



Storage Networking Industry Association

Technical Activities Update

December 2020



SNIA Technical News: New SNIA Standard

- Solid State Storage Performance Test Specification v2.0.2
 - This specification describes a solid state storage device-level performance test methodology, test suite and reporting format intended to provide an accurate, repeatable and reliable comparison of NAND Flash-based solid state storage products of various form factors, protocols and interfaces used in Client and Enterprise applications.

SNIA Technical News: New SNIA Standard

- Key Value Storage API Specification v1.1
 - This document describes the Key Value Storage (KVS) Application Program Interface (API) specification for SSD storage devices with Object Drive based Key Value Storage. It provides a set of APIs that are portable across multiple vendor SSD products.

SNIA Technical News: New Public Review DRAFT

- TLS Specification for Storage Systems v2.0

- 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 Public Review Drafts

- TLS Specification for Storage Systems v2.0
- Computational Storage Architecture and Programming Model v0.5 rev 1
- DRAFT CDMI Extensions and Profiles

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

Storage Developer Podcast: Latest Episode



This week's highlighted Podcast:

#136: Introducing SDXI by Shyamkumar Iyer, Distinguished Member of Technical Staff, Dell Office of CTO, Dell; and Richard Brunner, Principal Engineer and CTO of Server Platform Technologies, VMware.

Software-based memory-to-memory data movement is common, but takes valuable cycles away from application performance. At the same time, offload DMA engines are vendor-specific and may lack capabilities around virtualization and user-space access. This talk will focus on how SDXI (Smart Data Acceleration Interface), a newly formed SNIA TWG is working to bring an extensible, virtualizable, forward-compatible, memory to memory data movement and acceleration interface specification. As new memory technologies get adopted and memory fabrics expand the use of tiered memory, data mover acceleration and its uses will increase. This TWG will encourage adoption and extensions to this data mover interface.

Learning Objectives:

A new proposed standard for a memory to memory data movement interface. A new TWG to develop this standard. Use cases where this will apply to evolving storage architecture with memory pooling and persistent memory.

Storage Developer Podcast: Upcoming Episodes

- Caching on PMEM: an Iterative Approach
- NVMe 2.0 Specification Preview
- Use cases for NVMe-oF for Deep Learning Workloads and HCI Pooling
- libnvme: An open source library for NVM Express
- Unlocking the New Performance and QoS Capabilities of the Software Enabled Flash™ API
- ZNS: Enabling in-place updates and transparent high queue-depths
- Deep Compression at Inline Speed for All-Flash Array
- Key Value Standardized
- The Future of Accessing Files remotely from Linux: SMB3.1.1 client status update
- Understanding Compute Express Link (CXL): A Cache-coherent Interconnect

Missed SDC 2020? We've Got You Covered

Storage Developer Conference

SDC 20

BY Developers FOR Developers

Virtual Conference:
Watch All the Presentations
On-Demand Now!

SNIA's Storage Developer Conference (SDC) took place virtually in September to an audience of nearly 1,000 storage experts. **While the virtual conference has ended, the content is now available on-demand.**

The SDC 2020 agenda is packed with over 130 on-demand sessions on topics covering *NVMe-oF, Computational Storage, Storage Architecture, Zoned Storage, Storage Resource Management, Orchestration, SMB*, and much more.

Geek Out on Computational Storage



**Computational Storage -
Start from the Beginning**

<http://www.snia.org/geekout>

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.sniacloud.org>
 - Latest news on SNIA Cloud activities
- <http://www.storagedeveloper.org>
 - SNIA Storage Developer Conference (SDC)
- <http://www.snia.org/podcasts/>
 - SDC Podcasts