



# Storage Networking Industry Association

## Technical Activities Update

June 2022



# SNIA Technical News: New ISO Standard

- Cloud Data Management Interface (CDMI) v2.0
  - CDMI v2.0 has now been published as **ISO/IEC 17826:2022**
  - The Cloud Data Management Interface defines the functional interface that applications use to create, retrieve, update and delete data elements from the Cloud. As part of this interface the client is able to discover the capabilities of the cloud storage offering and use this interface to manage containers and the data that is placed in them. In addition, metadata can be set on containers and their contained data elements through this interface.

# SNIA Technical News: New Public Review Draft

- **Swordfish Scalable Storage Management API Specification v1.2.4**
  - The Swordfish Scalable Storage Management API defines a RESTful interface and a standardized data model to provide a scalable, customer-centric interface for managing storage and related data services.

# SNIA Public Review Drafts

- Swordfish Scalable Storage Management API v1.2.4
- 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!***

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

# Storage Developer Podcast: Latest Episode



This week's highlighted Podcast:

**#169: Completing the Picture for NVMe and NVMe-oF Management: Guidelines for Implementations** by Curtis Ballard, Distinguished Technologist, HPE

The SNIA Swordfish specification has expanded to include full NVMe and NVMe-oF enablement and alignment across DMTF, NVMe, and SNIA for NVMe and NVMe-oF use cases. This presentation will provide an overview of the most recent work adding detailed implementation requirements for specific configurations, ensuring NVMe and NVMe-oF environments can be represented entirely in Swordfish and Redfish environments.

Learning Objectives: 1) Describe how the NVMe and NVMe-oF environments can be managed in Swordfish and Redfish; 2) Provide an overview of current work in progress to extend NVMe and NVMe-oF manageability in Swordfish; 3) Describe the updated guidance for implementations in Swordfish profiles and documentation.

# Storage Developer Podcast: Upcoming Episodes

- Computational Storage Moving Forward with an Architecture and API
- DNA Data Storage and Near-Molecule Processing for the Yottabyte Era
- Emerging Storage Security Landscape
- Facts, Figures and Insights from 250,000 Hard Drives
- Fine Grain Encryption Control for Enterprise Applications
- Sanitization – Forensic-Proofing Your Data Deletion
- Computational Storage Update from the SNIA Working Group
- SNIA SDXI Roundtable: Towards Standardizing a Memory to Memory Data Movement and Acceleration Interface

# Next SNIA LIVE Webcasts

## ■ Is the Data Really Gone? A Primer on the Sanitization of Storage Devices

- **Wednesday, June 29, 2022. 9:00 am PT / 12:00 noon ET**
  - What do you think is a more secure way of securely removing data from a hard drive - putting it through a shredder, or doing an instant secure erase? The answer might surprise you! Companies go to great lengths to secure their data and prevent confidential information from being made available to others. When a company is done using its ICT equipment, including the storage device, it is important to render the data inaccessible. Sanitization is a process or method to render access to target data on storage media infeasible for a given level of effort. SSDs and HDDs have various security features that make this sanitization quick, secure, and verifiable.
  - In this webcast, we will go over the different types of sanitization defined in the new IEEE P2883 Specification for Sanitization of Storage and cover easy ways to perform “Clear”, “Purge,” and “Destruct in mainstream storage interfaces like SATA, SAS, and NVMe. We discuss recommendations for the verification of sanitization to ensure that devices are meeting stringent requirements and explain how the purge technique for media sanitization can be quick, secure, reliable, and verifiable - and most importantly keeps the device in one piece.

# Next SNIA LIVE Webcasts

## ■ xPU Accelerator Offload Functions

■ Wednesday, June 29, 2022. 11:00 am PT / 2:00 pm ET

- As covered in our first webcast “SmartNICs and xPUs: Why is the Use of Accelerators Accelerating,” we discussed the trend to 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.
- This second webcast in this series will cover a deeper dive into the accelerator offload functions of the xPU. We’ll discuss what problems the xPUs are coming to solve, where in the system they live, and the functions they implement, focusing on:
  - Network Offloads
  - Security
  - Compute
  - Storage



# Upcoming SNIA LIVE Webcasts

## ■ Storage Life on the Edge: Accelerated Performance Strategies

■ Tuesday, July 12, 2022. 10:00 am PT / 1:00 pm ET

■ Edge is the new frontier of compute and data in today's world, driven by the explosive growth of mobile devices, work from home, digital video, smart cities, and connected cars. An increasing percentage of data is generated and processed at the edge of the network. With this trend comes the need for faster computing, access to storage, and movement of data at the edge as well as between the edge and the data center. Attend this SNIA Networking Storage Forum webcast on June 15, 2022 where we will discuss:

- The increasing need to do more at the edge across compute, storage and networking
- The rise of intelligent edge locations
- Different solutions that provide faster processing or data movement at the edge
- How computational storage can speed up data processing and transmission at the edge
- Security considerations for edge processing

■ We look forward to having you join us to cover all this and more. We promise to keep you on the edge of your virtual seat!



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

# Upcoming SNIA Events

- Storage Developer Conference
  - September 12–15, 2022; Fremont, CA

# Speak at an upcoming SNIA Event



## **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