



# Storage Networking Industry Association

## Technical Activities Update

April 2022



# SNIA Public Review Drafts

- Smart Data Accelerator Interface (“SDXI”) Specification v0.9.0 rev 1
- Blockchain Interoperability Specification v0.5 rev 0.1
- Computational Storage Architecture and Programming Model v0.8 rev 0
- Computational Storage API v0.5 rev 0
- DRAFT CDMI Extensions and Profiles
  - Capabilities Selection Extension v2.0
  - CORS Extension v2.0
  - Data Affinity Extension v2.0
  - Extended Child Listing v2.0
  - Jobs v2.0
  - Partial Upload Extension v2.0

**Check them out! - Provide Feedback!**  
***Participate in their development!***

# Storage Developer Podcast: Latest Episode



**This week's highlighted Podcast:**

**#166: Future of Storage Platform Architecture** by Mohan Kumar, Intel Fellow, Intel and Anjaneya 'Reddy' Chagam, Principal Engineer and Chief SDS Architect, Intel

Traditional Storage Node consists of Compute, Networking and Storage elements. In this case, the entire node is a single failure domain and as such both data and meta data are maintained in storage. Emergence of CXL allows us to re-think the traditional storage node architecture. In future, the storage (behind CXL IO) and metadata memory (behind a CXL memory) can be disaggregated locally or across a bunch of storage nodes to improve the availability of the data. Further, memory persistence can be achieved at a granular level using CXL memory devices. Future extensions to CXL with fabric like attributes have potential to further extend the data replication capabilities of the storage platform. In this talk, we will discuss the various platform architecture options that are emerging for the storage node and how they can change the face of traditional storage node organization.

Learning Objectives: 1) Illustrate that the current architecture assumptions for Storage node need to be revisited; 2) Explore options for new storage node architecture with CXL; 3) Explore architecture options for storage node with a fabric extension (beyond today's CXL); 4) Encourage partnership with industry to work together on storage node innovation; 5) Explore storage infrastructure disaggregation and its value to future of storage.

# Storage Developer Podcast: Upcoming Episodes

- NVMe-oF: Protocols & Transports Deep Dive
- PCIe® 6.0: A High-Performance Interconnect for Storage Networking Challenges
- Completing the Picture for NVMe and NVMe-oF Management: Guidelines for Implementations
- Computational Storage Moving Forward with an Architecture and API
- Emerging Storage Security Landscape

# Next SNIA LIVE Webcast

## ■ Storage Life on the Edge: Security Challenges

■ Wednesday, April 27, 2022. 10:00 am PT / 1:00 pm ET

- The complex and changeable structure of edge computing, together with its network connections, massive real-time data, challenging operating environment, distributed edge cloud collaboration, and other characteristics, create a multitude of security challenges. This panel of experts will explore these challenges and wade into the debate as to whether existing security practices and standards are adequate for this emerging area of computing. Join us for a discussion that will cover:
  - Understanding the key security issues associated with edge computing
  - Identify potentially relevant standards and industry guidance (e.g., IoT security)
  - Offer awareness of new security initiatives focused on edge computing

# Upcoming SNIA LIVE Webcasts

## ■ SmartNICs to xPUs – Why is the Use of Accelerators Accelerating?

■ Thursday, May 19, 2022. 11:00 am PT / 2:00 pm ET

- As applications continue to increase in complexity and users demand more from their workloads, there is a trend to again deploy dedicated accelerator chips to assist or offload the main CPU. These new accelerators (xPUs) have multiple names such as SmartNIC, DPU, IPU, APU, NAPU. How are these different than GPU, TPU, CPU? xPUs accelerate and offload functions including math, networking, storage, cryptography, security, and management. This webcast will cover key topics about, and clarify questions surrounding, xPUs.



SNIA STORAGE BASICS

# Geek Out on Data Privacy & Protection

Data protection and data privacy have become Board level discussions as failing to secure sensitive information puts businesses at significant risk of being exploited by cybercriminals, and can lead to organizations facing enormous legal penalties. Geek Out here to learn best practices in data protection & data privacy, the storage security landscape, ransomware mitigation, and more.

Checkout past Geek Outs:

- Great Storage Debates
- NVMe over Fabrics
- Computational Storage
- SNIA Swordfish
- Storage Basics

# Upcoming SNIA Events

- **SNIA Storage Security Summit**
  - May 11, 2022; Virtual
- **SNIA Persistent Memory + Computational Storage Summit**
  - May 25–26, 2022; Virtual
- **SNIA SDC EMEA**
  - June 14, 2022; Virtual
- **Storage Developer Conference**
  - September 12–15, 2022; Fremont, CA



# Speak at an upcoming SNIA Event

STORAGE DEVELOPER CONFERENCE



*BY Developers FOR Developers*

## **SDC US 2022**

Event Dates: September 19-22, 2022

Call for Presentations Deadline: June 17, 2022

Taking place on September 19-22, 2022, SNIA's Storage Developer Conference (SDC) will bring the global storage developer community together to collaborate and network through the sharing of ideas, industry developments and best practices.

# Important SNIA Links

- <http://www.snia.org/standards/>
- <http://www.snia.org/software/>
- <http://www.snia.org/publicreview/>
  - Draft SNIA Technical Work available for public review
- <http://www.snia.org/feedback/>
  - Public feedback submission form for draft SNIA Technical Work
- <http://www.snia.org/dictionary/>
  - Current SNIA Dictionary
- <http://www.snia.org/library>
  - Educational Library
- <http://www.snia.org/webcasts>
  - SNIA Webcasts
- <http://www.storagedeveloper.org>
  - SNIA Storage Developer Conference (SDC)
- <http://www.snia.org/podcasts/>
  - SDC Podcasts