

#### The Power of Three



- Chair Update (10 min)
- TC Update (15 min)
- Awards and Honors (25 min)
- Member Discussion/Feedback (20-30 min)



## New Way of Doing Things

- End-to-End Leadership Model
  - Everyone on the Board/TC participates
  - Champion success throughout SNIA and beyond
- Tackle long-term projects and associated tasks
  - What are the SNIA dependencies? (e.g., Related groups, budgets, external alliances, communication needs, legal impacts, resources)
- Ask the questions, find the answers
- Drive SNIA goals/milestones
  - Use resources and oversee progress
  - Facilitate alliances with external orgs
- Generate interest and recruit resources/participants
- Communicate results and awareness inside and outside SNIA





## Data/Storage Directions for SNIA (2021)

- Security/Privacy
- Storage/Data Management
- New Uses of Storage Memory (was computational storage, PM, SmartNICs, etc.)
- Storage Software/Software-Defined Storage/Disaggregated Storage/Containerized Storage
- Energy Efficiency
- Cloud





## Participation Required

- Security/Privacy
- Storage/Data Management
- New Uses of Storage Memory (was computational storage, PM, SmartNICs, etc.)
- Storage Software/Software-Defined Storage/Disaggregated Storage/Containerized Storage
- Energy Efficiency
- Cloud







# Technical Council

2020 Review and 2021 Plans

Presented by Bill Martin and Mark Carlson tcchair@snia.org



#### **SNIA Technical Council**

- Made up of technology leaders from across the industry
- Oversees the technical work of the SNIA
- Create and oversee the Technical Work Groups (TWGs) to:
  - Carry out the technical activities of the SNIA
  - Guide where best to develop that work
  - Review and approve the technical standards, architectures, and software produced
- Prepares general industry white papers on technology relevant to storage
- Maintains the Technical Work Group Policies and Procedures document
- Develops and produce the SNIA Storage Developer Conference (SDC)
  - Assist in the production of SDC EMEA and SDC India
- Maintains the SNIA Dictionary



#### Technical Council 2021 Plans

- Possible technical work in the following areas
  - Consumer storage
  - DPU
  - Accelerating time-to-productivity for storage professionals and students
  - Standardization of device ID-based features to reduce SKU proliferation



## 2020 Technical Accomplishments



### 2020 New Technical Work Groups

- Blockchain Storage TWG
  - The Blockchain Storage TWG is created for the purpose of establishing architectures and software for blockchain storage. This TWG creates software and standards that enable specific features for these devices that meet the requirements of stakeholders with Blockchain Storage needs.
  - https://www.snia.org/blockchain
- Smart Data Accelerator Interface (SDXI) TWG
  - The SDXI TWG develops and standardizes an extensible, forward-compatible memory to memory data movement and accelerator interface that is independent of actual data movement and data acceleration implementations and underlying I/O interconnect technology.
  - https://www.snia.org/sdxi



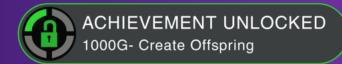
## Update on NVM Programming TWG

- The NVM Programming TWG has completed:
  - NVM Programming Model v1.2
  - NVM PM Remote Access for High Availability v1.0
  - Persistent Memory Threat Model
- With the completion of the program of work this TWG has been deactivated.
- If there is future work in the area of Persistent Memory, a new TWG may be formed.



#### 2020 Achievements – Technical Publications

#### **SNIA Standards**



- Cloud Data Management Interface (CDMI) v2.0.0
- Key Value Storage API Specification v1.1
- Native NVMe-oF Drive Specification v1.0.1
- SNIA Emerald™ Power Efficiency Measurement Specification v4
- Storage Management Initiative Specification (SMI-S) v1.8r5
- TLS Specification for Storage Systems v1.1
- Swordfish Scalable Storage Management API Specification v1.2



#### 2020 Achievements – SNIA ISO Standards

- Linear Tape File System (LTFS) Format Specification v2.5
  - Approved as ISO/IEC 20919:2020
  - ISO publication in process
- Storage Management Initiative Specification (SMI-S) v1.8r5
  - Approved as ISO/IEC 24775:2020
  - ISO publication in process
- Swordfish 1.1.0d
  - Submitted to ISO for standardization
  - ISO ballot closing April 13<sup>th</sup>



### Documents that completed a public review in 2020

- SNIA Swordfish v1.2.1a
- SNIA Swordfish Storage Profiles Bundle v1.2
- NVMe to RF/SF Model Mapping
- Persistent Memory Performance Test Specification White Paper v0.7.3



### Documents currently out for Public Review

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

http://www.snia.org/publicreview

#### 2020 Achievements – SFF TA TWG

- SFF-8071 v1.1
  - SFP+ 1X 0.8mm Card Edge Connector
- SFF-9639 v2.1
  - Multifunction 6X Unshielded Connector Pinouts
- SFF-TA-1002 v1.3
  - Protocol Agnostic Multi-Lane High Speed Connector
- SFF-TA-1005 v1.3
  - Universal Backplane Management
- SFF-TA-1006 v1.4
  - Enterprise and Datacenter 1U Short SSD Form Factor (E1.S)
- SFF-TA-1017 v1.0a
  - Vertical SFF-TA-1002 Connector SI Test Board Specification
- SFF-TA-1018 v1.0
  - Right Angle SFF-TA-1002 Connector SI Test Board

Specification

- SFF-TA-1019 v1.0
  - Straddle Mount SFF-TA-1002 Connector SI Test Board Specification
- SFF-TA-1020 v1.0
  - Cables and Connector Variants Based on SFF-TA-1002
- SFF-TA-1021 v1.0
  - PCIe Enclosure Compatible Form Factor (PECFF)
    Specification
- SFF-TA-1022 v1.0
  - PCIe Enclosure Compatible Form Factor (PECFF) Thermal Reporting Specification
  - REF-TA-1012 v1.0
    - Pin Assignment Reference for SFF-TA-1002 Connectors



## Bringing New Technical Work into SNIA

- Do you have an idea for a new technical standard or a proprietary standard you would like to standardize?
- Find two other SNIA companies that agree with you
  - Statements of support from at least three active SNIA Member companies are a prerequisite for TWG approval. "Support" includes intent to actively participate in the TWG
- Create a proposal and present to the Technical Council for review and approval
  - Prepare a draft charter and proposed Program of Work
- Complete details are located in the <u>Guidelines for the Approval of SNIA TWGs</u>
- Need help with the process? Send an email to tcmd@snia.org
- Other ideas for SNIA to get involved in? Send an email to tcchair@snia.org







# SNIA 2020 Volunteer of the Year

is hereby granted to:



Bill Martin Samsung



# SNIA 2020 Exceptional Leadership Award

is hereby granted to:



Jason Molgaard Arm, Inc.



# SNIA 2020 Unsung Hero Award

is hereby granted to:



**Eric Hibbard**PrivSec Consulting LLC



# SNIA 2020 New Contributor of the Year

is hereby granted to:

Raj Ramanujan Western Digital



# Significant Impact by a Previously Existing Technical Work Group (TWG) or Task Force

is hereby granted to:

# **Object Drive TWG**



# SNIA 2020 Group of the Year

is hereby granted to:

**SDC Committee** 





## HALL OF FAME

**Profile in Achievement Recognition** 

Honoring and inducting



David Dale 2013 - 2020 Chair, SNIA Board of Directors



## HALL OF FAME

**Profile in Achievement Recognition** 

Honoring and inducting



Robert Peglar 2003-2011, 2015-2020 SNIA Board of Directors

