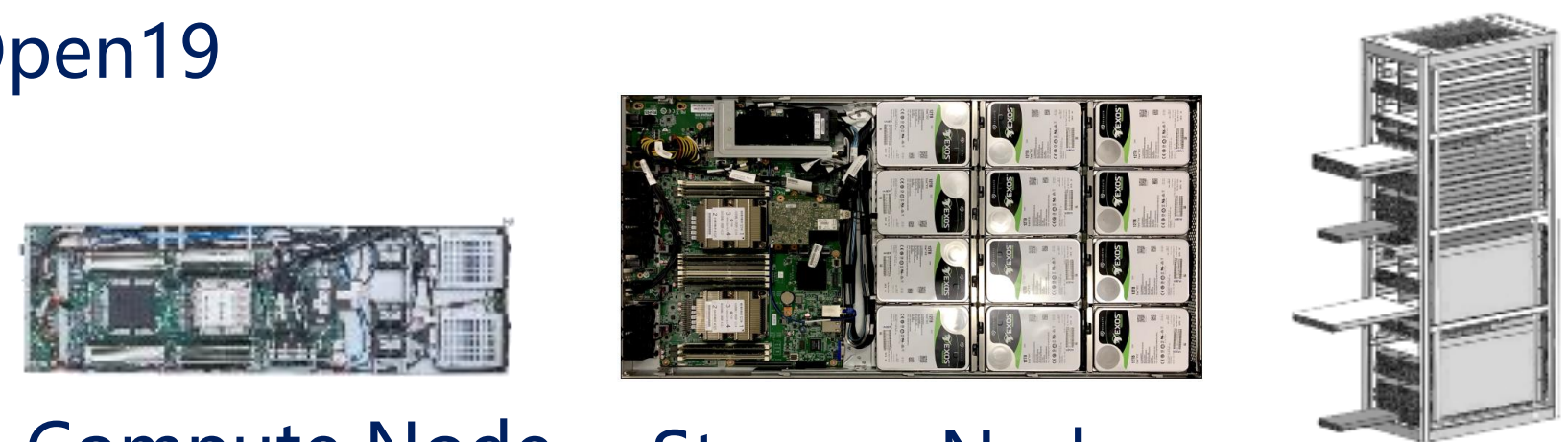
FPGA



Open19

Compute Node

Storage Node



Customer C

PCIe Switch

SAS Switch

JBOD

JBOG



# Inspur's Current Direction

1

## Enhance

our relationship with the OCP community to design products needed in the marketplace

2

## Develop

new products and technologies specific to the OCP initiative

3

## Contribute

our knowledge and designs to the OCP community

# Call to Action



## Where to find additional information (URL links)

OCP Projects: <https://www.opencompute.org/projects>

Where to buy: <https://www.opencompute.org/products>

For more information on Open Platforms and Inspur OCP Products:

<https://www.inspursystems.com/open-platforms/>

<https://www.inspursystems.com/products/open-platforms/ocp/>

For information on New Storage and GPU Server Products:

<https://www.inspursystems.com/product/inspur-ocp-jbod/>

<https://www.inspursystems.com/product/on5388m5/>

<https://www.inspursystems.com/product/inspur-ocp-ai-node/>

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