

FROM DATACENTER TO EDGE : VIRTUAL EVENT APRIL 21-22, 2021



# **CXL: Expanding the Memory Ecosystem**

A Panel Discussion Moderated by

Tom Coughlin, President, Coughlin Associates

# **How To Participate**



- Ask questions via the Q&A button on the bottom of the zoom window
- You can see other attendees' questions, so upvote for your favorites to be answered during the session
- We'll try to get to as many questions as possible
- Connect with the panelists via Slack channels during the event
- And look for our post-Summit Evaluation Survey

## **Abstract**



• CXL is an open industry standard that provides high bandwidth low latency interconnection. This panel will discuss how CXL works and how it changes the use of memory, accelerators and memory management as well as use cases, availability and how to get involved.

## **Panelists**



- Stephen Bates, Chief Technology Officer, Eideticom
- Chris Petersen, Hardware Systems Technologist, Facebook
- Andy Rudoff, Persistent Memory Software Architect, Intel Corporation
- Leah Schoeb, Sr. Developer Relations Manager, AMD
- David Wang, Director, Memory Product Planning, Samsung Semiconductor
- Hao Zhong, CEO, ScaleFlux



### Where To Find Out More About Compute, Memory, & Storage



Website Resources snia.org/CMSI



Twitter
@SNIAComputeMemoryStorage



**SNIA CMSI Blog** sniacmsiblog.org



Videos youtube.com/SNIAVideo



**Educational Materials** snia.org/educational-library

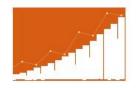


Join SNIA and the Compute, Memory, and Storage Initiative snia.org/join





**CMSI Engages and Educates** 



**CMSI Accelerates Standards** 



CMSI Propels Technology Adoption

snia.org/cmsi

# **CXL Delivers the Right Features & Architecture**



#### Challenges

Industry trends driving demand for faster data processing and next-gen data center performance

Increasing demand for heterogeneous computing and server disaggregation

Need for increased memory capacity and bandwidth

Lack of open industry standard to address nextgen interconnect challenges

#### CXI

An open industrysupported cachecoherent interconnect for processors, memory expansion and accelerators

#### Coherent Interface

Leverages PCIe with 3 mixand-match protocols

#### Low Latency

.Cache and .Memory targeted at near CPU cache coherent latency

#### Asymmetric Complexity

Eases burdens of cache coherent interface designs

















Google



intel







CXL Board of Directors



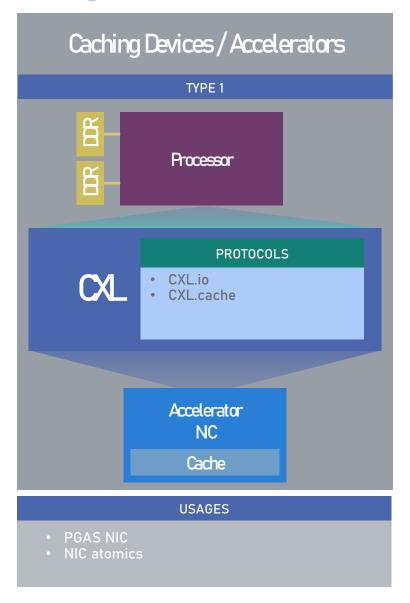
Industry Open Standard for High Speed Communications

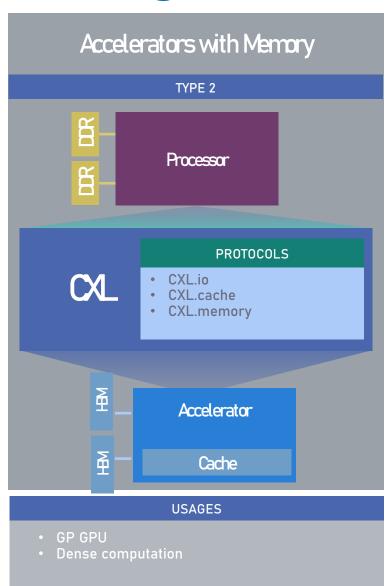
130+ Member Companies

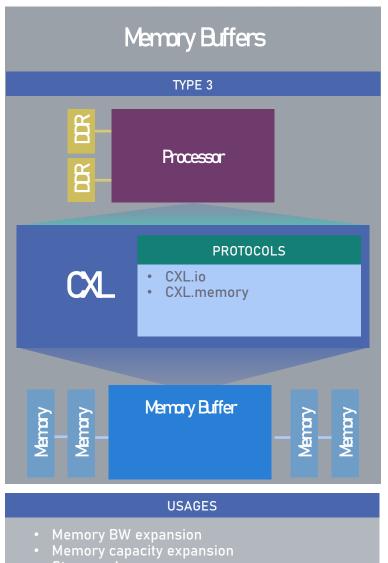


# Representative CXL Usages







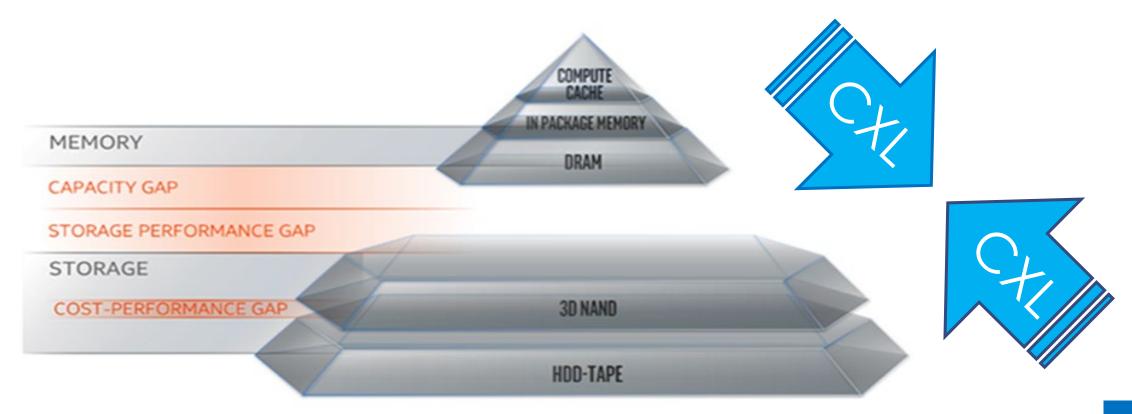


# Storage/Memory Hierarchy Gap



CXL Helps Narrow the Storage and Memory Gaps – Both In Capacity and Performance

# MEMORY AND STORAGE HIERARCHY GAPS



# **In Summary**



## CXLConsortium momentum continues to grow

- 130+ members and growing
- Celebrating first anniversary of incorporation – second generation specification
- Responding to industry needs and challenges

#### Call to action

- Join CXL Consortium
- Follow us on <u>Twitter</u> and LinkedIn for more updates!





