

# **How to Participate in SNIA Standards & Software Development**

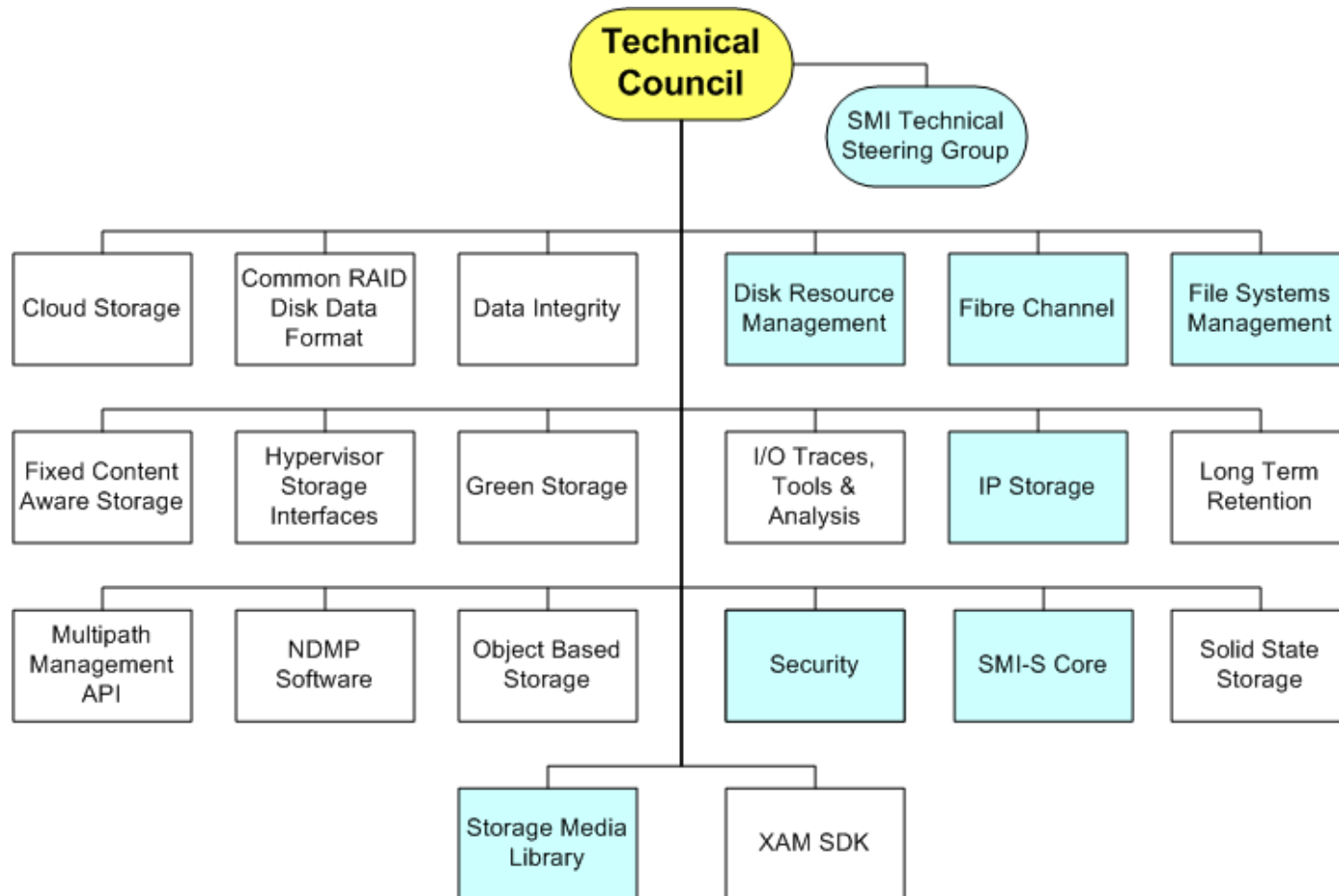
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The SNIA develops a wide range of standards to enhance the interoperability of various storage systems. Under the guidance of the SNIA Technical Council, the SNIA Technical Work Groups (TWGs) deliver information, standards, and software that accelerate the adoption of storage networking. They support the SNIA mission charting a course for the storage networking industry

# Technical Work Groups



Key: Involved in SMI-S Provisional

## ➤ Cloud Data Management Interface (CDMI)

- ◆ The Cloud Data Management Interface defines the functional interface that applications will use to create, retrieve, update and delete data elements from the Cloud.

## ➤ Common RAID Disk Data Format (DDF) Specification

- ◆ The Common RAID Disk Data Format specification defines a standard data structure describing how data is formatted across the disks in a RAID group. The Disk Data Format (DDF) structure allows a basic level of interoperability between different suppliers of RAID technology.

## ➤ Common Trace Semantics Specification

- ◆ The Common Trace Semantics Specification defines common, recommended semantics for data in I/O traces. Standardized I/O trace semantics will enable the development and use of common I/O trace collection and analysis tools as well as facilitate the sharing of the I/O traces themselves.

## ➤ Common Trace Format Specification

- ◆ The Common Trace Format Specification defines standard formats for different types of I/O traces. Standardized I/O trace formats will enable the development and use of common I/O trace collection and analysis tools as well as facilitate the sharing of the I/O traces themselves.

## ➤ Data Integrity Specification

- ◆ The Data Integrity Specification defines a standardized means of providing end to end data integrity between an application and storage devices.

## ➤ eXtensible Access Method (XAM) Specification

- ◆ The XAM standard is an application to storage interface which empowers meta-data to instrument the automation of information-based management. This new interface gives applications a standard interface and metadata to communicate with object storage devices such as those characterized as "Fixed Content Aware Storage" to achieve interoperability, storage transparency, and automation for ILM-based practices, long term records retention, and information assurance (security).

- **Green Storage Power Efficiency Measurement Specification**
  - ◆ The Green Storage Power Efficiency Measurement Specification identifies metrics by which energy consumption and efficiency of storage networking products can be measured for the purposes of new product development, end-user customer evaluation, and regulatory standards development.
  
- **Hypervisor Storage Interfaces (HSI) TWG**
  - ◆ The HSI TWG's overall goal is the extension to and/or development of standard interfaces for storage interactions (including, but not limited to provisioning, management, control and I/O operations) with and through hypervisors (the term "hypervisor" is used here in the generic sense).

## ➤ Multipath Management API (MMA)

- ◆ The Multipath Management API allows a management application to discover the multipath devices on the current system and to discover the associated local and device ports. An implementation of the API may optionally include active management (failover, load balancing, manual path overrides).

## ➤ Object-Based Storage Device (OSD) Specification

- ◆ The OSD specification defines low-level storage device functions that enable accessing a storage device through a standard object interface rather than a traditional block-based interface such as SCSI or IDE. The OSD specification is published through INCITS T10 as part of the SCSI standard.

## ➤ Self-Contained Information Retention Format (SIRF) Specification

- ◆ A specification that defines a logical container format appropriate for the long-term storage of digital information.



## ➤ Solid State Storage Performance Test Specification

- ◆ The SNIA is developing methods enabling manufacturers to set, and customers to compare, the performance specifications of Solid State Storage (SSS) devices, which are evolving with the state of the technology. This specification defines a set of device level tests and methodologies to enable comparative testing of Solid State Storage (SSS) devices.

## ➤ Storage Management Initiative Specification (SMI-S)

- ◆ 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.

## ➤ CDMI Reference Implementation

- ◆ The CDMI Reference Implementation is a SNIA Software development project that implements the Cloud Data Management Interface.

## ➤ NDMP V4 Software

- ◆ The NDMP V4 Software is a SNIA Software development project that implements version 4 of the NDMP standard, including extensions to the standard.

## ➤ XAM Software Development Kit

- ◆ The XAM Software Development Kit (XAM SDK) is a SNIA Software development project that implements the XAM Specification, an industry standard for fixed content storage.

## ➤ I/O Traces & Tools and Analysis (IOTTA) Repository

- ◆ The I/O Traces, Tools and Analysis (IOTTA) TWG has created a worldwide repository for I/O trace collection and analysis tools, application workloads, I/O traces of workloads, and best practices around such topics. The repository is located at <http://iotta.snia.org>.

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

- CDMI Reference Implementation v1.0b DRAFT
- Storage Management Initiative Specification (SMI-S) v1.6r1 DRAFT
- Green Storage Power Efficiency Measurement Specification v0.2.10 DRAFT
- Common Trace Semantics Specification v1.0 rev 11 DRAFT
- Solid State Storage Performance Test Specification v0.9 DRAFT
- Cloud Storage Reference Model v0.3 Trial-Use Draft
- Cloud Storage Use Cases v0.5 Trial-Use Draft

**Check them out! - *Participate in their development!***

# Key Benefits in Actively Participating

- Make sure the next revision of the standard meets the technical requirements of your company.
- Gain in-depth knowledge of the details in the standard being developed and as a result become an expert on the standard.
  - ◆ *Fastest way to become an Expert is through participation, not just reading the standard!*
- Work with and get assistance from the other Experts on the standard as you develop your implementation of the standard.
- Participate in the development and become an expert in the Software being developed in support of the standard.

SNIA Technical Council is always ready to receive proposals for a new TWG.

## ➤ To start a new TWG

- ◆ Identify a new need
- ◆ Socialize with other SNIA Members
- ◆ Propose new TWG to SNIA Technical Council.
  - › Requires a minimum of 3 SNIA Members who agree to actively participate

## ➤ Guidelines for the Approval of SNIA Technical Work Groups

# Your next steps!

- Contact SNIA Technical Council Managing Director at [tcmd@snia.org](mailto:tcmd@snia.org)
  - ◆ Guide you in the right direction to start participating
- **REMEMBER** – it is easy to participate virtually
  - ◆ E-mail reflectors
  - ◆ Conference calls with Webex
- **Become an Expert, get involved today!**

# Questions?