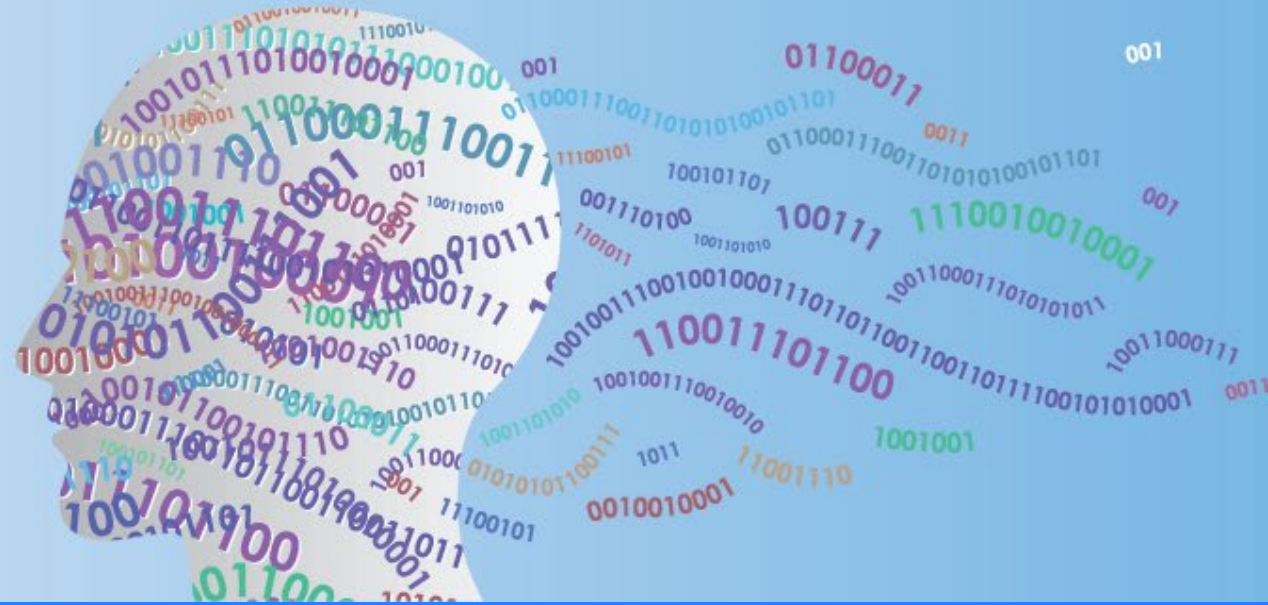




SNIA

# PERSISTENT MEMORY + SUMMIT 2021 COMPUTATIONAL STORAGE

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



## Opening Remarks and State of the Union

Jim Pappas

SNIA Board of Directors

Director of Technology Initiatives, Intel Corporation

# Welcome to our 9th annual Summit – and a 1st in several areas!



# SNIA-at-a-Glance



**180**  
industry leading  
organizations



**2,300**  
active contributing  
members



**50,000**  
IT end users & storage  
pros worldwide

Learn more: [snia.org/technical](https://snia.org/technical)

 **@SNIA**

## What Does SNIA Do?

- *SNIA is a non-profit global organization dedicated to developing standards and education programs to advance storage and information technology.*

## Who is CMSI?

- Part of SNIA, the SNIA Compute, Memory, and Storage Initiative is a community of storage professionals and technical experts supporting the industry drive to combine processing with memory and storage, and to create new compute architectures and software to analyze and exploit the explosion of data creation over the next decade.

### SNIA Technical Standards

**20+**  
years

of developing and promoting standards in digital storage and information management.



SNIA. COMPUTE, MEMORY,  
CMSI | AND STORAGE

[snia.org/cmsi](https://snia.org/cmsi)

# Persistent Memory & Computational Storage

## Why???

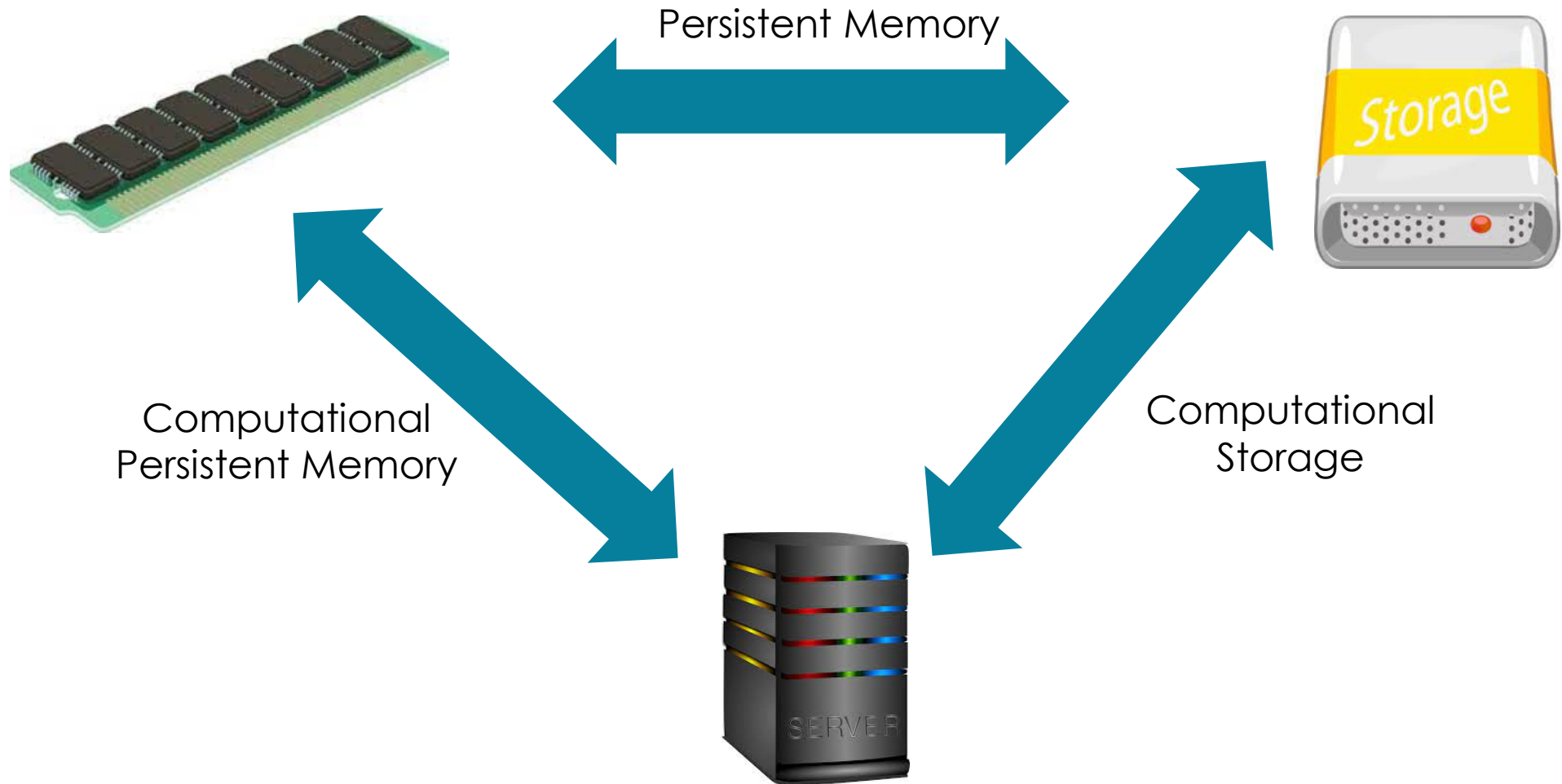
???

SNIA.  
SSSI | SOLID STATE  
STORAGE



SNIA.  
CMSI | COMPUTE, MEMORY,  
AND STORAGE

# SNIA Compute, Memory, Storage Initiative



# Persistent Memory Update

- Programming model is becoming mature
  - Native support in Linux & Windows (top priority goal)
  - Continuing work on Remote Persistent Memory (IBTA and OFA)
- Persistent memory products are deployed
- New and better interfaces are being developed (CXL)
  - Dramatically increases the ease of PM deployment
  - Full PM support in CXL 2.0
  - CMSI & CXL liaison agreement in place
- PM educational efforts are ongoing (CMSI sponsored hackathons)



# Persistent Memory Hackathon/Workshop

- Advance the cause of the SNIA PM & NVDIMM SIG
- Programming Challenges
  - Highlight unique characteristics of the different memory
  - New challenge coming this summer/fall 2021
- Multiple discrete hackathon/workshop events for 2021
  - Here at the PM+CS Summit
    - Click on PM Workshop//Hackathon on the top navigation bar
  - Coming up: SDC EMEA, SDC India, SDC US
- New capabilities
  - Host your own virtual hackathon
  - Test your PM software in the cloud



Visit [snia.org/pmhackathon](https://www.snia.org/pmhackathon) for more details or email us at [pmhackathon@snia.org](mailto:pmhackathon@snia.org)

# Summit Agenda – Wednesday April 21

*Sessions Live at Listed Times – then On-Demand*

Time (PST)	Title	PM-focused	CS-focused	Both
9:00 a.m. – 9:30 a.m.	Summit Opening Remarks and State of the Union			
9:30 a.m. - 10:00 a.m.	Future of Persistent Memory, DRAM, and SSD Form Factors Aligned with New System Architectures			
10:05 a.m. - 10:35 a.m.	The Persistent Memory Connection - How to Attach PM in Computing Systems?			
10:40 a.m. - 11:10 a.m.	NVMe Computational Storage: A New Hope for Accelerators and DPUs			
11:15 a.m. - 11:45 a.m.	Dynamic Trends in Non-Volatile Memory Technologies			
11:45 a.m. - 12:30 p.m.	What Does the Future Hold for Persistent Memory? A Panel Discussion			
12:35 p.m. - 1:05 p.m.	CXL 2.0 - Architecture and Benefits for Computational Storage			
1:10 p.m. – 1:40 p.m.	Security in Computational Storage Drives			
1:45 p.m. - 2:45 p.m.	Benefits of Computation in CSD, CSA, CSP - A Panel Discussion			
1:45 p.m. – 2:15 p.m.	The Challenges of Measuring Persistent Memory Performance			
2:20 p.m. - 2:55 p.m.	How Computational Storage Can Become a New Standard for Cloud Architectures			
2:50 p.m. – 3:00 p.m.	Recap of Day and Closing Remarks			
3:00 p.m. – 4:00 p.m.	Birds-of-a-Feather - Computational Storage			
4:00 p.m. – 5:30 p.m.	Networking Reception			

# Summit Agenda – Thursday April 22

## Sessions Live at Listed Times – then On-Demand

Time	Title	PM-focused	CS-focused	Both
9:00 a.m. – 9:30 a.m.	State of the Computational Storage Market – A Supplier’s View			
9:30 a.m. - 10:00 a.m.	Four Top Use Cases for Big Memory Today and Tomorrow			
10:05 a.m. - 10:35 a.m.	Practical Computational Storage: Performance, Value, and Limitations			
10:40 a.m. - 11:10 a.m.	Persistent Memory in CXL			
11:15 a.m. - 11:45 a.m.	Why Distributed AI Needs Computational Storage			
11:45 a.m. - 12:30 p.m.	Q&A With Thursday Morning’s Presenters			
12:35 p.m. - 1:05 p.m.	Beyond Zoned Named Spaces – What Do Applications Want?			
1:10 p.m. – 1:40 p.m.	A New Path to Better Data Movement within System Memory, Computational Memory with SDXI			
1:45 p.m. - 2:45 p.m.	Security Impacts to a Changing Storage Ecosystem – A Panel Discussion			
1:45 p.m. – 2:45 p.m.	CXL: Expanding the Memory Ecosystem – A Panel Discussion			
2:50 p.m. – 3:00 p.m.	Recap of Day and Closing Remarks			

# Thanks To Our Sponsors

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Tour our exhibitor virtual booths throughout the Summit. Chat with them via our Slack channels.

# Join SNIA at SDC Events in 2021



Storage Developer Conference  
September 28 - 29, 2021



Storage Developer Conference India  
Virtual Conference, August 5, 2021



Storage Developer Conference EMEA  
Virtual Conference, June 8, 2021

**To attend, or to speak or sponsor, visit:**  
<https://www.snia.org/news-events/storage-developer-conference>

# Enjoy and Socialize the Summit!

Check out the PM+CS Summit Slack Channels and network with your peers

Ask a question on Twitter – use #sniapmcs



mentioning @SNIA and @SNIACMSI



# Thank you

Please visit [www.snia.org/pm-summit](http://www.snia.org/pm-summit) for presentations

