TAKING OCP TO THE NEXT LEVEL
– WORKLOAD OPTIMIZATION

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OPEN COMPUTE HISTORY OF COMMITMENT AND LEADERSHIP

2011
Founding Board Member of OCP

+25
Contributions and Enablements

+80
Products with Partners

GETTING TO $10B IN OCP DEPLOYMENT

Workload Optimized

Open Management

Integrated Solutions
NEW OCP COMPUTE PLATFORMS THIS YEAR

Mount Olympus Next Gen Platform for Cascade Lake Processor

Cooper Lake Processor Platforms

2S
4S (2x 2S)
8S (4x 2S)

*Other names and brands may be claimed as property of others.
INTEL® HIGH-DENSITY, CLOUD-OPTIMIZED PLATFORM

Cloud-Optimized Platform
2U 450mm x 780mm
4S Intel® Xeon® Scalable processors
48 DDR4 memory slots, SATA/SAS/NVMe 2.5” SSD drive bays

Available in second half 2019

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OCP CARDS SUPPORT NEW AI ACCELERATORS
INTEL® NERVANA™ NEURAL NETWORK PROCESSOR (NNP)

FOR TRAINING:
Dedicated deep learning training acceleration
Optimized memory and interconnects
In production in 2019

FOR INFEERENCE:
Dedicated deep learning inference acceleration
10nm Intel® process node
In production in 2019

Intel is a proud partner of the GLOW community

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ANNOUNCING A NEW CPU-TO-DEVICE INTERCONNECT STANDARD
COMPUTE EXPRESS LINK (CXL)

- New CXL specification and consortium
- Memory coherent, high-speed interconnect
- Initial spec donated by Intel
- Intel® believes there is an opportunity for an OCP working group to define new form factors for CXL
- Optimized stack with x16 PCI Express Gen 5 physical and electrical connection (32 GT/s)
- Use cases include AI, networking, media, graphics and more
- Availability expected 2021

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ADVANCING NETWORK PERFORMANCE WITH OCP NIC 3.0 ADAPTERS

25GbE Intel® Ethernet Network Adapters for OCP 2.0

1GbE and 10GbE Intel® Ethernet Network Adapters for OCP NIC 3.0

Up to 100 GbE next gen Intel® Ethernet Network Adapter for OCP NIC 3.0

Now: OCP Mezzanine cards 2.0

Q3‘19: OCP NIC 3.0 Adapters

Intel® Ethernet Network Adapters for OCP - 10GbE, 25GbE and 40GbE are available

Complete OCP NIC 3.0 product family from 1GbE to 100GbE (1, 10, 25, 50, 100)
Flexible port configurations

Work with us on implementing and validating your solutions

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ADVANCING COMMON SIPH CONNECTIVITY STANDARDS

Open standard optical hardware leveraging wafer scale manufacturing

100G CWDM4-OCP shipping in volume since 2017, 400G shipping in 2019

Working to standardize electrical interfaces (die-to-die and die-to-optical) for optical I/O and integrated networking/switch solutions
OPEN PLATFORMS READY FOR NEW MEMORY AND STORAGE

**DRAM**

**HOT TIER**

**Intel® 3D Nand SSD**

**WARM TIER**

**Persisten Memory**

**HDD / TAPE**

**COLD TIER**

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GETTING TO $10B IN OCP DEPLOYMENT

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Integrated Solutions

Higher workload performance
Pooling increases utilization
Disaggregation for late-binding and independent refresh
Composable with software defined resource allocation
Resiliency and security
Ease of integration

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ANNOUNCING RACK MANAGEMENT MODULE CONTRIBUTIONS
Open Source Industry Efforts

BIOS/System Firmware
(OCP system firmware project
including firmware support package,
platform runtime mechanism, runtime
firmware update...)

BMC Firmware
(Linux Foundation project)
OpenBMC Github

Rack Manager Firmware
(OCP OpenRMC project)
OCP Github

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ANNOUNCING AN INDUSTRY COLLABORATION AROUND PLATFORM ROOT OF TRUST

Set an open and aligned specification built upon Cerberus-v1 and Intel® PFR (Platform Firmware Resilience)

Collaborate through OCP on future root of trust capabilities including: in-silicon RoT, secure key measurement/storage, advanced key management

Create open and standardized interfaces, application programming interface (API), firmware and register-transfer level (RTL)

Extend on NIST 800-193 platform resiliency as the foundation

Call for participation, collaboration, and engagement

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OPEN SOFTWARE TO ENABLE INTEGRATED SOLUTIONS

ISOLATION
katacontainers.io/

ORCHESTRATION
Open Stack.
kubernetes

OPTIMIZING FOR AI
MKL-DNN
Caffe2
PYTORCH
OpenVINO

LIBRARIES
github.com/intel/nemu

FRAMEWORKS
github.com/intelai

TOOLKITS

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Thank you