OPEN POSSIBILITIES.

Intel Ponte Vecchio Compute Accelerator OAM Product and System
Ponte Vecchio (PVC)
General Compute Accelerator

Silicon Current Status

- > 45 TFLOPS  
  FP32 Throughput
- > 50 TBps  
  Cache Bandwidth
- > 8 Tbps  
  Communication Bandwidth
Ponte Vecchio Construction

- Compute Tile
- Rambo Tile
- Foveros
- Base Tile
- HBM Tile
- Xe Link Tile
- Multi Tile Package
- EMIB Tile

OPEN POSSIBILITIES.
Intel Ponte Vecchio OAM Spec

- OAM v1.1 Compliant
- Air Cooled
- Liquid Cooled
- High Speed SerDes for Xe Links
Xe Link for Scalability
Enabling a high number of coherent and unified accelerators
4 PVC OAM Baseboard

- 4 GPU (OAM) Carrier Base Board with Xe-Links built in to enable high performance multi-GPU communication within the sub-system
- Half Width sled, to enable high density HPC designs
  - Connect to CPU Motherboard over PCIe Gen5
  - Support for air and liquid cooled PVC OAM SKUs
  - Can support liquid cooled or air-cooled systems (1U or 2/3U chassis)
  - Support for UP or DP systems
  - High voltage power input (48V to 54V) for high efficiency power delivery
- High Speed all to all connected Xe-Link between PVC modules
- Scale-out thru CPU host node
- Designed to enable system flexibility and faster OEM time to market
Accelerated Compute Systems

Ponte Vecchio x4 Subsystem
with Xe Links

+ 2S Sapphire Rapids

OPEN POSSIBILITIES.
Intel Accelerator UBB: 8 PVC OAM Baseboard

- 8 GPU (OAM) UBB with Xe-Links built in to enable high performance multi-GPU communication within the sub-system and across multi-node
- OCP UBB, to enable high performance AI/HPC designs
  - Connect to CPU Motherboard over PCIe Gen5
  - Can support liquid cooled or air-cooled systems (3/4U UBB Tray)
  - Support for aggregated or disaggregated systems
  - High voltage power input (48V to 54V) for high efficiency power delivery
- Fully Connected Topology with all to all connected Xe-Link between PVC OAMs
- Designed to enable system flexibility and faster OEM time to market to support both PVC and a next generation Gaudi AI processor
Call to Action

Get involved in the project:

OCP Server Project: https://www.opencompute.org/projects/server

OAI Subgroup: https://www.opencompute.org/wiki/server/OAI

OAI Mailing List: https://oc-all.goup.io/g/OCP-OAI
Thank you!