



# Data Protection & Privacy Committee

2021 Review and 2022 Plans

Presented by Thomas Rivera and PK Gupta, Co-Chairs ([dppc@snia.org](mailto:dppc@snia.org))

# DPPC

## ■ Charter

- The DPPC exists to further the awareness and adoption of Data Protection technology, and to provide vendor neutral education, best practices and technology guidance on all matters related to the protection and privacy of data. The DPPC is the place where Data Protection and Privacy experts from the data storage industry gather to improve standards, assess changes in legislation, and provide insights into the future challenges of protecting all forms of data.

## ■ Recent completed work - summary

- Industry advisory on data sanitization standard P2883
- What is pages on data privacy and ransomware
- Webcasts, blogs
- Presentations at SDC
- Developing working relationship with IAPP
- Direct feedback into ISO international standards updates and IEEE documents

# DPPC Work Items

- Strategic

- Goal: Monitor and advise on global data privacy legislation changes

- Educational

- Goal: Produce comprehensive reference and guidance materials

- Collaborative

- Goal: Input and influence international standards and formalize alliances with key associations
  - Goal: Utilize the storage expertise within SNIA to enhance the quality of content

- SNIA Cross-Group collaboration with Security TWG

- Continue developing the alliance with IAPP

# DPPC Governing Committee as of January 2022

- PK Gupta, Dell Technologies (Co-Chair)
- Thomas Rivera, VMware (Co-Chair)
- Sangeetha Seshadri, IBM
- Mounir Elmously, Ernst & Young
- Michael Jaslowski, Northern Trust
- Michael Dexter, Gainframe
- Ron Pagani, OpenTech Partners
- David Hill, Mesabi Group
- SW Worth, Board Advisor
- 130+ subscribers to the DPPC mailing list

# DPPC Participation

## ■ What is the expected industry impact of this work

- To use our vendor neutral technology expertise to influence international standards, make sense of legislation, and provide access to best practice and education on Data Protection and Privacy issues.

## ■ What is the industry segment relevance

- ISO27040 Storage Security Standard revision (in progress) contains 'shall' statements for the first time. This means it will be used as a conformance standard to hold storage vendors to account.
- New standard on data sanitization has impact on the way storage technology is disposed of
- 44% of CEO respondents rank Data Privacy among the top 3 policies most impactful to their business (PWC)

## ■ Why you should join and participate in the DPPC

- The DPPC aims to drive the storage narrative in highly prevalent issues of:
  - Data Privacy legislation
  - Cyber Security as it relates to storage
  - Ransomware and data protection strategies

## ■ Who to contact for additional information

- DPPC Co-Chairs PK Gupta and Thomas Rivera - [dppc-gc@snia.org](mailto:dppc-gc@snia.org)
- SNIA DPPC Facilitator - [paul.talbut@snia.org](mailto:paul.talbut@snia.org)





# Networking Storage Forum (NSF)

2021 Review and 2022 Plans

Presented by John Kim, NSF Chair ([nsfchair@snia.org](mailto:nsfchair@snia.org))

# NSF: What We Do

The SNIA Networking Storage Forum (NSF) drives the broad adoption and awareness of storage networking solutions. Our expert community covers block (FC, iSCSI, NVMe-oF™), file (SMB, NFS), and object storage, as well as diverse related topics such as virtualized and hyperconverged solutions, storage security, and more.

We accomplish our mission by delivering webcasts, publishing white papers and articles in trade journals, actively blogging, and leveraging social media to promote networked storage and related technologies.

# NSF 2021 Accomplishments

- Working as a team to promote networked storage
- Produced 10 vendor-neutral, educational webcasts
  - Average 800 views per webcast
- Topics we covered:
  - The Great Storage Debate - Hyperconverged vs. Disaggregated vs. Centralized
  - NVMe-oF: Looking Beyond Performance Hero Numbers
  - SAN Overview: How Fibre Channel Hosts & Targets Really Communicate
  - Next-gen Connector & Cables
  - Object Storage
- 23 Blogs posted
  - Over 16,000 views





# NSF Work Items for 2022

## Exploring all technologies related to Networked Storage

- Storage for Automotive
- Storage Life on the Edge Webcast Series
  - Examining the impact and use cases of Storage for Edge Computing
  - 1st in series: Tomorrow, January 26<sup>th</sup> 10:00 am PT
  - Register here: <https://bit.ly/3GR3MFC>
- xPU/DPU/IPU Series
  - Intro to accelerators
  - Network challenges
  - Computational storage
- NVMe over Fabrics
- Storage Security



# NSF Work Items for 2022

- SNIA Cross-Group collaboration
  - Security Technical Work Group
    - Presentation
    - White paper promotion
  - Compute, Memory, and Storage Initiative
    - Joint Computational Storage webcasts
  - Open to working with all groups within SNIA
- External group collaboration /Alliances
  - NVM Express® (NVMe over Fabrics)
  - OpenFabrics Alliance
  - IETF
  - FCIA

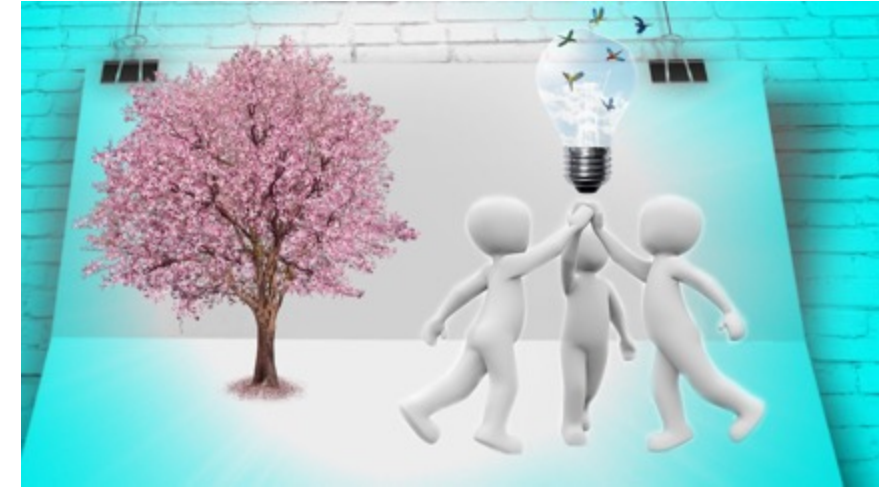


# NSF Members as of 1-1-22



# NSF Participation

- Share your ideas
- Educate vendors and customers
  - Promote the SNIA brand as a place to get quality education on technology
- Showcase your industry segment relevance
  - Relevant to vendors of systems, HDDs, SSDs, and networking
  - Relevant to all verticals/industries
- Why you should join and participate in this Forum
  - Learn, monitor, contribute, and build your company and personal brands
  - We have fun!
- Contact us to get involved!
  - John Kim, NSF Chair ([nsfchair@snia.org](mailto:nsfchair@snia.org))
  - Christine McMonigal, NSF Vice Chair







# Cloud Storage Technologies Initiative (CSTI)

2021 Review and 2022 Plans

Presented by Alex McDonald, CSTI Chair, [cstichair@snia.org](mailto:cstichair@snia.org)



# CSTI What We Do

The SNIA Cloud Storage Technologies Initiative (CSTI) is committed to the adoption, growth and standardization of storage in cloud infrastructures. This encompasses data services, orchestration and management, as well as the promotion of portability of data in multi-cloud environments.

Learn more at <https://www.snia.org/technology-focus/cloud-storage-technologies>

# CSTI 2021 Accomplishments

## Executing on Our Mission to Educate

- Webcasts and Blogs – Primary vehicles to raise awareness
- 12 CSTI webcasts produced in FY'21
  - Over 5,000 total views
  - Average rating 4.5 (scale 1-5)
- Wide Range of Cloud-related Topics:
  - Moving Genomics Data to the Cloud
  - Big Data in the Cloud
  - Confidential Computing
  - Cloud Data Management
- 23 CSTI Blogs – Very Popular Q&A Blogs
  - Edge Computing
  - Impact of AI on Storage
- CSTI Infographic

<https://www.snia.org/infographic/how-snia-supports-cloud-storage-technologies>



# CSTI Work Items for 2022

- Beyond cloud storage - covering technologies immediately peripheral and integral to cloud
- Topics we propose:
  - Cloud Basics – Terminology/Definitions
  - Edge Storage
  - Cloud Security & Data Governance
  - Confidential Computing
  - Performance at Scale
  - AI/ML
  - Impact of 5G
- Focus on real-world use cases



# New Series: 15 Minutes in the Cloud

- A 15 minute terminology definition and overview conversation on key cloud topics
- Launch on March 2, 2022
- What is Cloud?
- Future Sessions:
  - Cloud Application Architecture
  - Cloud Data Privacy & Security
  - Cloud Provider Storage Offerings



# CSTI Membership as of 1-1-22





# CSTI Participation

- CSTI: Small, very active group, multiple opportunities for participation
- Delivering on education and awareness of cloud trends, technologies, challenges, and use cases
- Increased audience satisfaction
  - Highly-rated, well-attended webcasts
- Officers:
  - Chair: Alex McDonald, Independent Consultant ([cstichair@snia.org](mailto:cstichair@snia.org)) for additional information
  - Co-chair: Michael Hoard, Intel



Every company in SNIA has something to do  
with Cloud

Bring your important topics to our team  
Join Us!





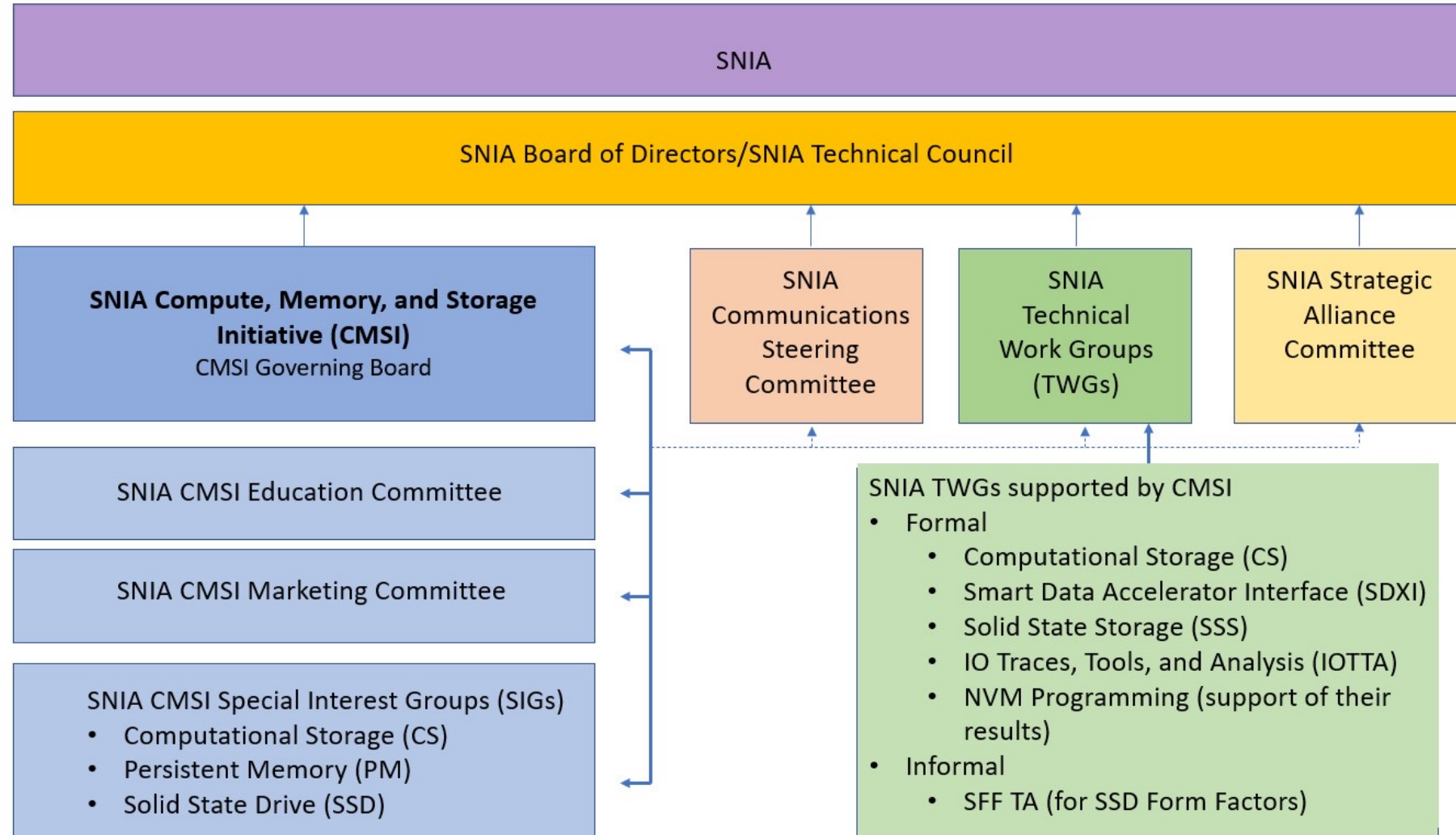
# Compute, Memory, and Storage Initiative (CMSI)

2021 Review and 2022 Plans

Presented by Bill Martin, Chair, CMSI

[cmsi-chair@snia.org](mailto:cmsi-chair@snia.org)

# SNIA and the Compute, Memory, and Storage Initiative





# SNIA CMSI 2021 Mission and Accomplishments

**CMSI Mission:** The SNIA CMSI is dedicated to fostering the growth and success of the market for solid state storage, computational storage, persistent memory, and other advanced storage technologies in both commercial and consumer environments.

**CMSI-wide Accomplishments:** \* Successful completion of 9<sup>th</sup> annual Persistent Memory + Computational Storage Summit

\* Continued outreach and education on SNIA Technical Work Group Standards and Specifications

\* Support of SNIA Strategic Alliances (CXL Consortium, OpenFabrics Alliance)

\* Sponsorship of 3 SNIA SDC Events and 7 Industry Events (OpenFabrics Alliance Workshop; OCP Workshop; SODAcon; Interop Digital; Intel InnovatiON; OCP Global Summit; SC21)

## Computational Storage SIG

- Education and outreach on two new [CS TWG specifications](#)
- Continued research and documentation of [computational storage use cases](#)
  - Added 4 presentations at PM+CS Summit that spoke to use cases
  - Added 4 presentations at SDC2021 that spoke to use cases
  - Added 3 use case demonstrations at OCP Global Summit
  - Added 1 new webcast on use cases related to updated specifications
  - Updated use case page on [snia.org](#)
- Three webcasts and four educational videos on Computational Storage basics
- CS presentations at Interop Digital
- Successful computational storage presentations at the [PM+CS Summit](#)

## Persistent Memory SIG

- Education and outreach on the [NVM Programming Model](#) completed by the NVM Programming TWG
- Continued education on Persistent Memory programming with the [PM Workshop/Hackathon program](#)
  - Outreach and training at three SNIA events and three industry events
  - Over 400 “student” attendees
- One webcast and one educational video on Persistent Memory basics
- Successful persistent memory presentations at the [PM+CS Summit](#)
- Kickoff meeting with SDXI TWG Chair to understand specification and their goals and plans for 2022

## Solid State Drive SIG

- Education and outreach on [Solid State Storage specifications](#) and [EDSFF](#)
- Publication of the NVMe SSD Classification white paper and outreach on the [NVMe SSD Classification](#) webpage material
- Update of [Storage Total Cost of Ownership](#) materials and outreach
- Continued support, enhancement of, and outreach on the [SSD Form Factor webpage materials](#)
- Briefings to eight industry analysts on SSD SIG, EDSFF, NVMe SSD, and TCO activities of the CMSI.



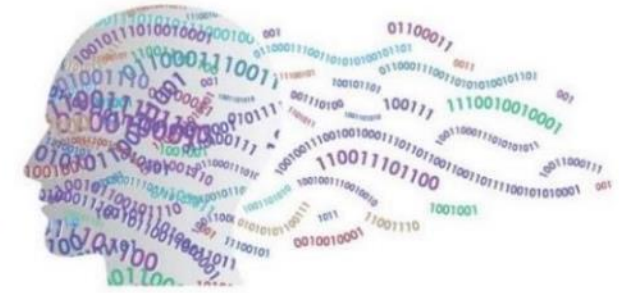
# SNIA CMSI 2022 Work Items (slide 1 of 2)

- Initiative- wide
  - Outreach and participation in six planned industry events (OFA Virtual Workshop, PIRL, Flash Memory Summit, OCP Global Summit, Intel InnovatiON, SC22)
  - Support of SNIA SDC events (India, EMEA, US)
  - Persistent Memory/Computational Storage Summit (May 9, 2022)
  - One blog/month on the [sniacmsiblog.org](https://sniacmsiblog.org) to include webcast Q&As and education on technology topics from Initiative member thought leaders
- Computational Storage SIG
  - Continued support of SNIA computational storage activities at company and industry events
  - End user evangelization of computational storage use
  - Continued research and documentation of computational storage use cases
  - Three webcasts and four educational videos
- Persistent Memory SIG
  - Continued research and documentation of PM use cases
  - Expanded PM programming videos and Hackathon events
  - Evangelization and outreach on SNIA SDXI TWG specifications
- Solid State Drive SIG
  - Support of and education on new memory types
  - Expansion of support on EDSFF deployments and use cases
  - More work on Total Cost of Ownership for SSDs
  - Develop Ethernet drive work webpages
  - Support of SNIA TWG work – SFF TA TWG and Solid State Storage TWG

# SNIA CMSI 2022 Work Items (slide 2 of 2)

- **TWGs supported**
  - Computational Storage TWG (Specification promotion/outreach, user input)
  - SDXI TWG (Specification promotion/outreach, user input)
  - Solid State Storage TWG (Specification promotion/outreach, user input)
- **External Group Alliance/Collaboration Activities**
  - CXL Consortium - Marketing/outreach work on alliance
  - NVM Express – support of/outreach on joint marketing and technical alliance activities
  - OpenFabrics Alliance – support of/outreach on joint marketing and technical alliance activities
  - SCSI Trade Association (STA) - support of/outreach on joint marketing and technical alliance activities
  - JEDEC –NVDIMM-P specification support; automotive SSD standard support

# Save the Date – May 10-11, 2022



- PM+CS Summit returns as a virtual event
- Two half-days of live keynotes and panel sessions
- Pre-recorded breakout sessions released concurrently with the event
- Virtual demonstration opportunities
- Topics to include
  - Future of PM, DRAM and Form Factors
  - PM, CS, and PM+CS use cases
  - Market and analyst updates
  - The latest on the SNIA Computational Storage Architecture and Programming Model and the Computational Storage API
  - CXL Consortium and NVM Express alliance activities
- Look for the call for presentations and sponsorship information – coming very soon!

# SNIA Compute, Memory and Storage Initiative Membership\*

CMSI Strategic Membership, Voting - \$5,000/year; CMSI Membership, Non-Voting - \$3,000/year; CMSI Startup Company Membership - \$1,000/year



\* 36 company members and 8 individual members as of January 2022

+ New members in FY2021; ++ New members in FY2022

# Who to Contact at CMSI

- [CMSI Chair](#)
  - Bill Martin (Samsung)
- [CMSI Vice Chair](#)
  - Leah Schoeb (AMD)
- [CMSI Treasurer](#)
  - Willie Nelson (Intel)
- [CMSI Education Committee Chair](#)
  - Tom Coughlin (Coughlin Associates/Individual Member)
- [CMSI Marketing Committee Co-Chairs](#)
  - Tim Lustig (NVIDIA); David McIntyre (Samsung)
- [CMSI Computational Storage SIG Chair](#)
  - David McIntyre (Samsung)
- [CMSI Persistent Memory SIG Co-Chairs](#)
  - Arthur Sainio (SMART Modular); Raghu Kulkarni (Intel)
- [CMSI Solid State Storage Drive SIG Chair](#)
  - Cameron Brett (KIOXIA)



# Participate in SNIA CMSI in 2022

- Expected industry impact of CMSI work
  - Significant education deliverables contributing to expanded knowledge of computational storage and smart data acceleration interface technology
  - The place to go for information on SSD form factors, NVMe classification, and Total Cost of Ownership (TCO) information
  - Expanded reach to end users
  - Implementation knowledge of the NVM Programming Model benefits and application to persistent memory applications
- Industry segment relevance of CMSI work
  - Computational Storage industry
  - Memory industry
  - Storage industry
- Why you should join and participate in the CMSI
  - Engage and educate the industry on compute, memory, and storage technologies
  - Accelerate standards
  - Propel technology adoption
- Who to contact for additional information
  - Reach out to our leadership – Bill Martin – [cmsi-chair@snia.org](mailto:cmsi-chair@snia.org)
  - Website – [www.snia.org/cmsi](http://www.snia.org/cmsi)
  - CMSI fact sheet - [https://www.snia.org/sites/default/files/SSSI/CMSI\\_2022\\_fact\\_sheet.pdf](https://www.snia.org/sites/default/files/SSSI/CMSI_2022_fact_sheet.pdf)

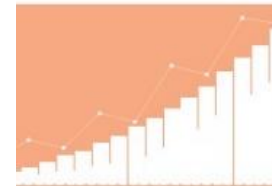


The leading companies of the SNIA Compute, Memory, and Storage Initiative (CMSI) support the industry drive to combine processing with memory and storage, and to create new compute architectures and software to analyze and exploit the explosion of data creation over the next decade.



## CMSI Engages and Educates

- ✓ Computational Storage
- ✓ Persistent Memory
- ✓ PM and SSD Performance
- ✓ Solid State Drives
- ✓ Solid State Systems
- ✓ SSD Form Factors



## CMSI Accelerates Standards

- ✓ Computational Storage Architecture Model
- ✓ Persistent Memory Programming Model
- ✓ PM Hardware Threat Model
- ✓ Solid State Storage Performance Test Specifications
- ✓ SSD Form Factor Specifications



## CMSI Propels Technology Adoption

- ✓ Persistent Memory Programming Bootcamps
- ✓ PM Remote Access for High Availability White Paper
- ✓ SSD Form Factors Explained
- ✓ Compute, Memory, and Storage Demos at live and online technology events
- ✓ Interactive Webcasts with Industry Experts
- ✓ Technology Videos on the SNIA Video YouTube Channel

Learn more: [snia.org/cmsi](http://snia.org/cmsi)

@SNIA



# Green Storage Initiative (GSI)

2021 Review and 2022 Plans

Presented by Wayne M. Adams and Chris Lueth  
GSI Co-Chairs

[waynemadams@gmail.com](mailto:waynemadams@gmail.com)

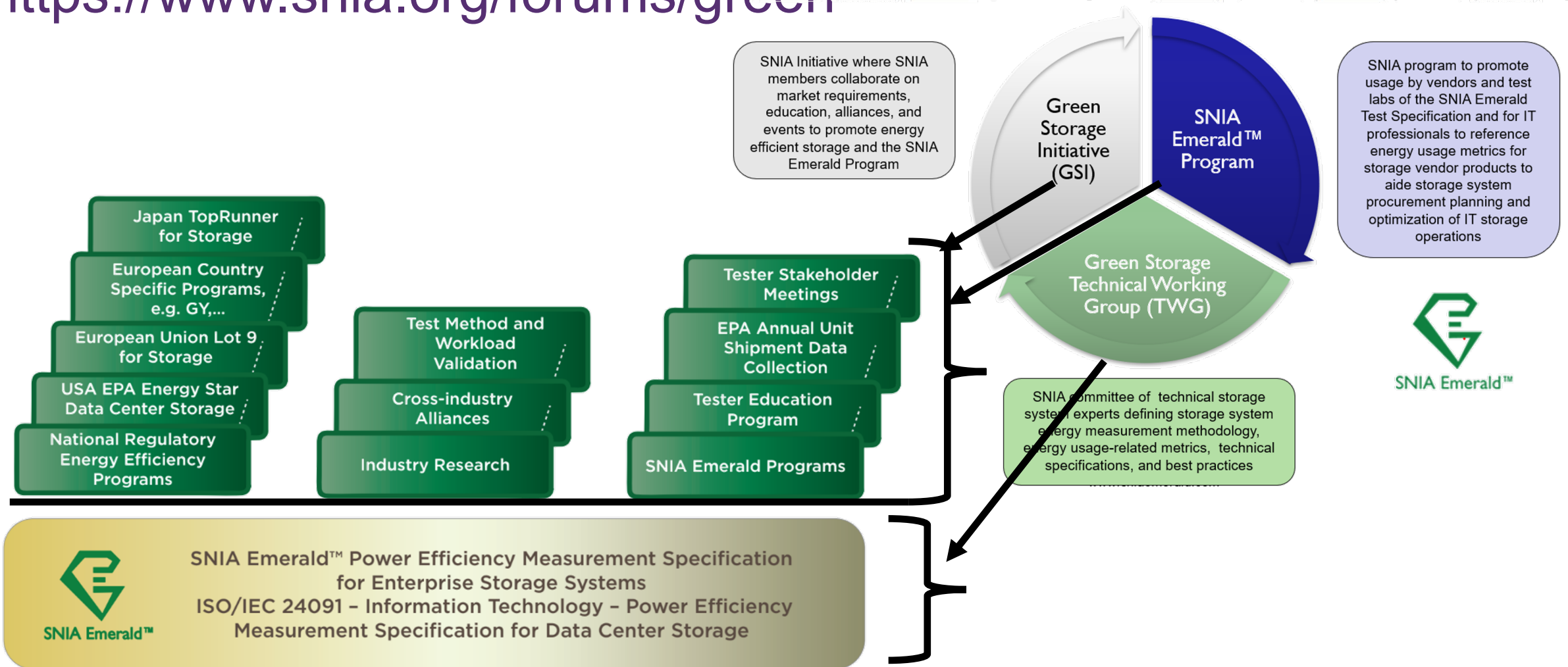
[Chris.Lueth@netapp.com](mailto:Chris.Lueth@netapp.com)

[www.sniaemerald.com](http://www.sniaemerald.com)

<https://www.snia.org/technology-focus/power-efficiency>

# Green Storage Initiative (GSI) Mission

<https://www.snia.org/forums/green>





# GSI Work Items (slide 1 of 2)

## 2021 Accomplishments

- Ongoing Support Emerald 4.0 Industry Spec and Tester Kit
- Thresholds for EPA DCS 2.0
- Renew TGG/SNIA Alliance Agreement
- HDD Data Analysis
- EPA Unit Shipment Report
- Input to Japan TopRunner Program

## 2022 Plans

- DCS 2.0 Data Analysis
- SNIA Emerald 5.0 and test tool selection
- TGG Alliance / EU regulations
- TGG/SNIA storage whitepaper published and translated
- White paper for Storage Device (instead of system test and measurement)
  - Tbd Specification Creation
- EPA Unit Shipment Report

# USA EPA DCS 2.0 Test Reports – 48 Systems, 7 Vendors

## Storage Controller Configuration

- ☐ Scale-Out Storage (10)
- ☐ Scale-Up Storage (38)

## Workload Optimization Type

- ☐ Composite (10)
- ☐ Streaming (15)
- ☐ Transaction (23)

## Storage Model Connectivity

- ☐ Block I/O (37)
- ☐ File I/O (11)

## Capacity Optimized Method Available (COMs)

- ☐ Thin Provisioning (40)
- ☐ Data Deduplication (24)
- ☐ Compression (26)
- ☐ Delta Snapshots (20)

Product Type: NVSS Disk Set Online 4

Storage Controller Configuration: Scale-Out Storage

Workload Optimization Type: Composite

D

- ☐ DELL (10)
- ☐ DELL EMC (5)
- ☐ Dell EMC Unity XT380 (1)
- ☐ Dell EMC Unity XT380F (1)
- ☐ Dell EMC Unity XT480 (1)
- ☐ Dell EMC Unity XT480F (1)

I

- ☐ IBM (4)

S

- ☐ Seagate (5)

L

- ☐ Lenovo (2)

V

- ☐ Veritas Technologies LLC (1)
- ☐ Viking Enterprise Solutions (1)

H

- ☐ Hewlett Packard Enterprise (3)
- ☐ HPE (4)
- ☐ HPE Primera (3)

N

- ☐ NetApp (3)
- ☐ NetApp, Inc. (3)

**Dell Inc. : DELL - Powerscale F900**

☐ Compare

Product Type: NVSS Disk Set Online 4



Green Storage TWG ROADMAP- 2022		CY2022												CY 2023				CY2024			
Approximate and subject to change Update 1-12-22		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Q1	Q2	Q3	Q4				
#	Events																				
1	SNIA-GTWG F2F Invite EPA to concall	▽ SNIA Member vSymposium (no vF2F)	▽	vF2F (post SDLPEM survey)	▽	vF2F		▽	vF2F		▽	vF2F		▽	SNIA Member vSymposium Jan '23						
2	EPA-SNIA Industry Meetings		▽	EPA call-in to SNIA (SW cadence)		...as needed...								▽	DCS Stakeholder Meeting						
3	EPA DCStorage ENERGY STAR V2.1	▽	Becomes effective, replacing V2.0																		
4	ENERGY STAR Data Analysis (on file submittals)	Note: currently 11 file submittals									▽	V2.0/2.1 data analysis									
5	Energy Efficient Data Center Storage White Paper				▽	Publish new/ updated white paper w/ TGG															
6	ISO version of Emerald 4.0			▽	Submit to ISO										▽	Publish ISO standard based on Emerald 4.0					
7	Emerald Measurement Spec v4.0+ (5.0?)					▽	Define scope											▽	Spec V4.0+ (5.0) (internal draft)		
8	Storage Device Level Power Efficiency Measurement (SDLPEM) On going data collection		▽	Direction		▽	White Paper														
9	Software Tool Cadence for Emerald VdBench, SPEC 2014 are retired & need replacements	▽	Initial Investigatio		▽	Criteria List	▽	Tool Selection	▽	Start Data Collection											
10	Futures																				
	Memory attached persistent storage		Investigate and make recommendations											Consider for V4.0+(5.0)							
	Test methodologies for capacity optimization, data protection, etc. (impact on performance, energy consumption)																				
	Energy measurement for large / new distributed systems; consider small scale measurement as system indicator																				
	Collaborate w/ other Servers, Switch		SW-defined, Hyperconverged configs																		
	Cloud data centers		Data caching, remote VS local, hybrid, etc. How to actually measure the energy efficiency?																		
	Object storage		Is market large enough?								Is growing, e.g. S3. Plug-ins available SPEC Storage 2020										
ESTAR, ITI/ TGG (incl 80PLUS, Digital EU), EU Lot 9, ASHRAE, SPEC-Storage/Power, SNIA-Jpn TopRunner, ISO, Oracle,																					
11	Partner Collaboration/Tracking																				

# GSI Work Items (slide 2 of 2)

## GSI Alliances and Cross Industry Work

### Technology and Testing

- SPEC (SFS), Oracle (Vdbench (SPC community)), SPEC (power meters), S-FLOW, 80 Plus Ecova/EPRI (power supply testing)

### Policy

- The Green Grid (+Digital Europe) (EU, EU country level pgms)
- SNIA-J (Japan)

### Industry Regulatory

- EPA Energy Star (USA)
- TopRunner (Japan) (via SNIA-J)
- EU Lot 9 ( via TGG → Digital Europe), Blue Angel, others

### International Standards

- SC39 / ITS 39

## GSI/GreenTWG Cross-SNIA Group Collaboration

### ■ SMI/SSM TWG

- Storage Management profiles for power, capacity, I/O
- Profiles requests to support DCIM

### ■ S3 TWG/CMSI

- Solid state storage taxonomy
- S3 Test Methods/data collection

# GSI Membership as of 1/1/2021

## Green Storage Initiative • Member Companies



## Membership Dues 2021

Voting dues = \$12K

Non-voting dues = \$6K

## ■ GSI Leadership:

- Co-Chair, Wayne M. Adams, Independent Consultant
- Co-Chair, Chris Lueth, NetApp
- SNIA Emerald Program Manager , Dave Thiel , Contractor
- SNIA Emerald Data Analysis, Patrick Stanko, Contractor

# GSI Participation

- What is the expected industry impact of this work
  - One architecturally unbiased test methodology to serve regulatory bodies worldwide
  - Proactively provide a single test methodology worldwide
  - Industry knowledge of storage system power consumption and best practices/configurations to optimize power usage w/o compromising system functionality
- What is the industry segment relevance.
  - Storage System Manufacturers; Storage Device Manufacturers; DCIM SW Vendors
- Why you should join and participate in GSI
  - Membership fees underwrite critical contractor services for program mgt, data analysis, test validation, and industry training; industry awareness of your company's leadership
  - Refresh and renew focus on best practices (whitepapers, planning tools)
  - Avoid being surprised when a new regulation goes live and affects your product portfolio/revenues
- Who to contact for additional information
  - GSI Co-Chair, Wayne M. Adams, [waynemadams@gmail.com](mailto:waynemadams@gmail.com)
  - GSI Co-Chair, Chris Lueth, [Chris.Lueth@netapp.com](mailto:Chris.Lueth@netapp.com)
  - GSI SNIA Emerald Program Manager, David Thiel, [emerald@snia.org](mailto:emerald@snia.org)



# Storage Management Initiative

2021 Review and 2022 Plans

Richelle Ahlvers, Intel, SMI Governing Board Chair



# SMI 2021 Accomplishments



- Charter: <https://members.snia.org/wg/sminit/document/32778>
- Mission:
  - The SNIA Storage Management Initiative (SMI) is dedicated to fostering the creation of implementable, deployable and verifiable end user storage management solutions based on industry and SNIA standards that can be adopted industry wide.
- In 2021: SMI was very busy!
  - Swordfish: Added support for NVMe / NVMe-oF to Redfish and Swordfish, and focusing on enabling execution
  - Partnered with NVMe, DMTF, and OFA to promote Redfish, Swordfish for NVMe, Storage Fabric Management
  - Sponsored Open Standards Pavilion at SC'21: SMI / CMSI for SNIA, EA, OFA, CXL, GenZ, FCIA participating, eager to repeat again, with joint technical demos
  - Technical programs rolled out: Swordfish CTP, #NEXTGEN Lab – SM Lab, Redfish Interoperability lab, future CMSI hackathon lab moved to SMI interoperability lab environment (SMIILE)

# SMI: 2022 Priorities



- Support the SSM TWG, and other TWG manageability activities that develop
- Accelerating Swordfish development and adoption, through interoperability, conformance, education and marketing activities
- Developing a seamless transition from other storage management standards to Swordfish
  - Develop, with member support, final stage plan for SMI-S
- Educating everyone on the purpose and value of storage management
- Drive and expand use of interoperability environment (lab) for storage standards
- Partnering with other organizations to expand storage management standards
  - Active alliances with DMTF, NVM Express, OCP, OFA, and more.








# Storage Management Initiative: Structure and Members







Programs  
(pay to play)

Operations  
(Governing Board)







Marketing

Conformance  
Development

Interoperability  
Lab Enablement

# SMI Governing Board



**Richelle Ahlvers**  
Storage Management Architect, Intel  
SNIA Vice-Chair, SMI Chair and SMI  
Conformance Committee Chair, SMI Lab  
Enablement Co-Chair



**Chris Lionetti**  
Senior Technical Marketing Engineer,  
Hewlett Packard Enterprise  
SNIA Secretary, Executive Committee and  
SMI GB Member



**Barkz**  
Technical Director, Pure Storage  
SMI GB Member, SMI Lab Enablement Co-  
Chair



**Barry Kittner**  
SMI GB Non-voting Member



**Don Deel**  
SMI GB Non-voting Member

# Join SMI, SM Lab, CTP

SMI Annual Membership Fee	Member Fee	\$5,000 US
	"Start-up" Member Fee	\$1,000 US
SM Lab Annual Participation Fee (SMI membership required to participate)	Lab Provider/Service Developer Participant (Revenue greater than \$600M+)	\$25,000 US
	Lab Provider/Service Developer Participant (Revenue greater \$150M to \$600M)	\$20,000 US
	Lab Provider/Service Developer Participant (Revenue greater \$20M to \$150M)	\$15,000 US
	Lab Provider/Service Developer Participant (Revenue greater \$0M to \$20M)	\$11,000 US
	Infrastructure Developer Participant	\$15,000 US
	Storage Client Fee	\$10,000 US
Conformance Testing Program Subscription Fee (SMI CTP)	Storage "Start-up" Fee	
	SMI-S CTP Subscriber	\$15,000 US
	SMI-S CTP Maintenance Subscriber	\$7,500 US
	SMI-S CTP Subscriber (non-SNIA member)	\$25,000 US
	Swordfish CTP Subscriber (Note 1)	\$5,000
	Swordfish CTP Subscriber (non-SNIA member) (Note 1)	\$10,000 US

# SMI Participation

- Targeted Industry Impact:
  - Promoting, and accelerating adoption of industry standard storage management standards
  - Educating on importance of storage management and storage management standards
- Target Industry segments: All storage infrastructure (physical and virtual)
- Join the SMI and programs to accelerate adoption of storage standards and drive interoperability
  - Join SMI to help with marketing and education: we need resources to do more!
  - Participate in lab activities: test-a-thons, hack-a-thons, interoperability testing, accelerating development, work with conformance tests during development
  - Join Conformance Test Program – NVMe, FC, SAS, SATA, iSCSI
- For additional info, contact [storagemanagement@snia.org](mailto:storagemanagement@snia.org)





# Regional Groups

2021 Review and 2022 Plans

Presented by Paul Talbut, Regional Affiliate Program Director

# Regional Groups 2021 Accomplishments

- SNIA has global representation through various local groups, some of whom are well funded and structured (local BoD) and some who are simply individual champions
- Regions: EMEA, India, Japan, Brazil, Malaysia
- Highlights and challenges of 2021
  - Pandemic challenges have persisted, but all remain focused
  - Adapted well to using virtual platforms to deliver content
    - (Conferences, webcasts and podcasts)
  - SDC virtual events In EMEA and India created new attendance records
  - Large percentage of the SNIA audience resides outside the US, especially in India, so our marketing campaigns have a global reach
  - All regions require additional volunteer support

# Regional Groups Work Items 2022

- SDC EMEA will be virtual again on April 5<sup>th</sup>
  - Being virtual extends the engagement beyond the Israeli community
- SDC India – date and format to be announced
- SNIA Japan – storage trend seminars via Zoom
- Virtual meetups
- BrightTalk webcasts
- Podcasts – local speakers and topics

# Regional Groups Participation

- What is the expected industry impact of this work
  - International representation for SNIA expands the global coverage for standards and educational content
- What is the industry segment relevance
  - SNIA is recognized as a global association and we can deliver consistency of messaging and content
  - All regions desperately need more resources and access to content
- Why you should join and participate
  - Volunteer participation outside the US is the biggest single challenge
  - Please encourage your colleagues to consider joining or participating in SNIA's global regions
- Who to contact for additional information
  - Regional Affiliate Program Director [paul.talbut@snia.org](mailto:paul.talbut@snia.org)