

SBE CHAPTER 70—CLEVELAND/AKRON

70 MINUTES

August 2020 Vol. XXVIII Number 8

Tuesday, August 11, 2020

Gather 6:30pm — Meeting 7:00pm

Chapter 70 meeting followed by election of officers

Meeting Information

Presentation: The Transition from SDI to ST 2110 IP and ST 2059 PTP – Best Practices and Lessons Learned – Karl Kuhn, Telestream

Our August Picnic Meeting will be done via remote technology due to COVID, so grab a refreshment and log into our Chapters new Zoom account beginning at 6:30PM on Tuesday, August 11th. We will begin the Chapter Meeting at 7PM, and will have a period prior to the meeting to ‘virtually socialize’.

Since this will not be our typical Picnic, we will have a Presentation of interest to follow. The Title is ‘The Transition from SDI to ST 2110 IP and ST 2059 PTP – Best Practices and Lessons Learned. While not a catchy title, it will be informational as the name implies. Our host will be Karl Kuhn, of Telestream. The Presentation will begin after the Chapter Meeting and Election. More details follow.

A link and the password to join the meeting is contained in the email with this newsletter.

Cook up a burger or hotdog, grab a refreshment, and log into the ‘Virtual Picnic’ beginning at 6:30pm Tuesday!

-John Hovanec CSRE/CBNT DRB, AMD
SBE Chapter 70 Program Chair

Chairman’s Chat by Blake Thompson

Hello all members and friends of SBE Chapter 70! I hope this finds you all well and staying as safe as possible. First up big chapter thanks to the Eaton folks for last months' program on UPS tech, even with all the similar programs we've seen recently it was still informative. We did run into more issues with getting people into the meeting (raises hand) but at least my audio seemed OK. On that front we have decided to use some of the funds saved from no foods to get our own Zoom room to host our meetings! That platform seemed to



(Continued on page 2)

Chairman's Chat (continued from page 1)

work the easiest for more people so far and it will run us less than \$20/month to have our own spot. We will have a vote during the meeting about continuing with it for a year to save a bit more. The plan would be to have some sort of remote access to all future meetings even when we can do in person again.

On the voting front it's that time again for the chapter, time to hide so you won't be nominated, ha. We have no plans to delay our August Election and we will definitely solicit for any interest in the various positions and appointments, and hopefully take a vote for any new Officer(s). Contact me (blake@uakron.edu) prior to next Tuesday if you are interested in any of our Chapter Officer Positions or Appointments so we can bring it up as part of the business meeting before our tentative Chapter Election next Tuesday. All positions are open and the Secretary position is even easier with a Zoom account for attendance & recording.

On the national front the annual election of SBE national officers and half of the 12 directors for the national SBE Board of Directors runs through August 19. A unique link to the ballot was emailed to members. Those who opted out of electronic voting have received and will cast their ballots through the mail. Please be sure to vote by 4:30 pm EDT on August 19!

The 56th SBE National Meeting, planned to be held in Syracuse, NY on Sept. 22 and 23, will now be conducted via the internet. The event was to be held in conjunction with the SBE Chapter 22 Broadcast & Technology Expo. Chapter 22 has announced that this year's event has been cancelled due to restrictions imposed by the state of New York due to the ongoing COVID-19 pandemic. SBE will hold a combined Annual Membership Meeting and National Awards Presentation via the internet at 7:00 p.m. EDT/4:00 p.m. PT on Wednesday, Sept. 23. Details on how to watch the on-line program will be shared soon via the SBE website, SBE-news email newsletter and social media.

A new SBE webinar, AoIP-Module 6: AES67 Basics: What It Is, and What It Is Not, will be held on Thursday August 13 at 2:00 pm EDT. Ken Tankel, senior product specialist, Telos Alliance will discuss how the AES67 standard for high-performance streaming audio-over-IP interoperability has become the standard for many television and radio engineers. Register at the SBE website, www.sbe.org. The webinar is free for SBE members with the MemberPlus option.

(Screenshots of the July Meeting with Eaton are on page 4)

Join the Zoom Meeting by clicking on the link below and then entering Passcode : **SBE70**
<https://zoom.us/j/7758076895?pwd=Q1V0SG4wb08yTlhyUDRoTEJhbnZldz09>

Or dial in via phone if you cannot join via internet/Zoom & use Meeting ID and Passcode below:
 1-312-626-6799 , or 1-929-436-2866

Meeting ID: 775 807 6895
 Passcode: 660999

Blake E. Thompson, CBNT
 BET Broadcast Engineering
 SBE Chapter 70 Chairman

 <p>Gary Liebisch Regional Sales Manager, Eastern US</p> <p>Tel: 1 740 513 2087 Mobile: 1 513 289 6322 Fax: 1 513 672 0600 gary.liebisch@nautel.com</p> <p>Making Digital Radio Work.</p>	<p>Broadcasters General Store</p>  <p>Mary Schnelle office: 513-899-3036 fax: 513-824-8113 cell: 513-476-4474 email: mary@bgs.cc web: www.bgs.cc</p> <p>Established in 1979</p> <p>2480 South East 52nd Street • Ocala, FL 34480</p>
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The Transition from SDI to ST 2110 IP and ST 2059 PTP

Best Practices and Lessons Learned



Karl Kuhn is a Principal Solutions Architect at Telestream specializing in next gen test and measurement of ST 2110 IP, ST 2059 PTP, 4K and UHD, HDR and WCG, and transmission. He launched his career at Tektronix in 2000. Prior to Tektronix he was the lead Video Test Engineer for IBM in their Digital Video Development Laboratory in Bethesda, MD. Karl holds 3 U.S. patents and 1 Japanese patent that cover In-service Testing of Digital Broadcast Video. He is a contributing author for the 11th Edition of the NAB Handbook responsible for chapter 2.9 covering Digital Video Standards and Practices. He is the Past SMPTE Eastern Region Governor and Past SMPTE North American Sections Director. In 2015 Karl was raised to SMPTE Fellow. He is also a Certified Project Management Professional thru PMI and the George Washington University.

This presentation will be a tutorial on what you need to know to understand the challenges we face in making the transition from SDI to an IP based transport for video, audio and data. Karl will share what he has learned by being involved in several ST 2110 and ST 2059 deployments with a focus on what questions early adopters wish they had asked. New troubleshooting methodologies are required to visualize variable delay across the network and how critical multilayer trend measurements can be made on the stream to improve QoS and QoE.



SBE 2020

Certification Exam Schedule

Exam Dates	Location	Application Date
February 7-17	Local Chapters	December 31, 2019
April 21	NAB Show in Las Vegas	March 8, 2020
June 5-15	Local Chapters	April 17, 2020
August 7-17	Local Chapters	June 12, 2020
November 6-16	Local Chapters	September 21, 2020

July Meeting in Pictures w/Eaton



Screenshots courtesy of Blake Thompson

Viewing Joel Williams's screen

Eaton's Modular and Scalable Solutions

Vertical
Single Phase --

9170 - 3 to 18kVA (N+1)

Horizontal
Single Phase --

9155 - 6 to 48kVA (N+1)

Vertical + Horizontal
Three-Phase --

93PM 20 to 800kW (N+1)

Three-Phase --

9355 - 10 to 90 kVA (N+1)

Three-Phase --

9390 - 20 to 640 kVA (N+1)

BladeUPS - 5 kW to 60 kW (N+1)

93E - 20 to 180 kVA (N+1)

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Viewing Joel Williams's screen

UPS Form Factors

2 in 1 rack or tower

Scaleable UPS

Large Tower UPS

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Viewing Joel Williams's screen

What do our part numbers mean?

Standby
• "Off Line"

Series 3
The Series 3 (Stand-By) UPS delivers power protection from 3 of the most common power problems that threaten your equipment and data

- Power failure
- Frequency
- Power surge

Line Interactive

Series 5
The Series 5 (Line-Interactive) UPS delivers power protection from 5 of the most common power problems that threaten your equipment and data

- Under-voltage
- Over-voltage

On Line
• "Double Conversion"

Series 9
The Series 9 (On-Line) UPS delivers power protection from all 9 of the most common power problems that threaten your equipment and data

- Switching transient
- Line noise
- Frequency variation
- Harmonic distortion

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Viewing Joel Williams's screen

Lithium vs. VRLA Comparison

- Lithium is a viable alternative to traditional VRLA offerings
- Lithium provides longer life (and warranties), higher operating temperatures, higher cycle rates and smaller footprints. These benefits, in turn, provide the lowest total cost of ownership!

VRLA	N54 VRLA	Samsung	LG Chem
<p>Lithium</p> <ul style="list-style-type: none"> • 50% smaller and warranty • 70% less weight • Higher operating temp (0 - 40°C) • >4x # of cycles 	<p>1kW: 51 Weight (lbs): 4335 Wt: 1436</p>	<p>1kW: 200 Wt: 29 Weight (lbs): 1213 Wt: 624</p>	<p>1kW: 250 Wt: 29 Weight (lbs): 1100 Wt: 432</p>

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Viewing Joel Williams's screen

Lithium – Chemistry Types

Samsung

LG Chem

Specific energy

Lithium Iron Phosphate (LFP) - Thermal runaway 270C

Specific energy

Lithium Manganese Oxide (LMO) - Thermal runaway 255C

Specific energy

Lithium Nickel Manganese Cobalt Oxide (NMC) - Thermal Runaway 215C

Specific energy

Lithium Cobalt Oxide (LCO) - Thermal runaway 170C

- *specific energy* - or capacity that relates to runtime
- *specific power* - or the ability to deliver high current
- *performance* - at hot and cold temperatures
- *life span* - reflecting cycle life and longevity

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Rewrite the rules of the game.

If you've been waiting for the perfect ProHD Broadcast and Production Camcorder, here is a serious tool for the next generation for shooting HD news, sports, documentaries, multi-camera shows and indies. With 720/60P capture and recording capabilities, JVC's GY-HD250U delivers HD images needed for demanding ENG, EFP and studio use.

The GY-HD250 Camcorder:

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- Multiple frame rate recording:
24, 25, 30, 50 & 60p
- Cross converter provides
720p or 1080i Output
- HD-SDI output w/embedded audio
- Record on tape and/or HDD
- Studio option with CCU

For more information or to schedule a demo, contact

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JVC PROFESSIONAL
440-572-9209 (office)
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TShirilla@JVC.com



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