

Storage Networking Industry Association (SNIA)

Technical Activities Update

June 2018

- Real World Storage Workload (RWSW) Performance Test Specification for Datacenter Storage v1.0.7
 - ◆ This Real World Storage Workload Performance Test Specification describes a real-world storage workload IO capture, characterization, methodology, test suite and reporting format. It is intended to provide standardized analysis of in-situ target server application storage performance and standardized comparison and qualification of Datacenter storage when using Reference IO Capture Workloads as the test stimuli in RWSW tests.

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

SNIA Technical News

New SNIA Technical Position



➤ Swordfish Scalable Storage Management API v1.0.6

- ◆ 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/swordfish>

➤ Persistent Memory Hardware Threat Model v0 rev 9 DRAFT

- ◆ 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/publicreview>

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- **Persistent Memory Hardware Threat Model v0 rev 9**
- Storage Management Initiative Specification (SMI-S) v1.8.0r1
- Simple IP Based Drive Mockup-4
- IP Based Drive Array Mockup-2
- CDMI Test Specification v1.0a DRAFT
- CDMI Reference Implementation v1.0e DRAFT
- DRAFT CDMI Extensions and Profiles

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

Storage Developer Podcast: Latest Episode



This week's highlighted Podcast:

#70: SPDK Blobstore: A Look Inside the NVM Optimized Allocator by Paul Luse, Principal Engineer, Intel, and Vishal Verma, Performance Engineer, Intel

The Storage Performance Development Kit (SPDK) is an open source set of tools and libraries for writing high performance, scalable, user-mode storage applications. It achieves high performance by moving all of the necessary drivers into userspace and operating in a polled mode instead of relying on interrupts. The Blobstore is a relative newcomer to SPDK and provides local, persistent, power-fail safe block allocator designed to replace filesystem usage in many popular databases. Most importantly, the Blobstore has been designed for the properties of flash and next-generation media from the start and directly leverages NVMe features. The team has already ported a popular embedded key/value database, RocksDB, to use the Blobstore which demonstrated a significant improvement for database queries under common workloads. In this session we will explore the basics of the Blobstore and review some of the latest exciting performance data!

Storage Developer Podcast: Upcoming Episodes



- Azure File Service: Expectations vs. Reality on the Public Cloud
- Self-Optimizing Caches
- SoftFlash: Software-Defined Flash for Programmable Storage
- Innovations, Challenges, and Lessons Learned in HPC Storage Yesterday, Today, and Tomorrow
- Key Value SSD Explained – Concept, Device, System, and Standard
- Dip your Toe in the Water: A Swordfish Introduction

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

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