

OCP HPC Sub Project

Minutes - 04/20/2021

Attendees

| Attendee | Affiliation | 04/20/2021 |
|------------------|------------------|------------|
| Allan Cattle | Nallasway | x |
| Michael Choi | Samsung | x |
| Ruan Chuang | | x |
| Robert Ciotti | NASA | x |
| Scott Durrant | Synopsys | x |
| Hesham Elbakoury | | x |
| Kin Job | | x |
| Jinshui Liu | Futurewei | x |
| Brent Massey | CDS Global Cloud | x |
| Yahya Merza | Aclectic | x |
| Benson Muite | | x |
| Gus Panella | Molex | x |
| Eric Park | Boyd Corp | x |
| Brad Reger | Ingrasys | x |
| Darwesh Singh | Bolt Graphics | x |
| Timothy Wang | Lenovo | x |
| Jim Warner | Retired | x |
| Totals | | 17 |

[Meeting Transcription](#)

Meeting Objectives

Proposed Agenda for this meeting :

- 1) Introduction to New Attendees
- 2) WhitePaper Outline that's aligned with SC21 Panel. Proposed Panelist Topics
 - a) OCP HPC System Architecture - Agnostic at the core
 - b) Power Delivery, Integrity & Efficiency
 - c) Thermal Management - Cooling

- d) All Interconnect, Network/Memory/Storage, Signal Integrity - Highest speeds at lowest pJ/bit/mm.
 - e) System Management / Firmware - Configuration, Resource Mapping, & Telemetry
 - f) Metrics
- 3) AOB

Meeting Discussion Notes

1) Introductions to New Attendees.

Hesham - Independent Consultant. Interesting in HPC in general. Telemetry, system management architecture, Power & Thermal Management. Worked in HPC for many years. Most of his work is within the datacenter.

Michael Choi - Samsung - interested in HPC and Data Center AI and Big Data Analytics. Doing AI and Big Data for a long time. CPU/GPU/FPGA for a futuristic data center. Right now looking at the memory system architecture and continue in the AI etc domain. Contributing to PCIe and CXL Consortium. Think that CXL will change this acceleration domain characteristic big time. Regarding HPC for clustering issue we can go for Infiniband etc but also need to consider CXL. Just joined OCP community to see what is going on. Today is my first day and looking for other OCP participation.

2) WhitePaper Outline that's aligned with SC21 Panel

Group in OCP called ODSA - defining interfaces between accelerators.

Darwesh - Wants a framework to integrate with. Today there isn't anything I can insert my technology into. Customers and investors interested in building an ecosystem that is not closed. Can do on the software side can do with Khronos. But on the hardware side there isn't anything and this is where this can help. We can easily convince others

Bob Ciotti - Standardizing Serdes design around bringing up the link, eye training, error correction. Management Protocol.

Darwesh - Israel startup - doing telemetry inside of silicon. Agents inside the chip. Monitor many things. How long the silicon will last and degrade performance. Had a few wins with hyperscalers.

If using FPGA. Can be programmed for the agent.

Brent Massy - standards for how to read the data. Data centers don't have it. Not exactly getting accurate reading. One of Brent's biggest successes is identifying script errors. E.g. PSU being

capped at 50C. A lot of firmware issues. Replacing parts that aren't bad. Don't think that we have standards.

3) AOB