

A decorative horizontal bar is located at the top of the page, below the SNIA logo. It consists of a series of colored squares in shades of purple, blue, orange, and yellow, arranged in a repeating pattern.

Storage Networking Industry Association (SNIA)

Technical Activities Update

December
2018

- SNIA's application for reaffirmation as a PAS Submitter for an additional 5-year term has been approved by ISO
 - ◆ SNIA's PAS Submitter status is in effect until September 2023.

➤ Computational Storage TWG

- ◆ The Computational Storage TWG is created for the purpose of establishing architectures and software for disk and solid state drive based functionalities that allow them to be integrated with Computation in its many forms. The TWG creates software and standards that enable specific features for these drives that meet the requirements of customers with these computational needs.

SNIA Technical News

New SNIA Technical Position



- **Storage Management Initiative Specification (SMI-S) v1.8.3**
 - ◆ SMI-S defines a method for the interoperable management of a heterogeneous Storage Area Network (SAN), and describes the information available to a WBEM Client from an SMI-S compliant CIM Server and an object-oriented, XML-based, messaging-based interface designed to support the specific requirements of managing devices in and through SANs. Developer support for SMI-S is available through the SNIA SMI-S Google group.

➤ Persistent Memory Hardware Threat Model v1

- ◆ This white paper discusses approaches for securing persistent memory (PM); particularly considering unique characteristics of PM. This work includes a threat model, potential responses to threats and recommended security requirements for PM.

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

- **Swordfish Scalable Storage Management API v1.0.7a**
 - ◆ The Swordfish Scalable Storage Management API ("Swordfish") uses RESTful interface semantics and a standardized data model to provide a scalable, customer-centric interface for managing storage and related data services..

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

SNIA Technical News

New Public Review DRAFT



➤ Key Value Storage API Specification v0.16 DRAFT

- ◆ This draft specification defines an application programming interface for Key Value Object drives.

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

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- Swordfish Scalable Storage Management API v1.0.7a
- Key Value Storage API Specification v0.16
- DRAFT CDMI Extensions and Profiles

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

Storage Developer Podcast: Latest Episode



This week's highlighted Podcast:

#81: FPGA-Based ZLIB/GZIP Compression Engine as an NVMe Namespace by Stephen Bates, Chief Technology Officer, Eidetic

Today's exponential growth of Big-Data makes lossless compression one of the most important operations in a data center as it expands storage capacity, reduces storage costs and speeds up data access. Off-loading compression from processors to FPGAs can free up valuable CPU time while reducing compression time and power consumption. Moreover, sharing accelerators across a data center can further improve resource utilization and lower operation costs.

Here, we present an efficient FPGA implementation of a GZIP/ZLIB accelerator which can compress the data at up to 1.7GB/s using about 30KLUTs on a Virtex-7 device. This accelerator is presented as an NVMe namespace via the Eideticom NoLoad platform which allows users to access it locally or across the network using standard NVMe and NVMe over Fabrics drivers available in major operating systems. We also present the software API to access this accelerator which relies on the high-performance inbox NVMe drivers and uses a user-space framework to provide both local and remote access to this accelerator.

Storage Developer Podcast: Upcoming Episodes



- Eusocial Storage Devices: Offloading Data Management to Storage Devices that Can Act Collectively
- OpenStack Cinder as an SDS API
- Deployment of In-Storage Compute with NVMe Storage at Scale and Capacity

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

SDC
18

9/24-9/27 Santa Clara, CA

**Storage Developer
Conference
2018**

***All presentations with video now
available online!***

www.storagedeveloper.org

SNIA Annual Members' Symposium **Monday, January 21 – Friday, January 25, 2019** **Santa Clara, CA**

Don't miss the SNIA Annual Members' Symposium where you and your colleagues can join together for networking, working group meetings, informative keynote sessions, and other unique programs designed for SNIA members. There is no cost to attend.

The SNIA logo is positioned vertically on the left side of the header, with the letters "SNIA" stacked and a small square icon to the right.

PERSISTENT MEMORY PIM SUMMIT

JANUARY 24, 2019 | SANTA CLARA, CA

- ◆ Sponsorship opportunities available!
- ◆ Check out presentations and videos from the 2018 Persistent Memory Summit
 - ◆ <https://www.snia.org/pm-summit>

Important SNIA Links

- <http://www.snia.org/standards/>
- <http://www.snia.org/software/>
- <http://www.snia.org/publicreview/>
- <http://www.snia.org/feedback/>
 - ◆ Public feedback submission form for draft SNIA Technical Work
- <http://www.snia.org/dictionary/>
 - ◆ Current SNIA Dictionary
- <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