



# 2021 ANNUAL MEMBERS MEETING

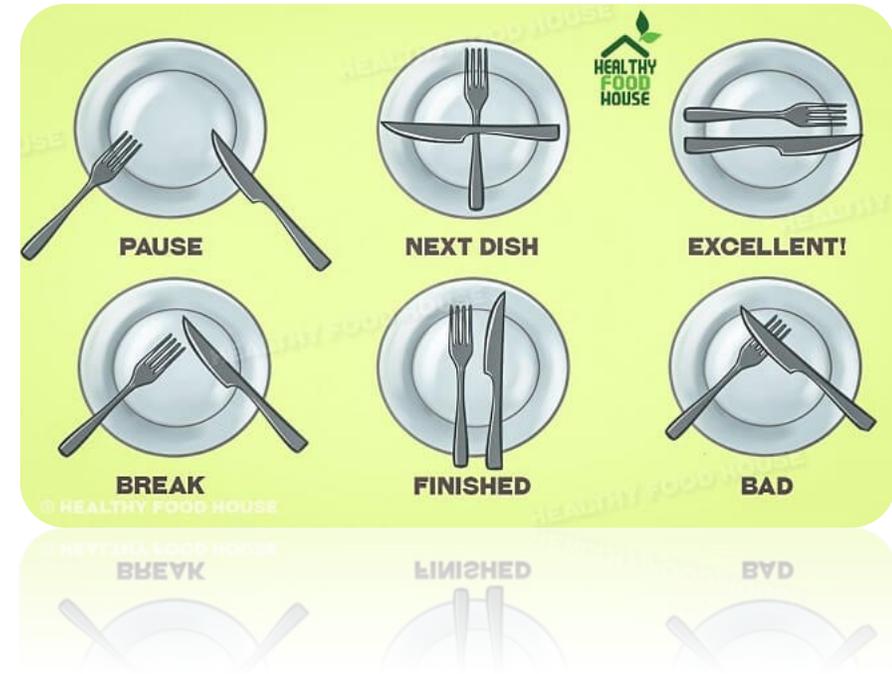
October 21, 2021

8AM Pacific / 11AM Eastern – Teleconference  
(See Next Page for Dial-in and Zoom Instructions)



# Zoom Format – Attendee Guidance

- Enter Name (Company) on your Zoom Login/Attendee Info
- Everyone will be on Mute, except the Moderator/Speaker
- You can unmute yourself if you would like to say something
  - Voting Member Company Primary/Alternate representatives, please identify yourself when joining
- Remain on Mute when not speaking
- Use the Chat Icon to text message the group or a particular person
- Use Raised Hand function under “Reactions” icon



# 2021 Annual Members Meeting Agenda

- Greetings and Roll Call – Michael Oros, Executive Director
- FY2020: Annual Report published
  - Motion to Approve 2020 Meeting Minutes – Richelle Ahlvers, SNIA Secretary
  - Fiscal Report (2020 Annual Report) – Sue Amarin, SNIA Treasurer
- FY2021: SNIA update and achievements to date – Michael Oros, Executive Director
- FY2022: What's ahead for SNIA – J Metz, Ph.D, SNIA Chair
- Discussion and Q&A – Members and SNIA Board Members
- Announcement of the 2021 Board and Technical Council Election Results – Michael Oros, Executive Director
- Adjourn



# Roll Call and Approval of 2020 Minutes

- Roll Call of Voting Member Companies
- Primary Representatives of Voting Member Companies
  - Please identify yourselves during Roll Call
- If you work for a Voting Member Company and do not hear your primary representative, please identify yourself during roll call
  - Proxy representation is Accepted at Annual Members Meeting
- Vote to approve 2020 Meeting Minutes will take place upon quorum being met

**Roll  Call**

# Roll Call:

## Roster of Voting Companies and Primary/Voting Representatives

- Leah Schoeb, AMD
- Jason Molgaard, ARM
- Steve Wilson, Broadcom
- Dan Hanson, Shalom Shefa, Cisco
- Bill Elliott, Dell Inc.
- Paul Von-Stamwitz, Fujitsu America Inc.
- Victor Cao, Futurewei\*
- Chris Lionetti, Curtis Ballard, HPE
- Tim Lofink, Hitachi Data Systems
- Yolanda Fang, Huawei Technologies\*
- Roger Hathorn, IBM
- Artanis Wang, Inspur
- Richelle Ahlvers, Intel Corporation
- Mark Carlson, Kioxia Corporation
- Wang Zhenhao, MacroSAN
- John Maroney, Micron
- Chris Lueth, NetApp
- Scott Shadley, NGD Systems
- Martin Peterson, Oracle Corporation
- Rob (Barkz) Barker, Pure Storage
- Bill Martin, Samsung
- Xuemei Qiu, Sichuan Huafeng Enterprise Group Co. Ltd.
- Boyan Ivanov, StorPool Storage
- Ivan Tchoub, YADRO

Quorum is 12 of 23

# SNIA FY2020 Annual Report

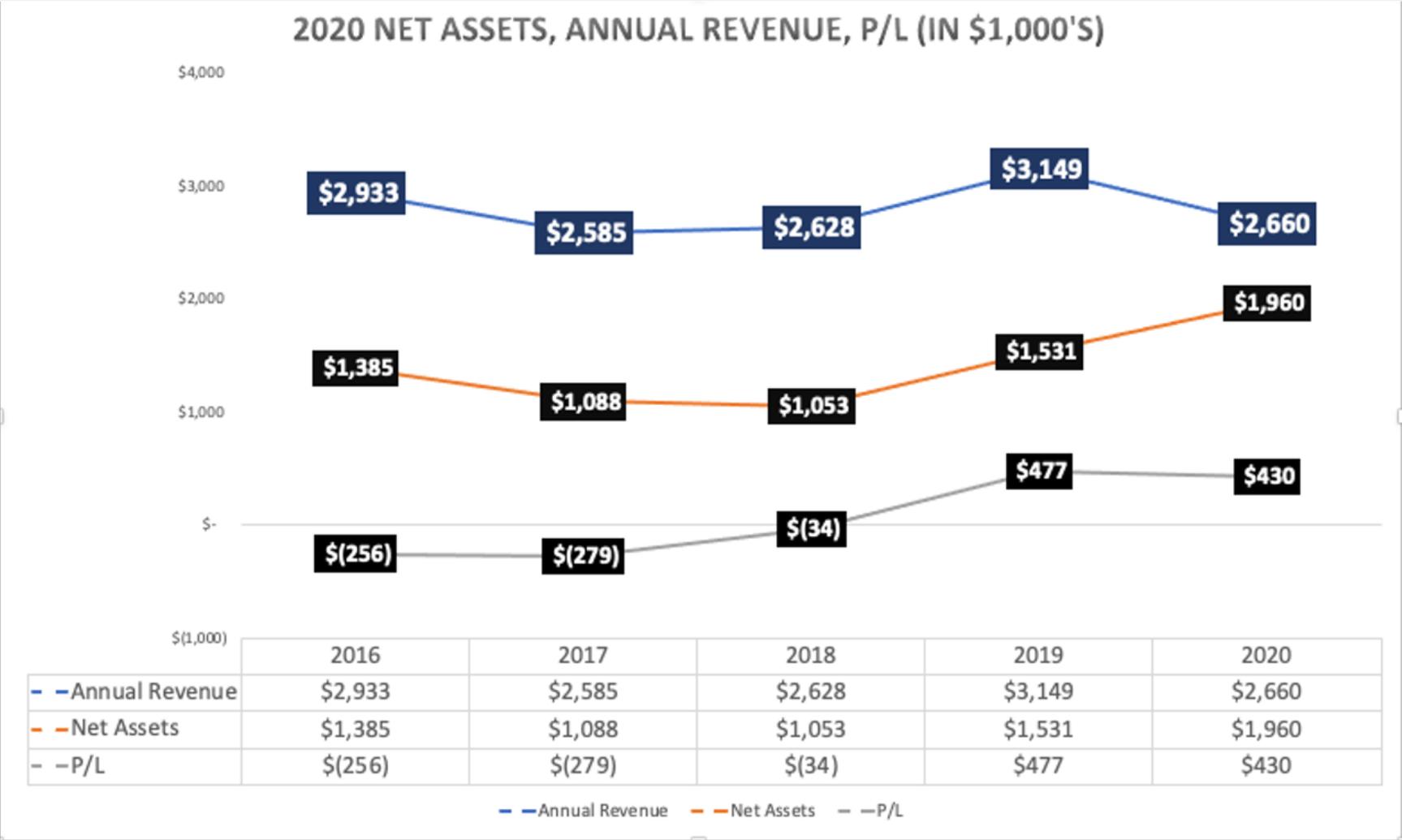


**Motion:** Approve 2020 Meeting Minutes

FY2020 annual report posted on SNIA website:  
( [https://www.snia.org/about/corporate\\_info/documents](https://www.snia.org/about/corporate_info/documents) )

<https://www.snia.org/sites/default/files/corp-docs/AnnualReport20.pdf>

# SNIA Fiscal Report: 2020



Note: P/L numbers include allowances for bad debt, depreciation and vacation accrual. For details, refer to our 2020 annual report at: [http://snia.org/about/corporate\\_info/documents](http://snia.org/about/corporate_info/documents)



FY2021



# SNIA Vision and Mission

## Vision Statement

- Be the globally recognized and trusted authority for storage leadership, standards, and technology expertise.

Be “all things storage.”

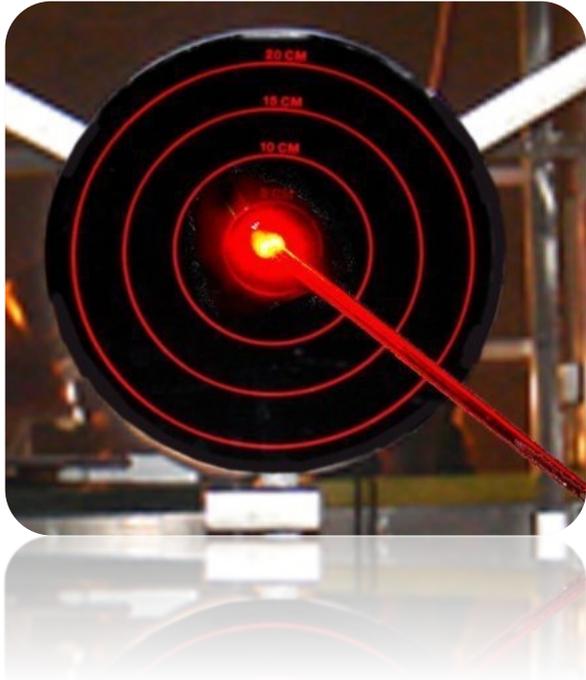
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## Mission Statement

- Lead the storage industry worldwide in developing and promoting vendor-neutral architectures, standards and educational services that facilitate the efficient management, movement and security of information.

Lead the storage ecosystem

# SNIA Focus for 2021



- **Technical Focus and Marketing Initiatives**
  - Updated Specifications, Standards
- **SNIA Internal Efficiency**
  - Root out inefficiencies, provide guidance for consistency and simplify processes
- **Membership**
  - Focus on retention and member satisfaction with SNIA programs
- **Alliances and Partnerships**
  - Engage our existing Strategic Alliances and grow them; establish new ones
  - Enhance partnerships with other SDOs and Open Source community
  - Execute on collaborative work registers and foster new areas of collaboration
  - Strong focus on next-generation technologies and infrastructures
- **Execute online education objectives**
  - Strong webcast agenda; outside-in analyst engagements
  - Build out online education library and organize our content; Dictionary updates
- **Balanced Budget**

# 2021 Achievements – Technical Publications



## SNIA Standards

- TLS Specification for Storage Systems v2.0
- Swordfish Scalable Storage Management API Specification v1.2.2
- Native NVMe-oF™ Drive Specification v1.1
- Swordfish Scalable Storage Management API Specification v1.2.3
  - *Membership vote active, to be published November 2021*

# 2021 Achievements – SNIA ISO Standards



- **ISO/IEC 20919:2021**
  - Information technology — Linear tape file system (LTFS) Format specification
- **ISO/IEC 24775:2021**
  - Information technology — Storage management (Parts 1-8)
- **ISO/IEC 5965:2021**
  - Information technology — Swordfish Scalable Storage Management API Specification
- **ISO/IEC DIS 5733**
  - Information technology — Cloud Data Management Interface (CDMI) Version 2.0
    - ISO ballot opened September 24<sup>th</sup>

# 2021 Achievements – Public Review Drafts

- Smart Data Accelerator Interface (“SDXI”) Specification v0.9.0 rev 1
- Swordfish Scalable Storage Management API Specification v1.2.3
- 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

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

# 2021 Achievements – SFF TA TWG

- **SFF-8024**
  - SFF Module Management Reference Code Tables 4.9
- **SFF-8472**
  - Management Interface for SFP+ 12.4
- **SFF-TA-1006**
  - Enterprise and Datacenter 1U Short Device Form Factor (E1.S) 1.5
- **SFF-TA-1007**
  - Enterprise and Datacenter 1U Long Device Form Factor (E1.L) 1.2
- **SFF-TA-1009**
  - Enterprise and Datacenter Standard Form Factor Pin and Signal Specification (EDSFF) 3.0
- **SFF-TA-1016**
  - Internal Unshielded High Speed Connector System 1.0

# 2021 Achievements – Membership

- **Membership:**

- 86 core members (+15 new members YTD)
- 79 SFF members
- 23 Educational Institution members
- 22 non-core Regional Affiliate Members

- **Voting membership: 24**

- **Startup Membership category continues to grow: now 24 members**

- \$1,000/year non-voting membership
- In business for less than 4 years and annual revenue <\$10M/year
- Can join SNIA for up to 4 consecutive years in the membership class
- Contact membership services to join or with questions: [membership@snia.org](mailto:membership@snia.org)  
<https://www.snia.org/membership-application>



# SNIA Marketing Objective: Raising SNIA's Visibility

## Promoting Standards, Technologies, and Educational Programs

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### ATTENDING OUR HIGHLY-RATED BRIGHTTALK WEBCASTS

- ✓ 24 webcasts produced so far this year, generating over 10,000 total views
- ✓ Average rating of 4.6 out 5



### WATCHING VIDEOS ON OUR SNIAMVIDEO YOUTUBE CHANNEL

- ✓ Contains over 1,000 SNIA videos
- ✓ Generating more than 160,000 views so far this year



### LEARNING VIA SNIA CAMPAIGNS AND PROGRAMS

- ✓ Basic Storage Education and Content
- ✓ "What Is" pages
  - 16 topics generating over 100,000 views this year
- ✓ 3 Campaigns this year: "Geek Out" on Storage Basics
  - NVMe-oF™
  - Computational Storage
  - Great Storage Debates
  - Generating 6,985 unique views

# Education – A SNIA Priority

- Storage Developer Conference (SDC)
  - Annual conference BY Developers FOR Developers
  - SDC'21 – over 120 educational sessions, plus networking Birds-of-a-Feather
- Educational Webcasts
  - Live vendor-neutral webcasts produced by Forums, Initiatives and Committees
  - Covering a wide range of storage and storage-related topics
- Resources
  - SNIA Educational Library <https://www.snia.org/educational-library>
    - A single repository of all SNIA educational content
    - Over 1,000 assets
  - SNIA Dictionary
    - Concise and clear definitions of more than 2,000 technology terms
    - Ongoing major review and revision – input welcome
  - "What Is" pages
    - Expanded descriptions of key technologies
- University Engagement
  - Future plans for closer collaboration with academia
  - Provide storage resources for students and faculty
  - Continued education for those new to the storage industry

STORAGE DEVELOPER CONFERENCE



*BY Developers FOR Developers*

BrightTALK™



SNIAVideo

Advancing Storage & Information Technology



# 2021 Achievements – Events and Regions

Raising SNIA industry leadership profile

## Events

- Members Symposium (Jan. - virtual)
- Persistent Memory and Computational Storage Summit (Apr. - virtual)
- PM Hackathons throughout the year
- IO Lab: SMB3 (June & Sept. - virtual)
- Three Storage Developer Conferences
  - SDC EMEA (Jun: Virtual)
  - SDC India (Aug: Virtual)
  - SDC Global (Sept: Virtual)

## Regions

- ◆ SNIA EMEA - Regional Affiliate
  - ◆ Successful SDC EMEA event; SMB3 Plugfest and education
- ◆ SNIA Japan - Regional Affiliate
  - ◆ Ongoing technical storage seminars, end user surveys and industry engagements executed virtually
- ◆ SNIA India - Regional Affiliate
  - ◆ SDC India event as virtual conference; sustained Meet-up program
- ◆ SNIA South Asia - Regional Community
  - ◆ Minimal activity
- ◆ SNIA Malaysia - Regional Community
  - ◆ Community led by Chin-Fah Heoh, with blogs
- ◆ SNIA Brazil - Regional Community
  - ◆ Virtual activity
- ◆ SNIA China - Regional Community
  - ◆ Organizing to increase local participation and activity

# 2021 Strategic Alliances

Raising SNIA industry leadership profile

- **New Alliances completed in 2021**
  - DMTF / OFA / SNIA three-way alliance
  - International Association of Privacy Professionals (IAPP)
  - Open Fabric Alliance (OFA)
- **New Alliances in the process of being developed**
  - Open Compute Project (OCP)
- **Existing Alliances in the process of being refreshed**
  - DMTF
  - DMTF / NVM Express / SNIA three-way alliance
  - The Green Grid

# Strategic Alliances





FY2022

WARNING – Next Slides

**PAIN POINT**

PARTICIPATION EXPECTED

# Goals From the Chair

- Are you *proud* to be a SNIA member?
  - My goal is to make SNIA an organization that makes members *proud* to be part of it
    - *The standards/trade association identity crisis*
- Three Phase Approach
  - Short Term - Simplicity & Accountability
    - *Ongoing process*
  - Medium Term – Industry Outreach
    - *Moving into current phase*
  - Long Term - Create a “Global Ecosystem” Organization
    - *Spreading SNIA and member relevance across the industry*

# 2021/2 - SNIA Focus Areas

## 2021

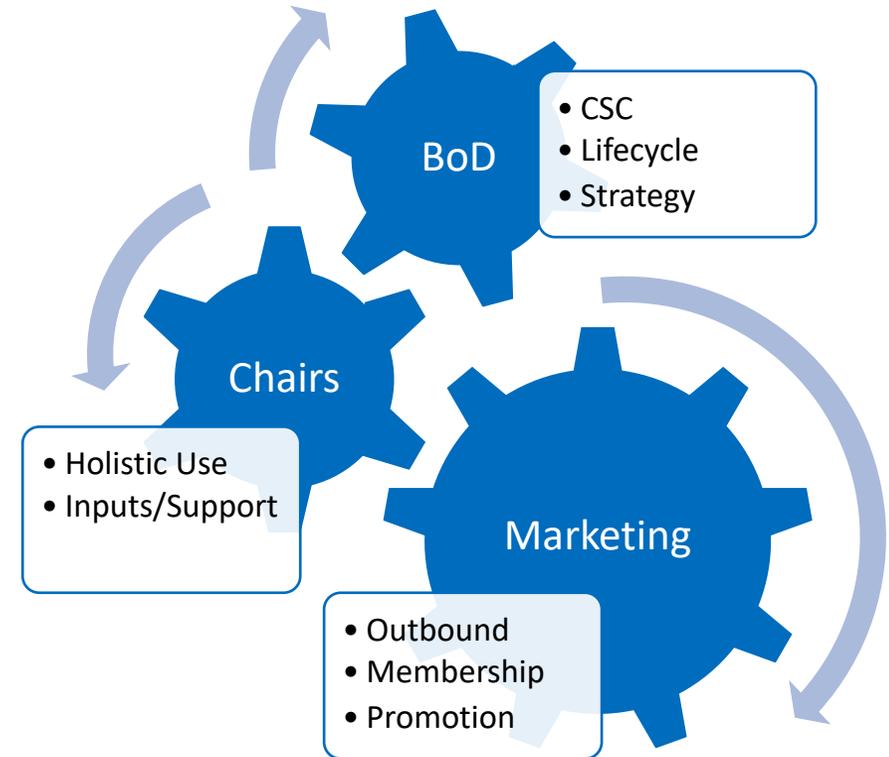
- Internal Refocusing:
  - Theme: ***Simplicity and Accountability***
  - Better communication among groups
  - Internal audit of SNIA groups
  - Ongoing SWOT Analysis
- Process Improvements:
  - Simplified electronic communication
  - Mechanisms for simplifying uniform processes
  - Introduce gating processes that ensure dependencies are met
  - Improve liaison/communication

## 2022

- Actions:
  - Training SNIA groups, more interaction
  - Implementing consistency in documentation procedures
  - Simplified electronic communication
  - Standardized on single information platform
  - Initializing checks and balances
- Audits:
  - SNIA Group SWOT analyses feeding into strategy and tactics

# Driving a Path to Holistic Communication

- Integrating results from SWOTs
  - Aligning CSC, Lifecycle, and Strategy
- More Chair Involvement
  - Regular Chairs Meeting(s) – Feedback request, Interviews
- Evolving Collaboration Efforts
  - Encouraging and supporting cross-functional interactions



# Creating an Effective Communication Plan



## What is needed today:

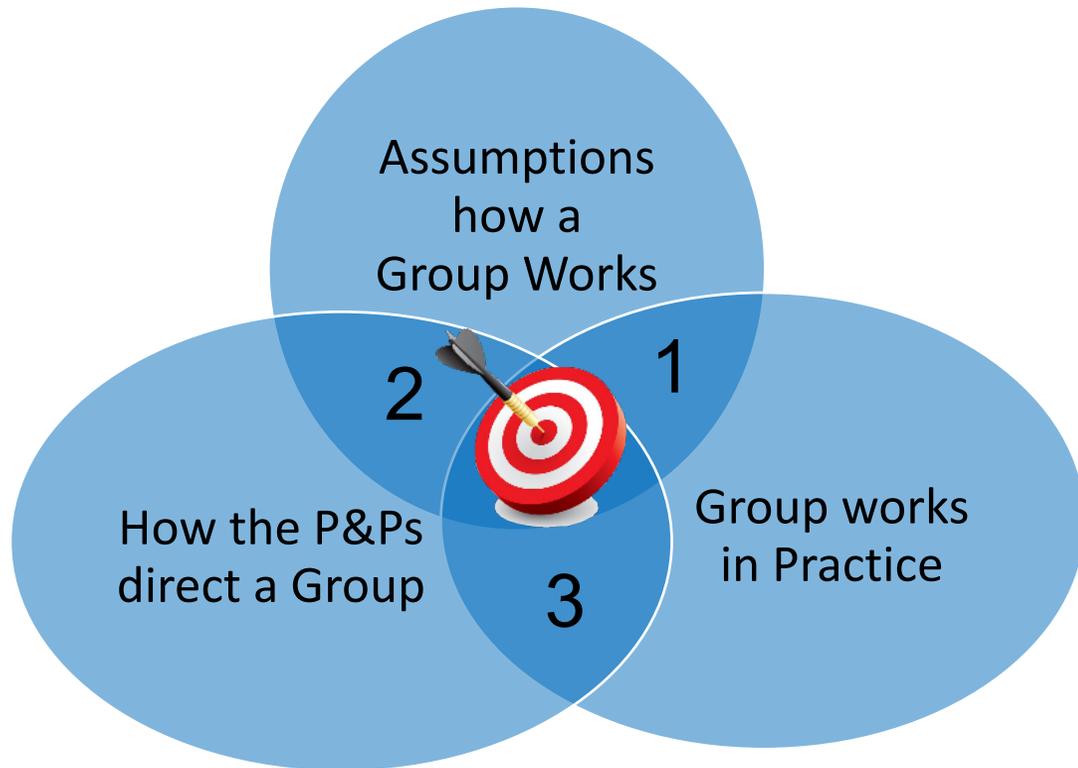
- **Plan Needs to Encompass all Members**
  - Leveraging TWGs, Committees, and Marketing
    - Membership, Strategy, Lifecycle, TC, BoD, etc...
- **Drive through Marketing and Membership**
  - Marketing executes a holistic external plan
  - Chairs drive support through Committees/TWGs

## Next Steps:

1. Get volunteers
2. Initialize Framework
3. Interview/Discuss
4. Develop Framework
5. Build Plan for Review
6. See step #1

Goal: Deliver Draft by 1H22

# Lifecycle Dilemma



- A group owner may have incorrect assumptions of the P&Ps and operation of the group were linked (1)
- We assume that Groups are following the P&Ps. As an outsider to a group, we may lack insight as to the daily operation of a group in action (2)
- Do the P&Ps represent all of the expectations of a group. We may assume actions in a group that are not outlined. (3)
- State Diagrams attempt to bring all of these situations to a center state.
  - A Group creator can see a roadmap to follow to correctly institute a new group
  - A Group owner/member can determine the process and requirements to enter or exit any state (Proposed, Initial, Chartered, Probation, Dissolved, etc).

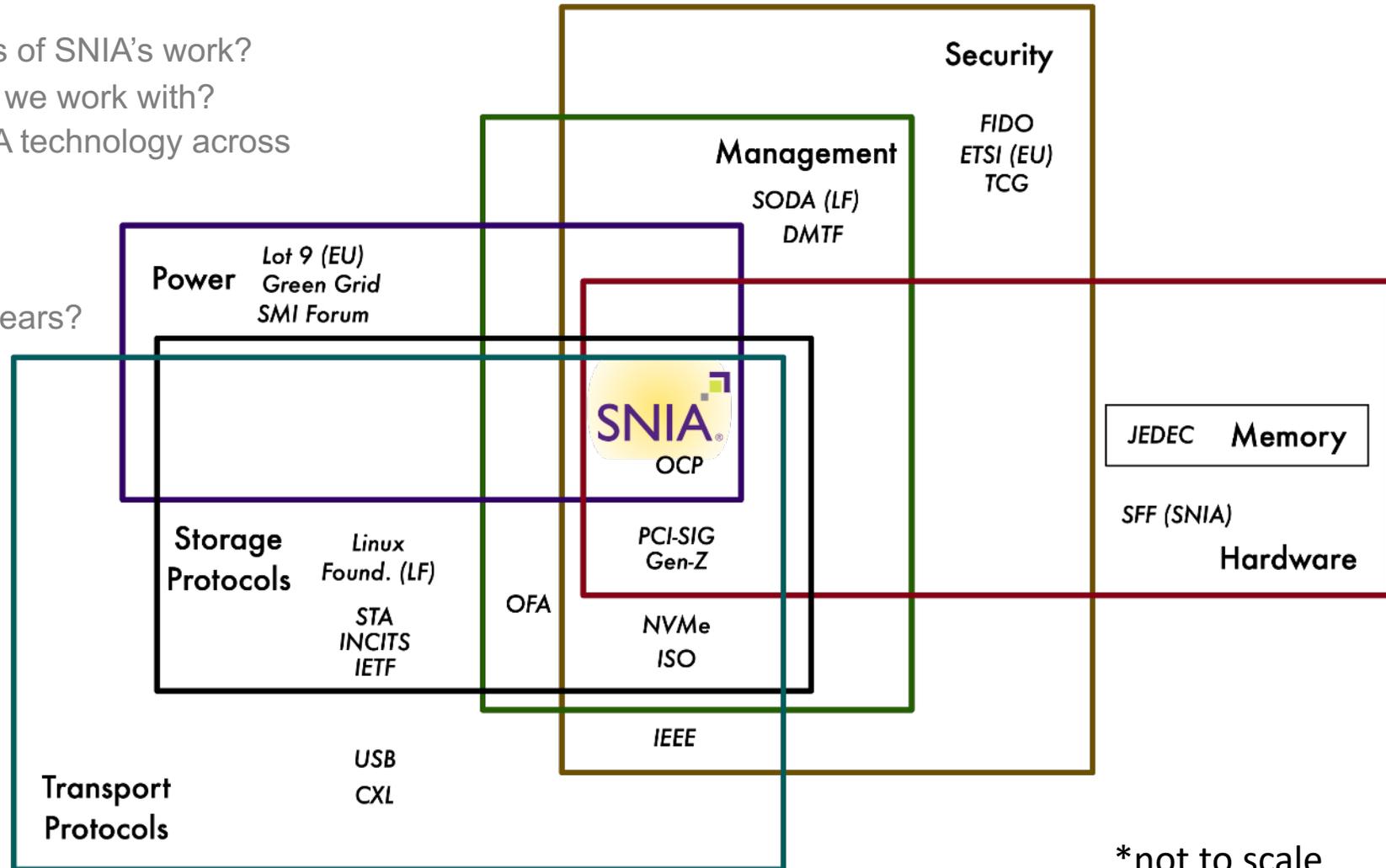
# SNIA Industry, Technical Outreach

- Strategic Questions

- What are the impacts/consequences of SNIA's work?
- Who are our alliances? Who should we work with?
- What are the ways to distribute SNIA technology across disciplines?

- Tactical Questions

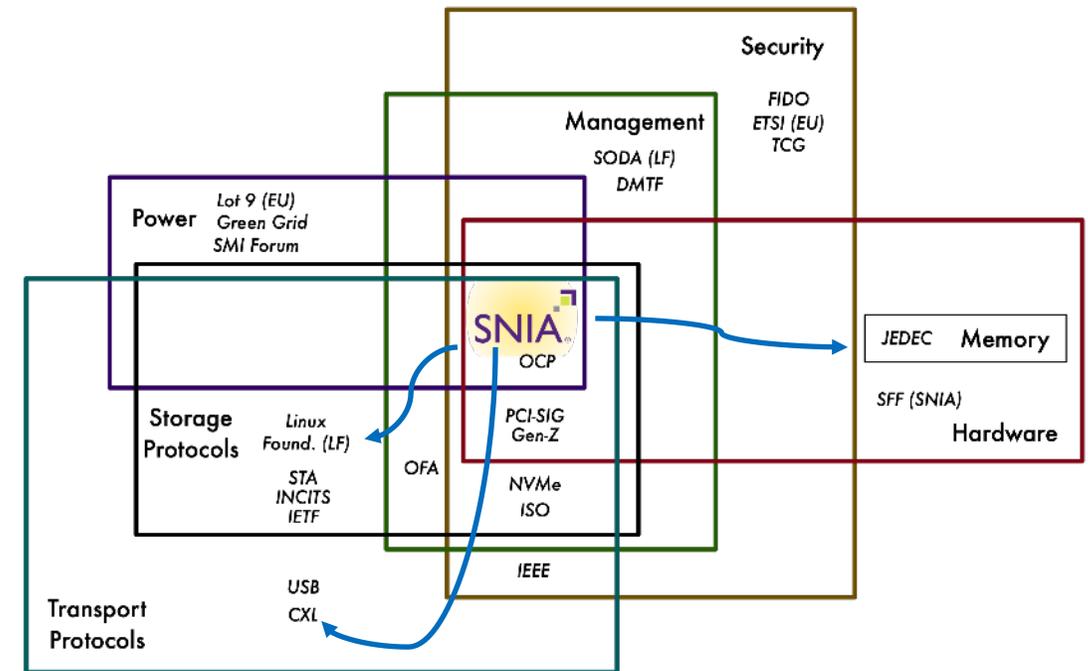
- What are the key projects?
- Which groups will be pivotal in 3-5 years?



\*not to scale

# Example: SDXI

- SNIA has a number of standards, projects, and initiatives that affect the industry: management, computational storage, programming models
- One Current Example: SDXI
  - Vendor-Neutral Memory-to-Memory DMA
- Additional Technical Outreach Targets
  - SNIA -> Computational Storage
  - DPDK
  - Linux Foundation
  - CNCF
  - CXL
  - Others? JEDEC?



# 2022 - Technical Work Focus Areas

- Blockchain Interoperability Specification v1.0
- Computational Storage API v1.0
- Computational Storage Architecture and Programming Model v1.0
- LTFS Tape Image Format Specification v1.0
- LTFS Compliance Test Specification v1.0
- Persistent Memory (PM) Storage Performance Test Specification v1.0
- SNIA Emerald™ Power Efficiency Measurement Specification v4.1
- Swordfish Scalable Storage Management API v1.2.4
- Storage Device-Level Power Efficiency Measurement Specification v1.0
- Smart Data Accelerator Interface (“SDXI”) Specification v1.0

***Join the Technical Work Groups – Participate in their development!***

# SFF TA TWG Standards in Development

- SFF-8613
  - Mini Multilane 4/8X Unshielded Connector (HDun)
- SFF-8614
  - Mini Multilane 4/8X Shielded Cage/Connector (HDsh)
- SFF-8665
  - QSFP+ 28 Gb/s 4X Pluggable Transceiver Solution (QSFP28)
- SFF-TA-1005
  - Universal Backplane Management (UBM)
- SFF-TA-1020
  - Cables and Connector Variants Based on SFF-TA-1002
- SFF-TA-1023
  - Thermal Characterization Specification for EDSFF Devices
- SFF-TA-1024
  - Test Procedure for SFF-TA-1016 Mated Cable Assembly
- SFF-TA-1025
  - QSFP56 Electrical
- SFF-TA-1026
  - Storage System High Speed Cable Interconnect
- SFF-TA-1027
  - Next Gen QSFP Connector, Cage, & Module
- SFF-TA-1028
  - QSFP112 Electrical
- SFF-TA-1029
  - Cabled QSFP Cage & Connector

# Discussion and Q&A

- What are your thoughts?
- Give us your feedback on the org, technical work streams, the industry, and the trends



# Board of Directors and Technical Council

## Elections 2021-2022

# 2021-2022 Elected Board of Directors

- Richelle Ahlvers – Intel \*
- PK Gupta – Dell \*
- Roger Hathorn – IBM \*
- Cody Hosterman – Pure Storage \*\*
- Chris Lionetti – HPE \*\*
- Chris Lueth – NetApp \*
- J Metz – AMD \*\*
- Scott Shadley - NGD Systems \*
- Shalom Shefa – Cisco \*\*
- Paul von Stamwitz – Fujitsu \*\*
- Board Advisors:
  - Michael Oros – SNIA Executive Director
  - 2021-2022 Technical Council Chair(s) (TBD)



\* Directors elected to a new 2-year term. \*\* Directors serving year-2 of elected or appointed term.

Three (3) At-large Seats and Five (5) Advisor Seats on Board of Directors may be appointed by the SNIA Board.

# 2021-2022 Elected Technical Council

- Curtis Ballard – HPE \*\*
- Mark Carlson – KIOXIA \*\*
- Anthony Constantine – Intel Corporation \*
- Fred Knight – NetApp \*\*
- Bill Martin – Samsung \*
- Jason Molgaard – Arm \*
- David Peterson – Broadcom \*
- Leah Schoeb – AMD \*\*
- TC Advisors:
  - Arnold Jones, SNIA, TC Managing Director



\* Members elected to a new 2-Year Term as Voting Members. \*\* Serving Year-2 of Term in elected seat.  
Three (3) Voting Seats and 14 Advisor Seats may additionally be appointed by the SNIA Board.

# SNIA Staff and Contractors

(as of October 1, 2021)

- **Executive Director:** Michael Oros
  
- **Operations and Business Services**
  - Michael Meleedy, Business Operations Director
  - Kelli Martin, Business Services Coordinator
  - *Andee Wilcott, Web Manager (Contractor)*
  
- **Marketing**
  - *Kristin Hauser (Contractor)*
  - *Diane Marsili (Contractor)*
  - *Denise Ridolfo (Contractor)*
  
- **Membership Services and BizDev**
  - Erin Weiner, Membership Services Manager
  
- **Education and Global Programs**
  - *Paul Talbut, Regional Program Director (Contractor)*
  
- **Technology and Technology Center**
  - Arnold Jones, Technical Council Managing Director
  - *Contractor support model for Tech Center and Lab*
  
- **SNIA Emerald**
  - *Dave Thiel, Program Director (Contractor)*
  
- **SMI Management and Program Support (Includes F&I Programs)**
  - Tom Mancuso, Senior Technical Operations Manager
  - *Linda Capcara, SMI Marketing (Contractor)*
  
- **CMSI Management and Program Support**
  - *Marty Foltyn, CMSI Marketing (Contractor)*

Note: SNIA has Contractor Agreements with additional industry and subject matter experts in various functions and Forums and Initiatives (F&Is)

# 2022 – SNIA Events

- [SNIA Annual Members Symposium](#)
  - Week of January 24th, Virtual
- [Persistent Memory Summit](#)
  - Week of May 9th
- Persistent Memory Hackathons | <https://www.snia.org/pmhackathon>
- SDC EMEA | 1H'22, Virtual | <https://www.snia.org/sdcemea>
- SNIA Technical Symposium | April (TBD), Virtual
- SDC India | 1H'22 (TBD) | <https://www.snia.org/sdcindia>
- SNIA Members Symposium/APTS | July 25-29, 2022, Portland, OR
- SDC North America | Sept. 19-22, 2022, Santa Clara, CA | <https://www.storagedeveloper.org>
- SNIA Technical Symposium | October 24-27, 2022



# Acknowledgement

- We could not do the work of SNIA without our dedicated volunteers. You are consistently the greatest asset for the organization and industry!
- Feedback on how we are doing and new initiatives to start/consider is always encouraged
- The support of all SNIA member companies, SNIA staff and contractors is deeply appreciated



# Questions

Your Feedback is encouraged and always appreciated.





# Thank you

We look forward to your active participation in SNIA throughout the upcoming year.



SNIA<sup>®</sup>

Backup



# Newsletters, Education, Social Media

- [SNIA Matters Newsletter](https://www.snia.org/news_events/news/snia_matters) – subscribe: [https://www.snia.org/news\\_events/news/snia\\_matters](https://www.snia.org/news_events/news/snia_matters)
- SNIA Education - <https://www.snia.org/educational-library> (searchable)
- SNIA Dictionary - <https://www.snia.org/dictionary> searchable dictionary
- SNIA on YouTube - <https://www.youtube.com/user/SNIAVideo>  
Hundreds of Technology-focused presentations are available for free
- SNIA Webcasts on BrightTalk – view upcoming and on-demand webcasts at <https://www.brighttalk.com/channel/663/snia-webcasts>
- SNIA Podcasts - <https://www.snia.org/events/storage-developer/podcasts>
- SNIA Mailing Lists - <https://www.snia.org/subscribe>
- SNIA on Storage Blog - <http://sniablog.org>
- SNIA Standards: <https://www.snia.org/standards>
- SNIA on Twitter - <https://twitter.com/SNIA>
- SNIA on LinkedIn - <https://www.linkedin.com/company/snia/>
- SNIA on Facebook - <https://www.facebook.com/SNIA.ORG>

# SNIA Gold Deck

SNIA Introductory and Overview Presentation

<https://www.snia.org/about>

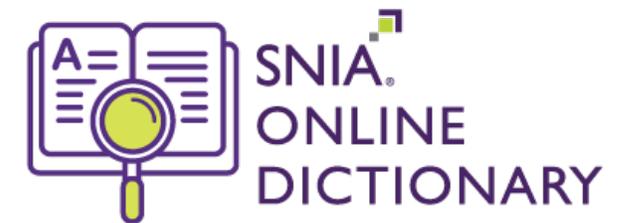
# SNIA Educational Resources



SNIA's library of recent presentations, videos, tutorials, white papers, and more are now accessible through our [Educational Library](#).

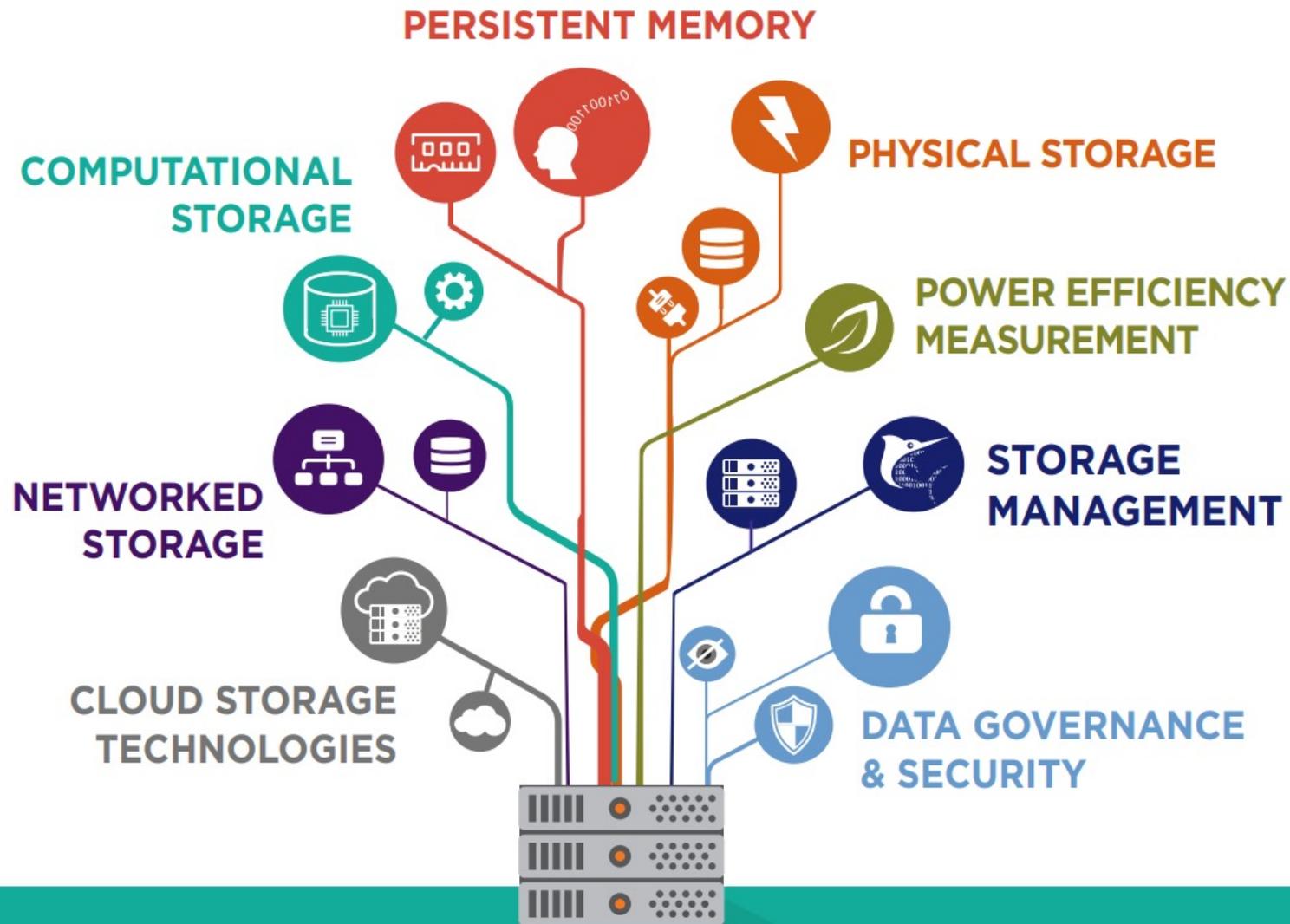


The [SNIA Video YouTube channel](#) features hundreds of videos covering a vast array of storage topics. From Persistent Memory to Cloud, Data Management to Power Efficiency--plus coverage from our global events--our channel offers news, education and insights for all levels of storage professionals.

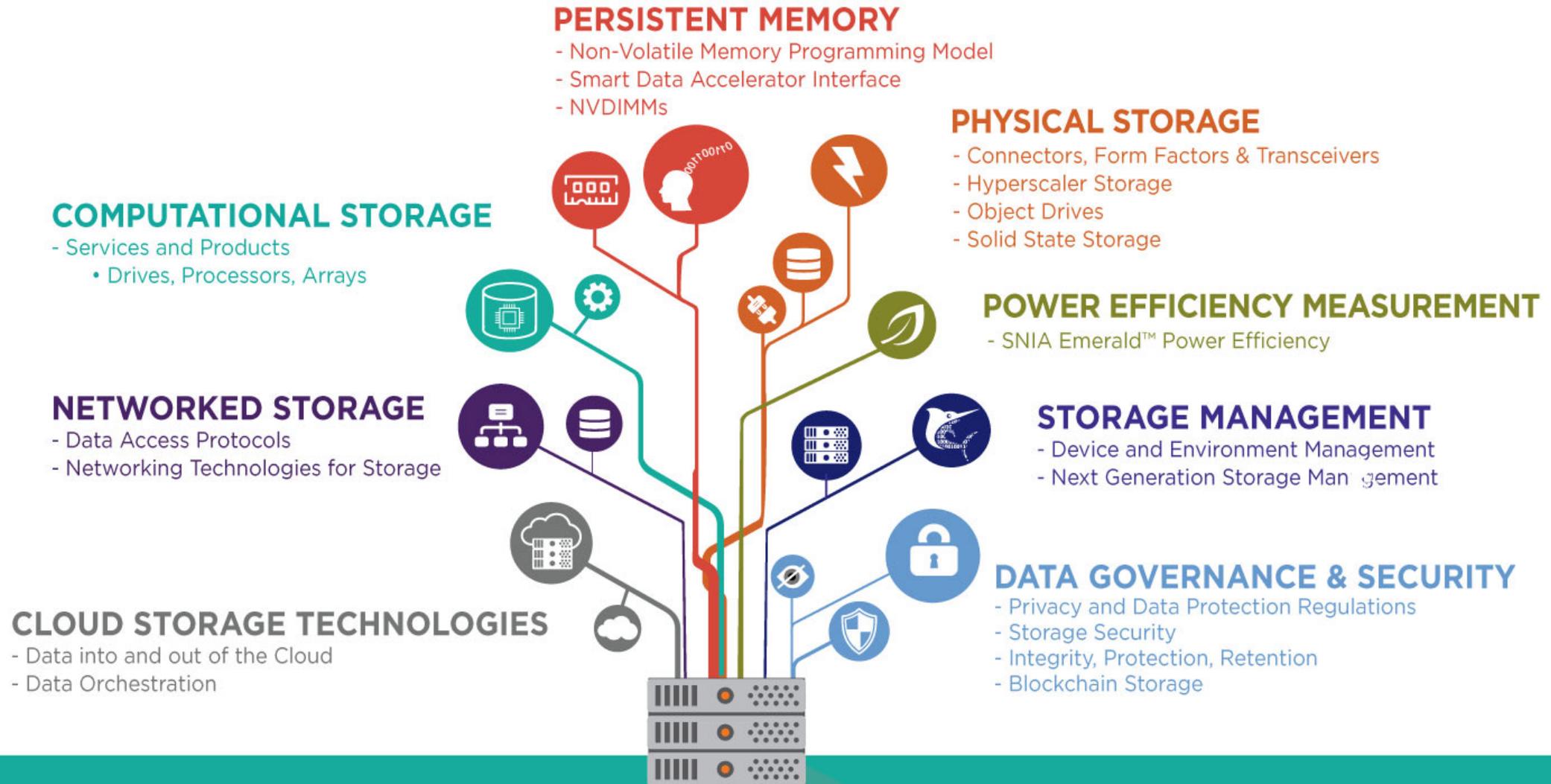


The [SNIA Dictionary](#), which contains terms and definitions related to storage and other information technologies, is the storage networking industry's most comprehensive effort to arrive at a common body of terminology for the technologies it represents.

# SNIA's Current Technology Global Focus Areas



# SNIA's Technical Work Driven by Each Focus Area



# The Real Value to SNIA Membership



## INFLUENCE

- ✓ Influence technologies important to the marketplace
- ✓ Showcase storage expertise
- ✓ Amplify your company's reputation
- ✓ Gain insight into emerging technologies

## COLLABORATE

- ✓ Develop relationships with key industry experts
- ✓ Participate in multi-vendor interoperability activities
- ✓ Engage in open standards development



## LEAD THE INDUSTRY

- ✓ Drive standards development and adoption
- ✓ Align strategic business objectives with industry trends
- ✓ Demonstrate thought leadership through education