



June 13-15, 2023

DoubleTree by Hilton San Jose

[SmartNICsSummit.com](http://SmartNICsSummit.com)

#SNS23

Welcome to the 2<sup>nd</sup> Annual

# SmartNICs Summit!

Chuck Sobey, General Chair  
President, Semper Technologies  
Chief Scientist, ChannelScience  
June 14, 2023

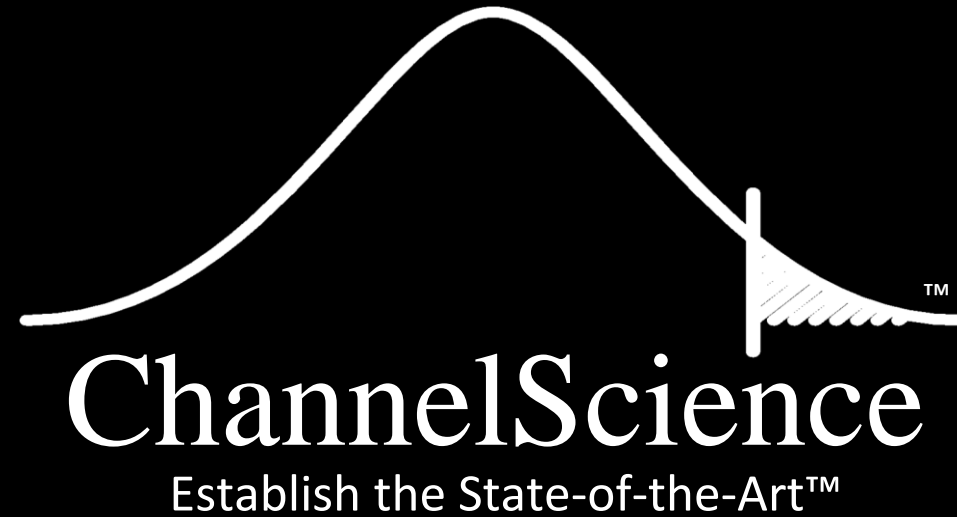
# Thank You, and Welcome All!

---

Exhibitors/Sponsors

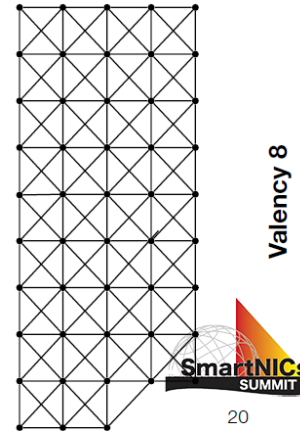
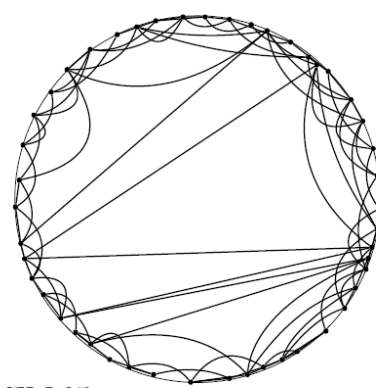
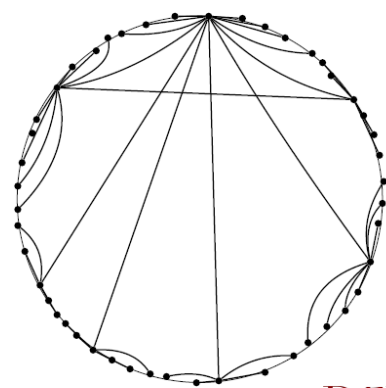
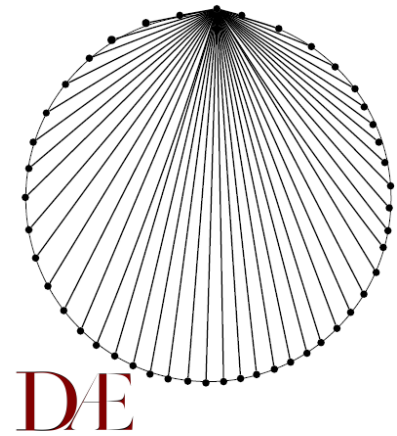
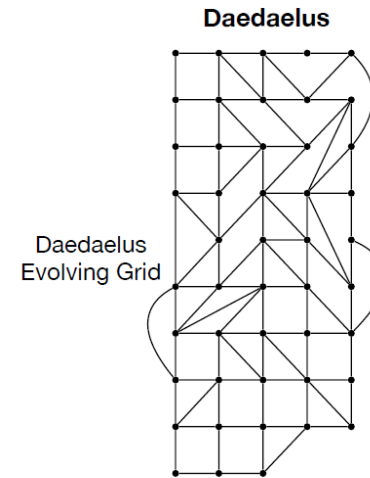
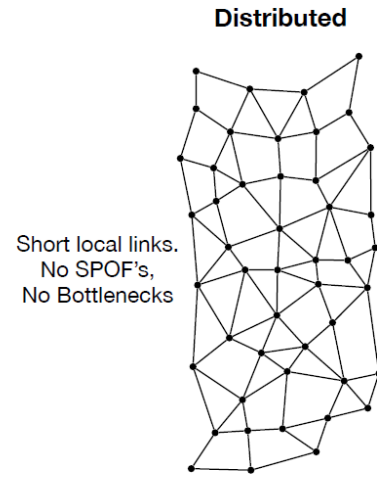
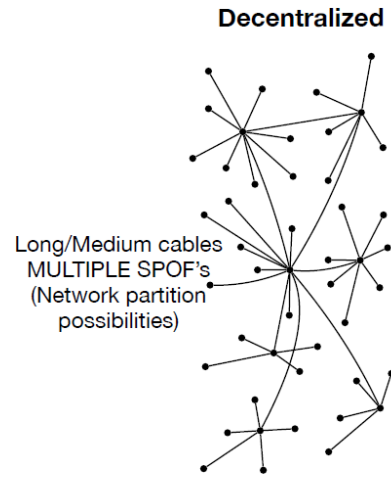
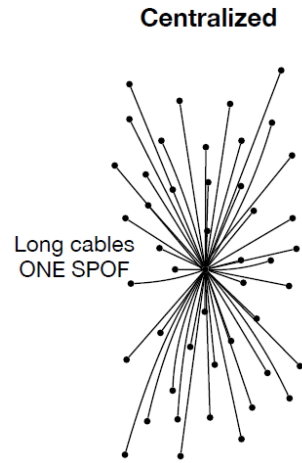
Organizers, Moderators, Chairs, Table  
Leaders, Speakers

Attendees: Industry, Universities, Institutions,  
Government, Investors, Press, Media,  
Analysts

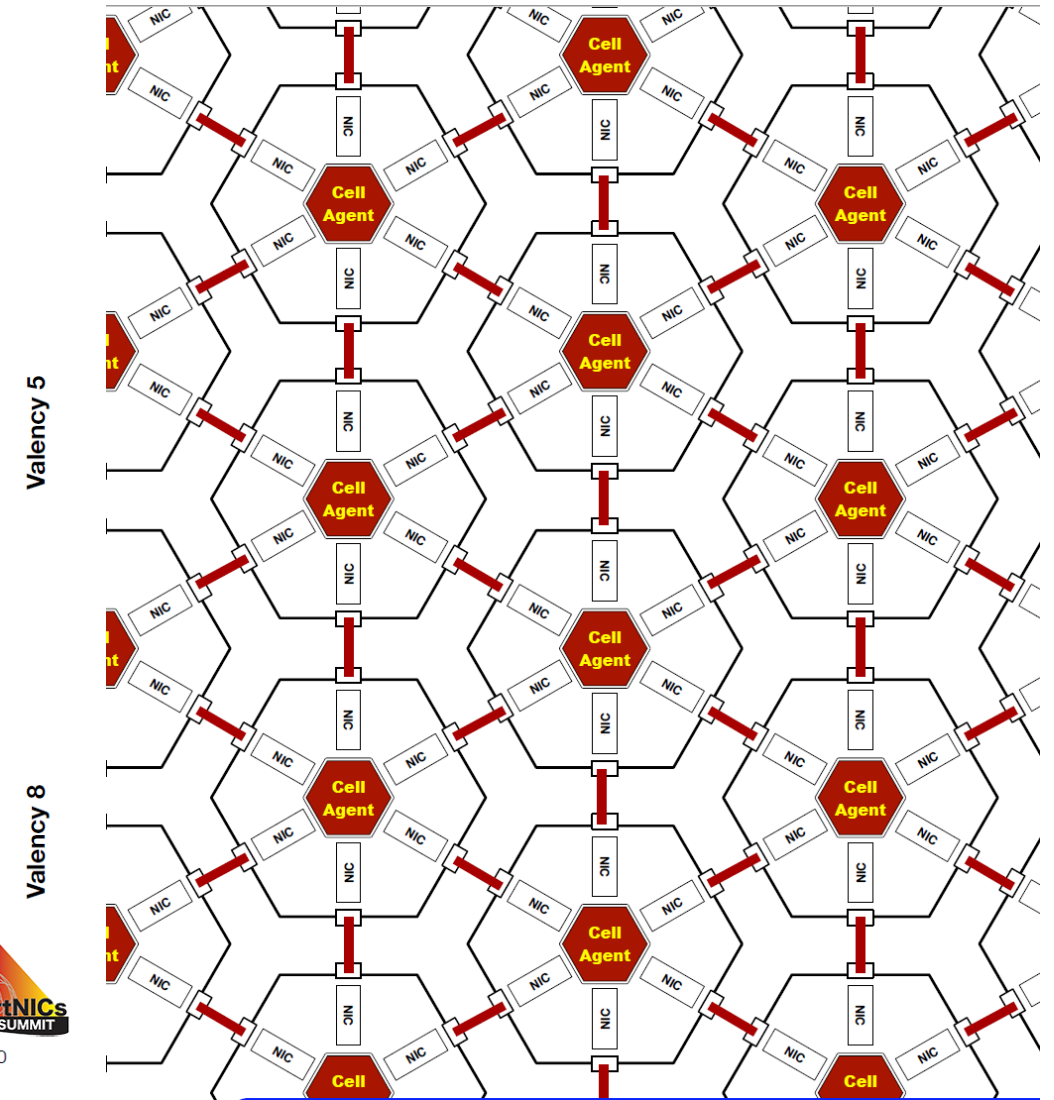


Technology Pathfinding, Roadmaps, and Strategy  
Emerging Memory, Storage, and Archive Technologies

# DAEDAELUS, Inc



20



<https://daedaelus.com/>

# Thank You, Organizing Committee!

Scott	Schweitzer	Achronix	Cyrus	Rafii	F5 Networks
John	Lockwood	Algo-Logic	Sean	Choi	Facebook
Rong	Pan	AMD	Stephen	Bates	Huawei
Ashwin	Thiagarajan	AMD	Ashish	Nadkarni	IDC
Robert	Winter	AMD	Phil	Cayton	Intel
Chris	Lyon	Amphenol	Venkata	Krishnan	Intel
Dhaval	Parikh	Arm	Venkat	Pullela	Keysight
Biren	Mehta	Arm	Sharon	Chehover	L7 Defense
Nabil	Damouny	Autonomous Edge	Marc	Leclerc	Noviflow
Roy	Chua	AvidThink	Rob	Davis	NVIDIA
Shashank	Balashankar	Canonical	John	Kim	NVIDIA
Serdar	Vural	Canonical	Dhabaleswar (DK)	Panda	Ohio State University
Artur	Jaworski	Codilime	Michael	Schill	Open Compute Project
Tomasz	Mika	Codilime	Mario	Baldi	Pensando Systems
Krzysztof	Wróbel	Codilime	Prem	Jonnalagadda	Phoelex
Jim	Finnegan	Corigine	Michael J	Aguilar	Sandia
Paul	Borrill	Daedaelus	Matthew Leon	Curry	Sandia National Laboratories
Yafei	Yang	DAPUSTor	Craig	Ulmer	Sandia National Laboratories
Claudio	DeSanti	Dell	Ahmet	Houssein	SiPanda
David	Black	Dell EMC	Ming	Liu	University of Wisconsin - Madison/VMware
Baron	Fung	Dell'Oro Group	Awanish	Verma	Xilinx
Paul	Pindell	F5 Networks	Ralph	Grundler	Independent Consultant
			Manoj	Roge	Independent Consultant



# Mark Carlson – You are Missed!

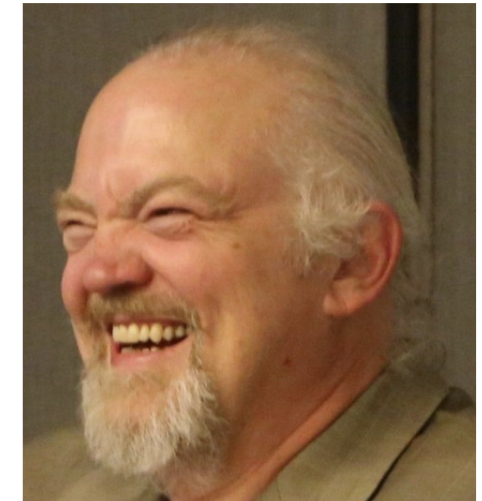
---

## In Memoriam, Mark Carlson

***For information regarding upcoming remembrance services for Mark Carlson, please [click here](#).***

It is with an extremely heavy heart for SNIA colleagues and friends to learn of the sudden passing of fellow SNIA member, Mark Carlson, on May 3, 2023.

Mark has been a pillar of SNIA technical work for the last 23 years. He was first elected to serve on SNIA's Technical Council (TC) in 2000, and served on the TC ever since. He was elected Vice-Chair of the TC in 2005, and served as either TC Chair or Co-Chair for 15 of those 23 years, guiding the execution of SNIA's technical mission.



*Mark Carlson*

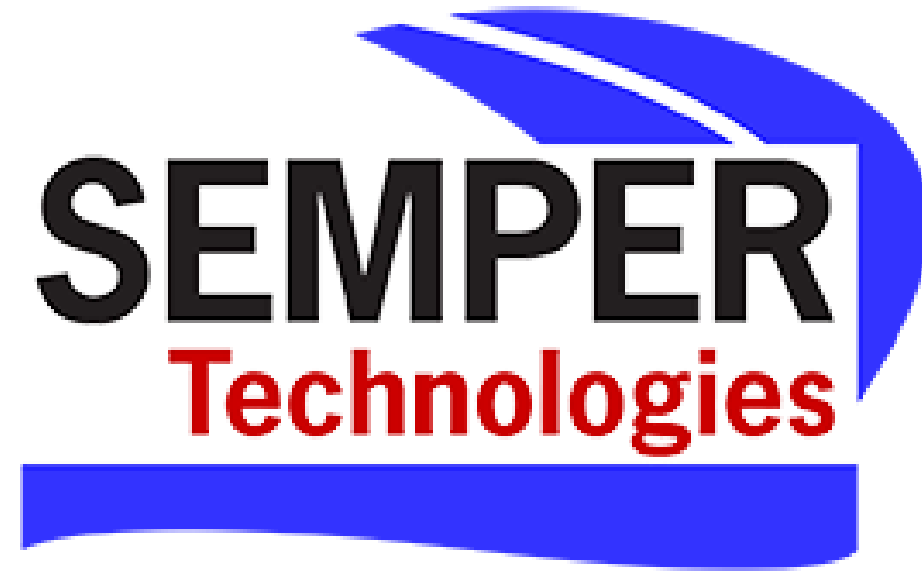


His extensive roles and contributions to SNIA Technical Work Groups (TWGs), Forums,

# If you Need Help During the Summit: Our Staff

---

- Lance Leventhal, Ph.D.
- Elizabeth Leventhal
- Marlene Flynn
- Steve Kompolt
- Roxana Sobey
- Chase Sobey
- Chuck Sobey



An Events Management Company



June 13-15, 2023  
DoubleTree by Hilton San Jose  
SmartNICsSummit.com

**Wi-Fi: MeetingRooms**  
**Password: encore23**

# Thank You, Exhibitors and Sponsors!

---



Special thanks to NVIDIA for their free Generative AI Acceleration tutorial!



June 13-15, 2023  
DoubleTree by Hilton San Jose  
SmartNICsSummit.com

<https://smartnicssummit.com/exhibitors-sponsors/>



# ~~19~~ Exhibitors!

## 21!

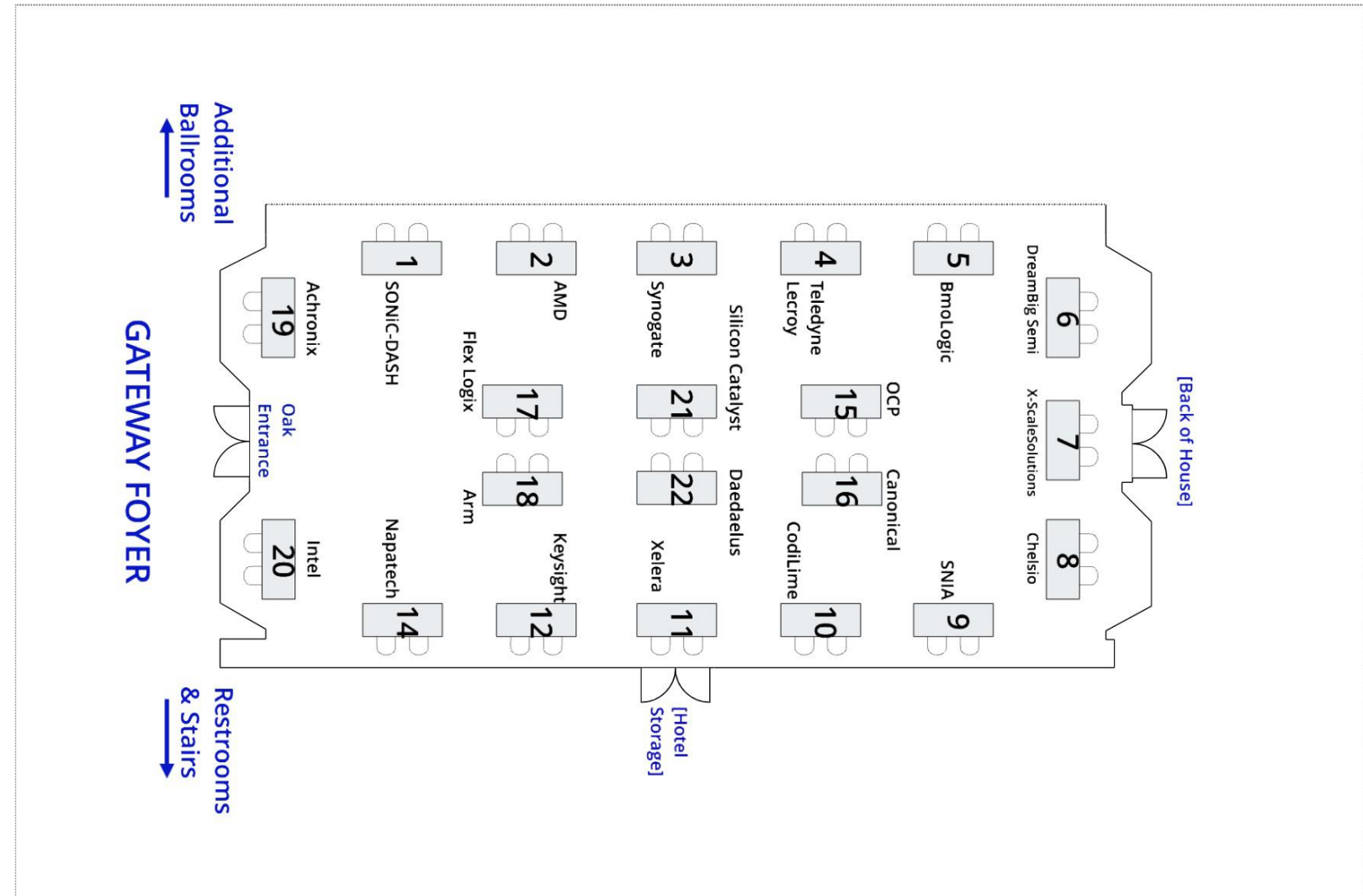
### Wednesday Exhibits

Noon – 2:00PM +Lunch

5:30-7:30 +Reception

### Thursday Exhibits

Noon – 2:00PM +Lunch



# Why SmartNICs/DPUs/IPUs?

---

SmartNICs/DPUs/IPUs are mainly at hyperscalers

Learn from them

- Increase performance and efficiency
- Save power
- Enable new capabilities

Who will adopt next?

What are the roadblocks/opportunities?

Who do you need to know?

What do you need to know?

# Data Center Infrastructure is Changing

---

We are transforming the infrastructure to consume AI in the cloud on a scale never before seen

- “The data center is the computing unit”

Large language models and generative AI of all kinds

- Having another “iPhone moment”
- The whole world clearly sees the possibilities are real

Control plane for AI – put the “constitution” into the hardware?



Source: NVIDIA

# AI is Everywhere

---

- AI team members
- AI “first drafters”
- AI companions
- AI agents

Rethink the infrastructure for “AI everywhere”

- Clouds for Generative AI
- Accelerators
- Special-purpose appliances

Need to connect AI to every source of data and action → Networks!

- AI “blind spots”

# Network Processors/Accelerators: SmartNICs, DPUs, IPU

---

I asked ChatGPT and Bard what the difference is.  
They had a lot to “say,” but here is summary table from Bard.

Feature	SmartNIC	DPU	IPU
Processing power	Less than a main processor	More than a SmartNIC	More than a DPU
Memory	Less than a main processor	More than a SmartNIC	More than a DPU
Cost	Lower than a DPU or IPU	Higher than a SmartNIC	Highest
Use cases	Network packet processing, encryption, compression	Storage, networking, security	Entire infrastructure stack

“If you are not sure which type of hardware is right for you, it is best to consult with a data center expert.” Bard



# You are in the Right Place!

---

Meet the leaders

See where the technology and industry are going

Find your next partner or customer!



June 13-15, 2023  
DoubleTree by Hilton San Jose  
[SmartNICsSummit.com](http://SmartNICsSummit.com)

# Overview of the Summit

---

## Pre-Conference (Tuesday)

4 Tutorials; 1 Workshop

Super Panel: Making SmartNICs/DPUs a Major Technology

Beer, Pizza, Chat with the Experts

## Main Conference (Wednesday and Thursday)

Plenary: Technology and Markets

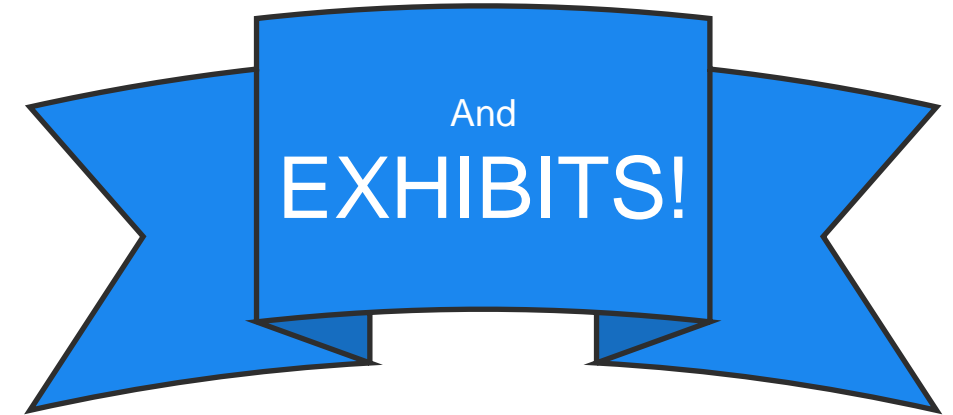
5 Keynotes

7 Special Presentations by Industry Associations

Presentation Tracks: 10 Sessions

Panel Track: 6 Sessions

Academic Track: Research Highlights



### **Wednesday Exhibits**

Noon – 2:00PM +Lunch

5:30-7:30 +Reception

### **Thursday Exhibits**

Noon – 2:00PM +Lunch

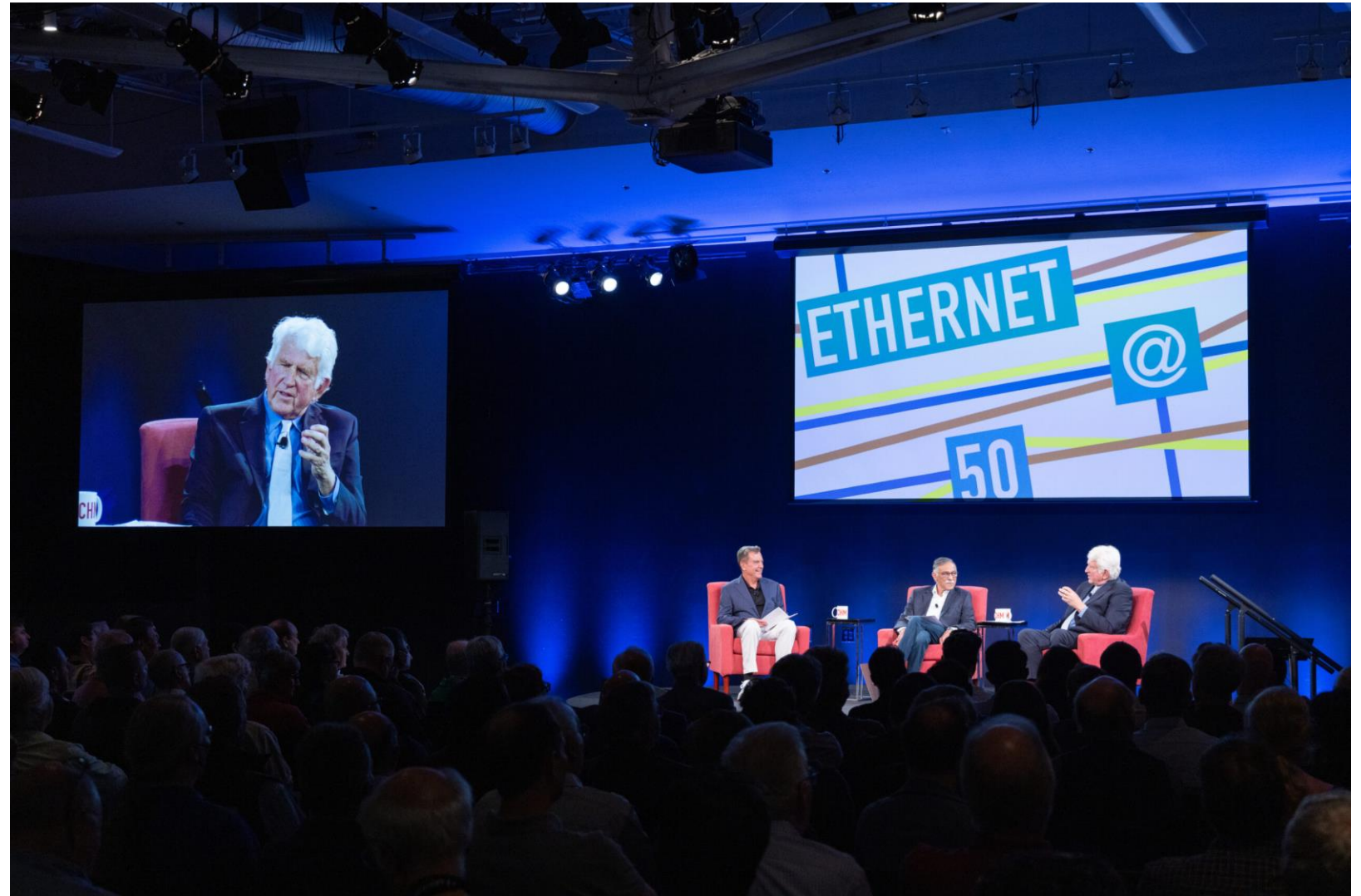
# Happy 50<sup>th</sup> Anniversary, Ethernet!

Congratulations Bob Metcalfe  
and Dave Boggs!

May 22, 1973 at Xerox PARC

<https://computerhistory.org/events/ethernet50/>

Hear the Ethernet Alliance's  
Special Presentation here,  
today at 10:40-10:50AM!





# Build Your Network

---

Point your cell phone's camera at the QR code

Follow the link

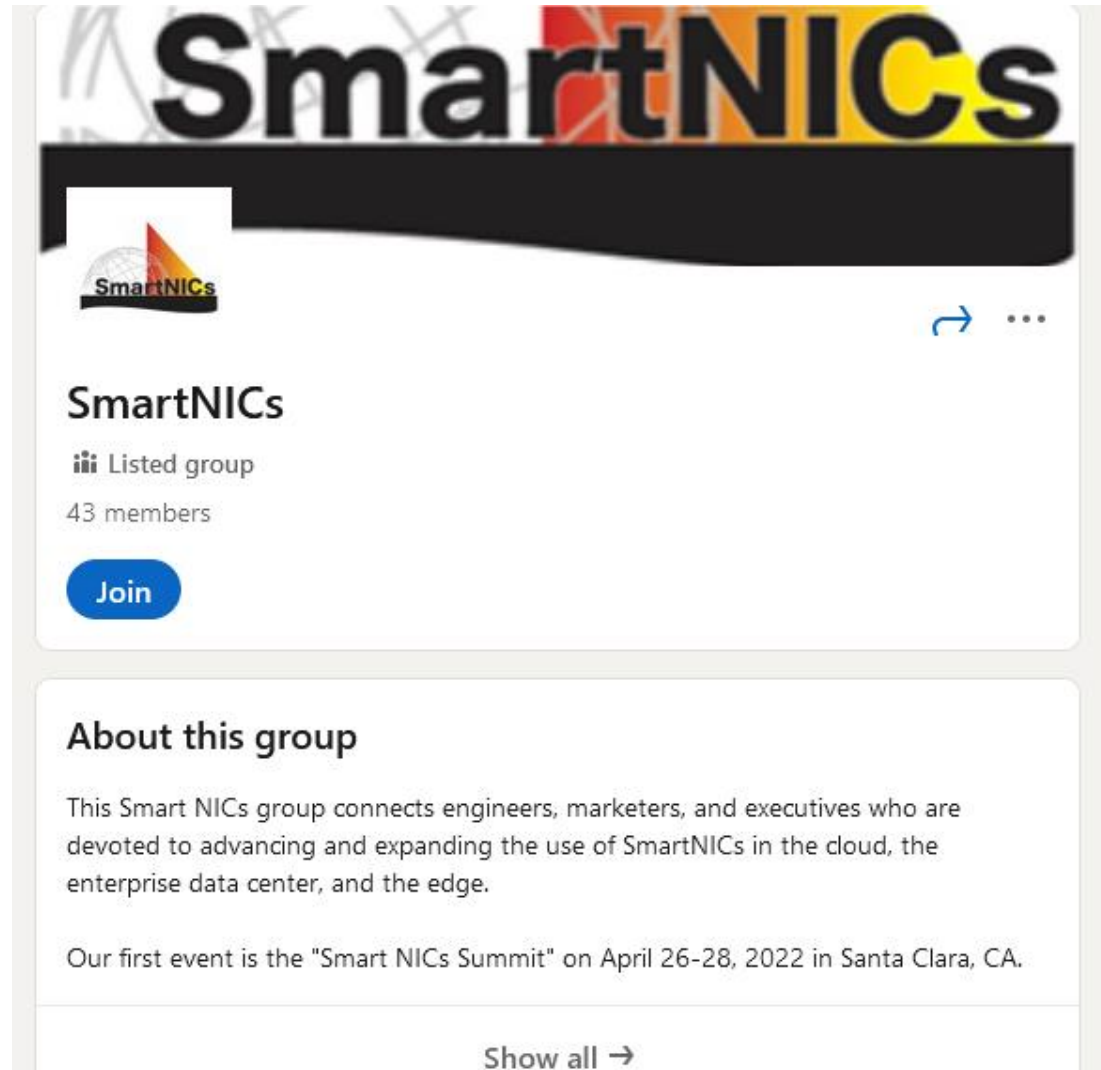
New contact is automatically created

**Wi-Fi: MeetingRooms**  
**Password: encore23**



# LinkedIn Group: SmartNICs

---



**Wi-Fi: MeetingRooms**  
**Password: encore23**



**June 13-15, 2023**  
DoubleTree by Hilton San Jose  
SmartNICsSummit.com

<https://www.linkedin.com/groups/14009056/>



# Please Join Us Again

---

## 2<sup>nd</sup> Annual Chiplet Summit

February 6-8, 2024 at the Santa Clara Convention Center

Signup now to exhibit

Call-for-Proposals is coming soon

Join our organizing committee

Chuck Sobey, [csobey@channelscience.com](mailto:csobey@channelscience.com) or 972-814-3441

## 3<sup>rd</sup> Annual SmartNICs Summit →

## Annual Generative AI Acceleration Summit!

June 12-14, 2024

Join our organizing committee



June 13-15, 2023  
DoubleTree by Hilton San Jose  
[SmartNICsSummit.com](http://SmartNICsSummit.com)

---

# Thank You!



June 13-15, 2023  
DoubleTree by Hilton San Jose  
[SmartNICsSummit.com](http://SmartNICsSummit.com)

# Plenary: SmartNICs – Where We are Today

---



Sponsored by Synagate

SmartNICs Market Update

Baron Fung, Research Director, Dell'Oro Group

State of SmartNICs Today

Scott Schweitzer, Director - SmartNIC Product  
Planning, Achronix



June 13-15, 2023  
DoubleTree by Hilton San Jose  
[SmartNICsSummit.com](http://SmartNICsSummit.com)

# Wednesday Keynotes and Special Presentations

---

10:10 - 10:40 AM	<b>Keynote 1: Intel</b>	<b>Kristie Mann</b> , VP/GM, IPU Business Unit, Intel Network and Edge Group, "Transforming Datacenter Infrastructure"
10:40 - 10:50 AM	<b>Special Presentation 1 - Ethernet Alliance</b>	<b>Peter Jones</b> , Chair, Ethernet Alliance, "Ethernet Alliance Promotes Higher Speeds and More Pervasive Usage"
10:50 - 11:20 AM	<b>Keynote 2: Microsoft</b>	<b>Gerald DeGrace</b> , Head Project Manager DASH Open Source, Microsoft, "SONiC-DASH: An Open-Source Project Delivering Enterprise Network Performance to Cloud Applications"
11:20 - 11:30 AM	<b>Special Presentation 2 - RISC-V International</b>	<b>Balaji Baktha</b> , CEO, Ventana Microsystems/Director, RISC-V International "RISC-V Powers the Next Leap Forward in Compute Systems Architecture"
11:30 - 11:40 AM	<b>Special Presentation 3 - SNIA</b>	<b>Joseph White</b> , Fellow, Dell, "SNIA Supports High-Speed Storage Interfaces Using DPUs and SmartNICs"
11:40 AM - 12:10 PM	<b>Keynote 3: NVIDIA</b>	<b>Kevin Deierling</b> , Sr VP Networking, NVIDIA, "SmartNICs and DPUs Accelerate Generative AI at Data Center Scale"

# Thursday Keynotes and Special Presentations

---

10:10 - 10:40 AM	<b>Keynote 4: AMD</b>	<b>Krishna Doddapaneni</b> , Corporate VP Pensando, AMD, "Building DPU Applications – It's All About the Software"
10:40 - 10:50 AM	<b>Special Presentation 4: Silicon Catalyst</b>	<b>Nick Kepler</b> , COO, Silicon Catalyst, "Incubating Semiconductor Startups"
10:50 - 11:00 AM	<b>Special Presentation 5: OCP</b>	<b>Elad Wind</b> , Incubation Committee Member, Open Compute Project; Solutions Platform Architect, NVIDIA, "OCP Server Project: Providing Standardized Specifications for Scale Computing "
11:00 - 11:10 AM	<b>Special Presentation 6: OPI (Open Programmable Infrastructure)</b>	<b>Joseph White</b> , TSC Chair, OPI/Fellow, Dell, and <b>Venkat Pallela</b> , Contributor, OPI/Chief of Technology Networking, Keysight "Why You Should Care About Open Programmable Infrastructure (OPI)"
11:10 - 11:20 AM	<b>Special Presentation 7: SNIA SFF-TA-1034</b>	<b>Anant Thakar</b> , Compute/Storage System Architect, Cisco Systems, "New Compact Form Factor for High-Performance Applications"
11:20 AM - Noon	<b>Keynote 5: VMware</b>	<b>Paul Turner</b> , VP Product Management vSphere, VMware, "Meeting the Latest Data Center Needs with DPUs"





**June 13-15, 2023**  
DoubleTree by Hilton San Jose  
[SmartNICsSummit.com](http://SmartNICsSummit.com)



**June 13-15, 2023**  
DoubleTree by Hilton San Jose  
[SmartNICsSummit.com](https://SmartNICsSummit.com)

# Thank You, Exhibitors and Sponsors!

---



Special thanks to NVIDIA for their free Generative AI Acceleration tutorial!



June 13-15, 2023  
DoubleTree by Hilton San Jose  
SmartNICsSummit.com

<https://smartnicssummit.com/exhibitors-sponsors/>

# ~~19~~ Exhibitors!

## 21!

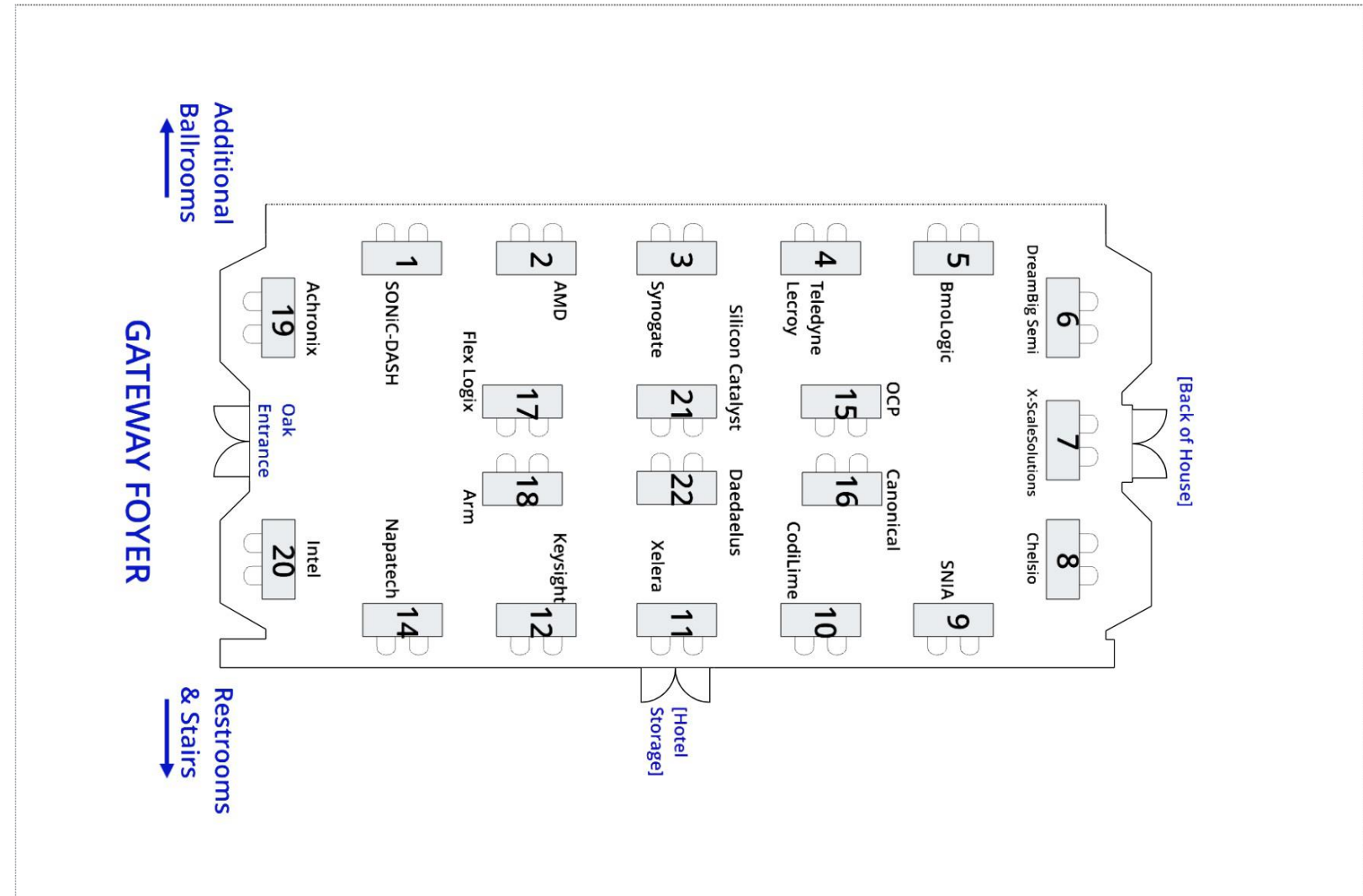
### Wednesday Exhibits

Noon – 2:00PM +Lunch

5:30-7:30 +Reception

### Thursday Exhibits

Noon – 2:00PM +Lunch



# Overview of the Summit

---

## Pre-Conference (Tuesday)

4 Tutorials; 1 Workshop

Super Panel: Making SmartNICs/DPUs a Major Technology

Beer, Pizza, Chat with the Experts

## Main Conference (Wednesday and Thursday)

Plenary: Technology and Markets

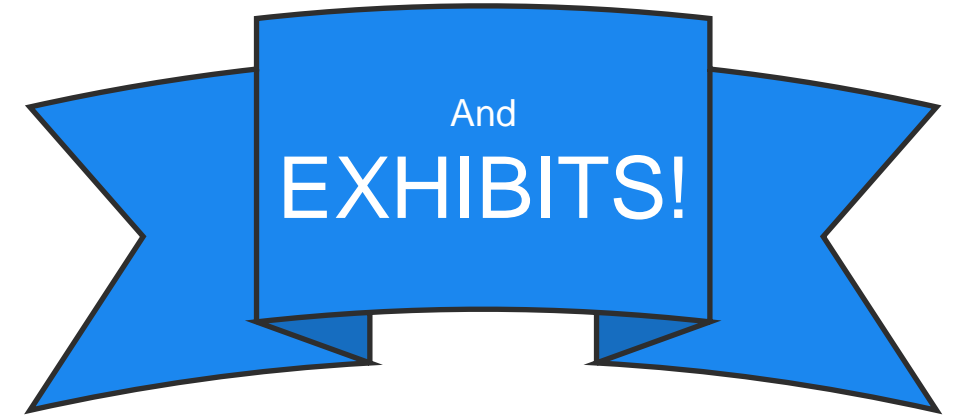
5 Keynotes

7 Special Presentations by Industry Associations

Presentation Tracks: 10 Sessions

Panel Track: 6 Sessions

Academic Track: Research Highlights



### **Wednesday Exhibits**

Noon – 2:00PM +Lunch

5:30-7:30 +Reception

### **Thursday Exhibits**

Noon – 2:00PM +Lunch



# Critical Mass is Here: Plan New Industry Association

A New Industry Consortium - Like the SNIA - For Distributed System API's on SmartNICs

A New IEEE Standards Effort, like IEEE 802, for the next Generation Ethernet Protocols

Lets start the Revolution here, at the SmartNICs Summit!

Meet Paul Borrill, CEO of DAEDAELUS and founder of SNIA

*Today, 12:30 by in Foyer by Document Table*



June 13-15, 2023  
DoubleTree by Hilton San Jose  
SmartNICsSummit.com

Paul Borrill  
Founder/CEO and Team  
[paul@daedaelus.com](mailto:paul@daedaelus.com)

