

# SNIA: Chair Update

J Metz, Chair

# The Power of Three... plus



- Chair Update (10 min)
- TC Update (15 min)
- Awards and Honors (20 min)

And then...

- Member Discussion/Feedback (20 min)



# SNIA<sup>®</sup> Overview

- SNIA brings together >90% of the storage industry companies and corresponding supply chain
  - Enables industry to quickly spin-up technical or special interest groups to address global storage challenges
- 12 Technical Work Groups, that effectively deliver storage standards to the industry with greater speed and efficiency than 12 separate SDOs can do
  - Resource, time, and money savings for member companies
- ISO Standards: 1 in process; 5 approved in the last two years
- Limited regulatory and product compliance work; pushing the limits impacts our own members (cost, sales, etc.)
- 2021 focused on self reflection, analysis, and improvement
- 2022/23 looking at areas of impact and influence
  - Need to have member champions
  - Lots of ideas, not enough “doers”

### **13 Technical Work Groups (TWGs)**

Management, Hardware Form Factors, Persistent Memory, Computational Storage, Data Movement, Security and Privacy, Power and Energy Efficiency

### **ISO Standards**

5 approved in last 2 years  
1 in progress

### **Government Regulations**

EPA and “Green” power requirements

### **Education**

Conferences, Developer Hackathons, Academia, Expert-led educational webinars and forums

# SNIA 2021 - IMPACT

- **Power Efficiency:** EPA engagement and input on storage power measurements
- **New and emerging standards**
  - *Computational Storage:* 52 industry companies are driving architecture and open APIs
  - *CDMI:* cloud storage specification has been submitted to ISO (gov regulations generally reference ISO)
  - *LTFs:* new use cases extended outside of tape media
  - *Persistent Memory:* Persistent Memory over Fabrics (PMoF), CXL standards-integration and programming models
  - *SNIA Swordfish:* Management specification; alliances with implementations in production; Conformance test launching
  - *SDXI:* 27 industry companies are driving to a 1H'2022 release of 1.0 specification
  - *Zoned Storage:* new group and work kicked off in 2021
  - *Form factors for storage:* Enterprise and Datacenter SSD Form Factor (E3) and 10-20+ other specifications annually
- **Education:** +3,000 storage engineers participate globally in the Storage Developer Conference and SNIA technical work



# Data/Storage Directions for SNIA (2022)

- 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

2021 Review and 2022 Plans

Presented by Bill Martin and Mark Carlson

[tcchair@snia.org](mailto: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 2022 Plans

## ■ Work in Process

- On demand PDF version of the Dictionary
- Continued SNIA Dictionary review
- Review and update of published TC white papers
- 161 SDC Podcasts
- 27 SDC Weekend Watch

## ■ Technology areas being explored

- Circularity / sustainability of storage products
- DPU
- Accelerating time-to-productivity for storage professionals and students
- White paper on issues that data placement attempts to resolve



# 2021 Technical Accomplishments

# 2021 New Technical Work Groups

- Zoned Storage TWG

- Formed to facilitate a common industry understanding of Zoned Storage use cases and host/device architecture and programming model, providing a framework for zoned storage SW and HW design, and enabling the development of a robust Zoned Storage solutions ecosystem.

# 2021 Achievements – Technical Publications

## SNIA Standards

- Swordfish Scalable Storage Management API Specification v1.2.3
- Native NVMe-oF Drive Specification v1.1
- Swordfish Scalable Storage Management API Specification v1.2.2
- TLS Specification for Storage Systems v2.0



# 2021 Achievements – SNIA ISO Standards

- **Storage Management Initiative Specification (SMI-S) v1.8r5**
  - Approved as ISO/IEC 24775:2021, published by ISO on April 7, 2021
- **Linear Tape File System (LTFS) Format Specification v2.5**
  - Approved as ISO/IEC 20919:2021, published by ISO on July 27, 2021
- **Swordfish 1.1.0d**
  - Approved as ISO/IEC 5965:2021, published by ISO on August 24, 2021
- **Cloud Data Management Interface Version 2.0**
  - ISO/IEC DIS 5733 approved, publication in process



# Documents currently out for Public Review

- 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
- CDMI Extensions and Profiles

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

# 2021 Achievements – SFF TA TWG

- SFF-8472
  - Management Interface for SFP+
- SFF-TA-1005 v1.4
  - Universal Backplane Management (UBM)
- SFF-TA-1006 v1.5
  - Enterprise and Datacenter 1U Short Device Form Factor (E1.S)
- SFF-TA-1007 v1.2
  - Enterprise and Datacenter 1U Long Device Form Factor (E1.L)
- SFF-TA-1009 v3.0a
  - Enterprise and Datacenter Standard Form Factor Pin and Signal Specification (EDSFF)
- SFF-TA-1016 v1.0
  - Internal Unshielded High Speed Connector System
- SFF-TA-1023 v1.0a
  - Thermal Characterization Specification for EDSFF Devices
- SFF-TA-1026 v1.0
  - Storage System High Speed Cable Interconnect



# 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 [Guidelines for the Approval of SNIA TWGs](#)
- Need help with the process? Send an email to [tcmd@snia.org](mailto:tcmd@snia.org)
- Other ideas for SNIA to get involved in? Send an email to [tcchair@snia.org](mailto:tcchair@snia.org)



# 2021 Volunteer Recognition Awards

January 25, 2022





**SNIA 2021**  
**Volunteer of the Year**

is hereby granted to:



**Richard Brunner**  
**VMware**





**SNIA 2021**  
**Exceptional Leadership Award**

is hereby granted to:



**Vera Koleva**  
**Finisar Corporation**



**SNIA 2021**  
**Unsung Hero Award**

is hereby granted to:



**Krishnakumar  
Gowravaram**  
Cisco



**SNIA 2021**  
**New Contributor of the Year**

is hereby granted to:



**Oscar Pinto**  
**Samsung**



**SNIA 2021**  
**Excellence in Education**

is hereby granted to:



**Tom Coughlin**  
**Coughlin Associates**





**SNIA 2021**  
**Excellence in Education**

is hereby granted to:



**John Kim**  
**NVIDIA**



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

is hereby granted to:

**Computational Storage TWG**



**SNIA 2021**  
**Group of the Year**

is hereby granted to:

**SDXI TWG**

# In Memoriam

- **Roger Cox, Storage Research VP, Gartner**

- Roger worked at Gartner for 22 years. His research and opinions were respected by all. We have lost one of the greatest influencers of the Storage industry. I think everyone in the storage industry will no doubt always have in the back of their minds – “What would Roger say about this?”



- **Jay Neer, Engineer, Molex**

- Jay was retired as an Engineer from both Molex and IBM. He was a longtime member of the SNIA SFF Technology Affiliate TWG, former secretary of FCIA, former board member of SCSI Trade Association (STA). Jay was also the editor of many SFF documents over the years.







# Member Discussion

Share your thoughts

Suggest important directions

Volunteer!

# Major Storage Initiatives for the Future

- Expansion of Storage
  - Memory/Storage Crossover
  - Data Movers
- Security/Privacy
- Alliances SNIA Should Be Considering?
- Regulation Impacts
  - Should SNIA take positions on governmental policy decisions?

