



Storage Networking Industry Association

Technical Activities Update

December 2022

SNIA Technical News: New SNIA Standard

- Smart Data Accelerator Interface (“SDXI”) Specification v1.0
 - Smart Data Accelerator Interface (SDXI) is a SNIA standard for a memory-to-memory Data Mover and acceleration interface.

SNIA Technical News: New SNIA Standard

■ TLS Specification for Storage Systems v2.1

- This document specifies the requirements and guidance for use of the Transport Layer Security (TLS) protocol in conjunction with data storage technologies. The requirements are intended to facilitate secure interoperability of storage clients and servers as well as non-storage technologies that may have similar interoperability needs. This document was developed with the expectation that future versions of SMI-S and CDMI could leverage these requirements to ensure consistency between these standards as well as to more rapidly adjust the security functionality in these standards.

SNIA Technical News: New SNIA Standard

- Computational Storage Architecture and Programming Model v1.0
 - This SNIA document defines recommended behavior for hardware and software that supports Computational Storage.

SNIA Technical News: New Public Review Draft

- Zoned Storage Models v0.9 rev 0
 - This SNIA document defines recommended behavior for hardware and software that supports Computational Storage.

SNIA Technical News: New Public Review Draft

- **Computational Storage API v0.8 rev 0**
 - This SNIA Draft Standard defines the interface between an application and a Computational Storage device (CSx). For each CSx there will need to be a library that performs the mapping from the APIs in this specification and the CSx on the specific interface for that CSx.

SNIA Public Review Drafts

- Zoned Storage Models v0.9 rev 0
- Computational Storage API v0.8 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!

<https://www.snia.org/publicreview>

Storage Developer Podcast: Latest Episode



This week's highlighted Podcast:

#177: NVM Express State of the Union – 2022 NVMe Annual Update by Nick Adams, Intel Corporation

NVM Express® (NVMe®) has become synonymous with high-performance storage with widespread adoption in client, cloud, and enterprise applications. The NVMe 2.0 family of specifications, released in June 2021, allow for faster and simpler development of NVMe solutions to support increasingly diverse environments, now including Hard Disk Drives (HDDs). The extensibility of the specifications encourages the development of independent command sets like Zoned Namespaces (ZNS) and Key Value (KV) while enabling support for the various underlying transport protocols common to NVMe and NVMe over Fabrics (NVMe-oF™) technologies. This presentation provides an overview of the latest NVMe technologies, summarizes the NVMe standards roadmap, and describes new NVMe standardization initiatives.

Learning Objectives: 1) Gain an overview of the latest NVMe technologies; 2) Summarize the NVMe standards roadmap; 3) Describe new NVMe standardization initiatives.

Storage Developer Podcast: Upcoming Episodes

- Key per IO - Fine Grain Encryption for Storage
- Storage Security Update for Developers
- SNIA SDXI internals and its journey towards standardizing Memory to Memory Data Movement
- The latest Efforts in the SNIA Computational Storage Technical Work Group
- Computational Storage: How Do NVMe CS and SNIA CS Work Together?
- DNA Data Storage Alliance - an Overview
- The DNA Data Storage Rosetta Stone Initiative
- SMB3 Landscape and Directions

Upcoming Event: 2023 SNIA Preview

The **2023 SNIA Preview** will be held on January 18, 2023. This *virtual* event will highlight the significant accomplishments and future plans of SNIA's Technical Work Groups (TWG), Forums and Initiatives (F&I), Committees, and Technology Affiliates (TA). *This is an outstanding opportunity and an inside look at the innovative technologies and exciting activities SNIA has planned for 2023!* Free and open to the public.

Recent SNIA Webcasts available on Demand

- Journey to the Center of Massive Data: Digital Twins
- What's in a Name? Memory Semantics and Data Movement with CXL™ and SDXI
- Kubernetes Trials & Tribulations: Cloud, Data Center, Edge
- EDSFF Taking Center Stage in the Data Center You've Been Framed! xPU, GPU & Computational Storage Programming Frameworks
- 15 Minutes in the Cloud: Kubernetes is Evolving, Are You?
- xPU Deployment and Solutions Deep Dive
- Kubernetes is Everywhere – What About Cloud Native Storage?
- Storage Life on the Edge: Accelerated Performance Strategies
- xPU Accelerator Offload Functions



SNIA[®] STORAGE BASICS



Geek Out on Data Privacy & Protection

Understanding Ransomware

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

SDC 2022 Conference Sessions Available On-Demand



SNIA Storage Developer Conference (SDC) 2022 was an enormous success! If you were not able to travel to SDC this year, here's a special offer: Register for just \$95 and **get access to the presentations and videos for 100+ technical sessions presented during the 4-day conference.**

The stellar list of experts at this year's conference provided first-hand insights on what's happening in technologies related to Cloud Storage, Computational Storage, CXL™, DPUs, Data Security, DNA Data Storage, NVMe®, SMB, Storage Resource Management and more. *Register today for instant access to this content.*

Note: On-site SDC'22 registrants still have full access to this content with their SDC'22 credentials.

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