2019 BICSI Winter Conference & Exhibition
January 20-24 • Orlando, FL, USA
Gaylord Palms Resort & Convention Center

Opening Keynote Speaker:
Shelly Palmer, LinkedIn’s
#1 Voice in Technology for 2017

The Global Leader in ICT Education and Certification
When you attend an industry conference, you expect to see a few things—presentations that spark innovative thinking and an Exhibit Hall featuring solutions for your business needs. At a BICSI conference you get all that and more. From day one, we focus on you and making your conference experience truly exceptional.

On-Trend Topics that Matter
Invest in your future and gain (ICT) Information and communications technology insight firsthand along with like-minded professionals with this season’s most innovative topics such as:

- Internet of Things (IoT)
- Passive Optical Networks (PONs)
- Smart Buildings
- Power over Ethernet (PoE)
- And much more!

Flexible Conference Presentations & Seminar Options
Available Sunday-Monday, the Pre-Conference Seminars are an exclusive learning opportunity and a great way to earn CECs, in addition to CECs earned from conference attendance. Exciting presentations continue Tuesday-Thursday, with an opportunity to design your own conference experience by choosing which Concurrent Sessions to attend on Wednesday.

Solutions in the Exhibit Hall
Join exhibitors from all backgrounds and verticals as they present their best products and services in BICSI’s Conference Exhibit Hall. Attendees can immediately utilize the knowledge and materials they gain for immediate use on the job or within their own business. Exhibitors range from cable and access control manufacturers to data center design and maintenance specialists.

BICSI Conference Exclusives
Stay up-to-date with the latest innovations and learn from ICT industry professionals up close, during BICSI’s What’s New, What’s It Do? (WNWID) presentations and speak directly to exhibitors at the New Product Pavilion. Plus you won’t want to miss the First-Time Exhibitor Pavilion—the designated area where brand new BICSI Conference exhibitors will be featured! Experience all the action live and take the opportunity to vote for “Best in Show” during these state-of-the-art conference events.
Experience Awaits You!

Join BICSI in the Sunshine State

At the 2019 BICSI Winter Conference & Exhibition, you’ll be able to supplement your knowledge with the latest technological advancements in the ICT world and get the chance to explore Florida’s premier vacation destination. Enjoy some leisure time and Florida fun with these fantastic local attractions and nearby destinations.

Grab Your Sunscreen and Experience Orlando

In addition to the conference action, the Gaylord Palm Resort and Convention Center has plenty of amenities to keep you entertained. If you’d like to explore Orlando, there’s a lot to see. Check out what Orlando has in store—all within 15 miles of the Winter Conference.

- Disney World, Animal Kingdom and Epcot
- Universal Studios Florida
- Universal’s Islands of Adventure
- Gatorland
- SeaWorld

Program Your GPS and Explore Florida

Want to venture out farther? Orlando is surrounded by many opportune places for entertaining experiences, as well. From the sandy shores of Daytona and Clearwater Beaches, to exhibits that are out-of-this-world at the Kennedy Space Center, Florida itself is a grand adventure. Discover more online for additional exciting things to do at: visitflorida.com.

“What I really like is the consistency of the presentations. I’ve been coming to BICSI conferences since 2002, and appreciate the efforts of the presenters. The presenters through the years know our industry and always present ICT topics in a very professional manner.”

- Michael Hassell, TECH, CT, Columbus, Ohio, USA
Shelly Palmer
Tuesday, January 22 | 8:45-9:30 a.m.

Named LinkedIn’s #1 Voice in Technology, Shelly Palmer is CEO of The Palmer Group, a strategic advisory, technology solutions and business development practice focused at the nexus of media and marketing with a special emphasis on machine learning and data-driven decision-making. On the air, Shelly is Fox 5 New York’s tech and digital media expert and a regular commentator on CNBC and CNN. Behind the scenes, he is the patented inventor of the underlying technology for Enhanced Television used by programs such as ABC’s “Who Wants to Be a Millionaire” and ESPN’s “Monday Night Football” and response-based advertising systems.

As an award-winning composer, producer, writer and director, Shelly has worked with hundreds of brands, agencies, broadcasters, publishers and tech platforms on advertising and marketing campaigns such as, Meow Mix, Burger King and The City of Las Vegas.

Shelly is a popular speaker and moderator at technology and media conferences hosted by industry organizations like: The Consumer Electronics Show (CES), The National Association of Broadcasters Convention (NAB), PromaxBDA, The National Association of Television Program Executives (NATPE), CTIA – The Wireless Association, and other major trade events. He is a guest lecturer at the MIT Media Lab, Stern Graduate Business School at NYU, The Columbia Institute for Tele-Information (CITI) at Columbia University, Tsinghua University, Rutgers Business School and other top-tier colleges and universities.

A prolific author, Shelly writes a daily newsletter and a weekly column for AdAge. His books include, “Television Disrupted: The Transition from Network to Networked TV,” the seminal book about the technological, economic and sociological forces that are changing everything, “Overcoming the Digital Divide: How to use Social Media and Digital Tools to Reinvent Yourself and Your Career” and “Digital Wisdom: Thought Leadership for a Connected World.”

Shelly is a past president of the National Academy of Television Arts and Sciences, the organization that bestows the coveted Emmy® Awards and currently serves on the boards of several philanthropic organizations.
CLOSING KEYNOTE
Admiral Mike “Wizard” McCabe
Thursday, January 24 | 10:30-11:30 a.m.

Mike McCabe is a highly decorated, experienced leader, former admiral and corporate CEO, who teaches others to lead teams to reach their potential. As head of all Naval Aviation, Admiral McCabe oversaw some of the deepest technological shifts and changes at the U.S. Navy. He ensured thousands of military personnel would be ready for these transformations and managed the budgets that supported these key innovations and changes. His career was driven by one motivation: sustaining a culture of excellence, while caring for his people, and he is eager to share these leadership values of care, action and innovation with today’s decision-makers.

Mike draws inspiration from his father, a World War II Navy pilot and early jet pilot, who was killed deploying to the Korean War. Eighteen months after graduating college, Mike was flying combat missions under the mentorship of one of the original TOPGUN instructors, shooting down MiGs together. He became the Executive Officer of TOPGUN himself, and the two combined again to contribute to the movie “Top Gun.”

Mike commanded at every operational level of the Navy. His five commands at sea ranged from 14 Fighters and 300 personnel to a U.S. Fleet of 43,000 personnel, with 1,400 aircraft and 88 ships. In these commands, he was able to achieve excellence, while suffering no operational loss of life. His combat decorations include the Silver Star and Distinguished Flying Cross. He also served as the Director of Air Warfare for the Navy and was in the Pentagon when the 9/11 terrorist attack struck the building directly below his office. During that tour, he was largely responsible for the next generation of Naval Aviation technology, aircraft and aircraft carriers.

Following Navy retirement, he became the CEO/President of a large commercial charter airline which flew for the Department of Defense, Homeland Security and Justice, sports teams and vacation companies. He grew the airline into a multimillion-dollar business, which routinely received performance bonuses. He left the airline and retired a second time to battle cancer. Having survived air combat, the 9/11 attacks and intestinal cancer, Mike embodies the spirit of “Glad To Be Here®” and lives in a “pay it forward” mode, bringing his storied experience and passion to helping teams and leaders.
CONFERENCE SCHEDULE

SUNDAY  Jan. 20

7:30 a.m.-5 p.m.
Attendee Registration and Information

7:30 a.m.-6 p.m.
Exhibitor Registration and Information

Pre-Conference Seminars (choose one)
8:30 a.m.-4:30 p.m.

- “Fundamentals of Passive Optical LAN”
  - Matt Miller – CallisonRTKL – Baltimore, Maryland, USA
  - Chad Hines – ITConnect Inc. – Santa Fe, New Mexico, USA
  - Thomas Ruvarac – Association for Passive Optical LAN – Naperville, IL, USA

- HDBaseT Installer Expert Program
  - Daniel Shwartzberg – HDBaseT Alliance – Beaverton, Oregon, USA

3 CECs
 Passive Optical LANs are quickly growing as a cost-effect replacement for traditional copper Local Area Networks by reducing power, space and cooling requirements, while increasing the longevity of structured cabling. Attendees in this seminar will first be given fundamental knowledge on the underlying technologies in POL. The seminar will then build on this knowledge to allow attendees to understand the various components involved and combine that with existing design experience to design the infrastructure for a POL. The seminar will conclude with attendees having a full design to delivery understanding of Passive Optical LAN.

Pre-Conference Seminar
8:30 a.m.—noon

- Four Pair PoE: Powering the Future of Intelligent Buildings and the IoT
  - Mark Mullins – Fluke Networks – Everett, Washington, USA
  - Carol Everett Oliver, RCDD – SIEMON – Watertown, Connecticut, USA
  - Todd Frederes – CISCO – West Des Moines, Iowa, USA
  - Geoffrey Bauer, ESS – Axis Communications – Rockford, Illinois, USA
  - Luis Suau, ESS – Ciscos Systems, Inc. – Miami, Florida, USA

3 CECs
 This seminar is targeted at professionals who would like to learn more about HDBaseT technology. This seminar includes the following modules: technology principles, installation do’s and don’ts and best practices, product certification and interoperability and a hands-on tutorial and demonstration. In addition, the seminar examines the opportunities and implications of AV/IT integration and how an HDBaseT hybrid installation (HDBaseT and HDBaseT-IP) can simplify connectivity, while protecting sunk investment and future-proofing applications.

Pre-Conference Seminars (choose one)
1-4:30 p.m.

- The Fiber Formula – Fact, Fiction & Fantasy
  - Rodney Casteele, RCDD, DCDC, NTS, OSP – CommScope – Claremont, North Carolina, USA
  - Dr. Paul Neveux – Superior Essex – Atlanta, Georgia, USA
  - Tyler Vander Ploeg, RCDD – VIAVI Solutions – Bothell, Washington, USA
  - Romain Tursi – EXFO – Quebec, Quebec, Canada
  - Rob Gilberti – AFL – Lowell, Massachusetts, USA
  - Jim Davis – Fluke Networks – Everett, Washington, USA
  - David Asta, RCDD – Panduit Corp. – Tinley Park, Illinois, USA
  - Tony Irujo – OFS – Sturbridge, Massachusetts, USA

3 CECs
 Is it enough to just KNOW about fiber or should you really UNDERSTAND fiber? What formula do you use to determine if your data center fiber design is acceptable for both today’s and tomorrow’s high-speed applications. How do you actually qualify and quantify your data center fiber infrastructure? Do your current fiber practices meet industry best practices and standards? Come see how your fiber design and installation practices stack up.

MONDAY  Jan. 21

7:30 a.m.- 7:30 p.m.
Attendee and Exhibitor Registration and Information

Pre-Conference Seminar
8:30 a.m.—4:30 p.m.

- Advanced AV System Trends, Technology and Design Considerations for Datacom Professionals
  - Joseph Cornwall – Legrand – New Port Richey, Florida, USA

6 CECs
 AV system design and bid specification must balance spatial, radiometric and temporal elements with display size selected for both content and viewer position in order to maximize the investment’s utility and value. LAN impact, network payload, mobile integration, scalability and extreme-bandwidth connectivity are elements of a successful design. In this seminar, attendees will explore cutting-edge AV industry trends, technology and best-practices that answer the challenges of contemporary huddle space, conference room, classroom and digital signage installations.

Pre-Conference Seminars (choose one)
8:30 a.m.—noon

- Four Pair PoE: Powering the Future of Intelligent Buildings and the IoT
  - Mark Mullins – Fluke Networks – Everett, Washington, USA
  - Carol Everett Oliver, RCDD – SIEMON – Watertown, Connecticut, USA
  - Todd Frederes – CISCO – West Des Moines, Iowa, USA
  - Geoffrey Bauer, ESS – Axis Communications – Rockford, Illinois, USA
  - Luis Suau, ESS – Ciscos Systems, Inc. – Miami, Florida, USA

3 CECs
 While PoE has been around for some time, recent changes in its capabilities promise to take it from an occasional power source to the significant force in powering the IoT and intelligent buildings. With that change will come new capabilities and experiences for users along with new requirements affecting cabling design, installation and testing. This seminar will cover what designers, installers and maintainers need to know when working with the future of remote power delivery.

- Achieve Better Broadband Access Combining Fiber Infrastructure and Wireless Networks Over New Construction Techniques
  - Patrick Sims, RCDD – SimCo Engineering – Plymouth, Minnesota, USA

3 CECs
 We continue to build upon separate copper, fiber or wireless access solutions. Today we are forced to look at how we support the Internet of Things (IoT), Virtual Reality, Artificial Intelligence and Edge Computing. We need to include better than the “me too” Fiber or Wireless solutions. We have options to combine a robust fiber distribution network with a robust LTE and 5G Wireless Network leveraging both licensed and unlicensed spectrum above and below 6 GHz.
“Data Center Free Cooling from Intermediate Fluid Vaporizer Process”  
Dr. Montri Wiboonrat – Thammasat University – Patumtani, Thailand  
3 CECs  
Applying technology of Intermediate Fluid Vaporizers (IFV) for data center cooling systems reduces data center operating costs by half. The waste energy from process of LNG Vaporizer for LNG Regasification Terminal can be applied as a free cooling source for data center cooling systems. This process is going to reduce long term operating costs by 50%, making return on investment shorter than five years.

Pre-Conference Seminars (choose one)  
1–4:30 p.m.

“Back to Basics: Realizing Cabling Determines Design”  
F. Patrick Mahoney, RCDD – Direct Supply Aptura – West Seneca, New York, USA  
3 CECs  
Are your designs constructable? Will cables pass testing the first time? This seminar will review how things you thought you knew could be wrong. Many installers and designers have you over simplified conduit sizing. In this seminar, you will develop confidence you have considered all the parameters when sizing conduits for varied cables and installations. Attendees will review and calculate pulling tension. We will examine cabling distribution design implementation for installation, adds and changes.

“Beyond 2019: Insights Into Fiber Optic Connector Technology—A Study for Designers, Installers and Trainers”  
Edward J. Forrest, Jr. – RaceMarketingServices – Marietta, Georgia, USA  
3 CECs  
As fiber optic deployments expand, new users are incorporated. Some “fear the medium.” Time and again, while design and installation are critical, the majority of “problems” are centered on proper inspection and cleaning techniques. Existing standards are driven by commercial products. This seminar is based on “science” and resolves 60+ percent of network problems: proper cleaning methods and procedures. The seminar promotes science rather than commercialism!

Karl Rosenberg – Extron Electronics – Anaheim, California, USA  
3 CECs  
With AV collaboration rooms and collaboration hardware and software on the rise, current CATx infrastructure makes integration of these technologies possible with relative ease. With our ability to connect from nearly anywhere in the world, collaboration rooms have become commonplace and more popular than ever. Communication in the workplace is necessary in all forms and has become an integral part of projects, planning and management. Employees are more commonly using BYO style devices and are tasked with sharing content from a variety of different operating systems, often using software codecs like SKYPE or ZOOM as their means of connecting. Solutions are emerging that make these modern workspaces more simple to install and design. In this seminar, we are going to discuss the changes and considerations to the modern collaboration workspace and infrastructure, as well as give you the tools needed to enable you to address the challenges of collaboration workspace installations. We will discuss Video over Twisted Pair, including HDBaseT, HDMI and USB. Focus will be placed on recording and streaming to remote locations, followed by a discussion into the new world of AV over IP and network infrastructure at our conclusion.

4–4:30 p.m.  
Exhibit Hall Ribbon-Cutting Ceremony  
4:30–7:30 p.m.  
Exhibition and Reception  
4:30–7:30 p.m.  
Cabling Skills Challenge  

TUESDAY  Jan. 22

7:30–7:30 p.m.  
Attendee and Exhibitor Registration and Information  

General Session  
8:30–8:45 a.m.  
Conference Call to Order and Opening Remarks  

8:45–9:30 a.m.  
Opening Keynote – Shelly Palmer  

9:30–10:30 a.m.  
“Implementing Digital Building Strategies and Applications Within the Hospitality Space”  
Brian Ensign, RCDD, NTS, OSP, RTPM, CSI – Superior Essex – York, Pennsylvania, USA  
Farukh Aslam – Sinclair Holdings, LLC – Ft. Worth, Texas, USA  
Lisa Isaacson – NuLEDs, Inc. – Carlsbad, California, USA  
Rebecca Gilstrap – Legrand – West Hartford, Connecticut, USA  
Luis Suau – CISCO Systems, Inc.– Miami, Florida, USA  

This presentation will cover the real-world implementation of the digital building strategies and applications within the hospitality space. The focus will be on a multi-story hotel, which has been designed and constructed with digital and intelligent applications as the forefront of technology within the spaces. The panel will discuss design best practices and strategies that will fully enable intelligent and efficient spaces.

10:30–11 a.m.  
Break  

11 a.m.–noon  
BICSI Annual Membership Meeting  

Noon-1:30 p.m.  
Lunch (Attendees responsible for their own lunch)
1:30-2:30 p.m.  
**“General Balanced Single-Pair Cabling Infrastructure for Powering and Communicating with IoT and IBS Devices”**  
○ Masood Shariff – CommScope – Santa Clara, California, USA

Balanced single-pair cabling has the advantage of small size, high density and favorable economics to match the need for connecting large numbers of sensors, actuators, building automation systems and IoT devices that are becoming prevalent in smart buildings. This presentation covers generic balanced single-pair cabling comprised of interoperable components and standardized interfaces, paving the way for the next generation of connectivity needed to improve the comfort, security and efficiency of buildings and their occupants.

2-7:30 p.m.  
**Exhibit Hall Open**

2-7:30 p.m.  
**Cabling Skills Challenge**

2:30-3:15 p.m.  
**“TIA’s Smart Buildings Certification Program”**  
○ Limor Schafman – Telecommunications Industry Association – Arlington, Virginia, USA

TIA, with its valued members and the broader Smart Building Ecosystem, is developing an assessment and certification program for smart buildings. This presentation will discuss the program and how to participate in it.

3:15-3:30 p.m.  
**Break**

3:30-4:30 p.m.  
**“Modern Intelligent Buildings and Their Role in the Network-Connected Economy”**  
○ Todd Boucher, RCDD – Leading Edge Design Group – Enfield, New Hampshire, USA

Intelligent buildings play a critical role in how organizations compete and thrive in the network-connected economy and in the communities where we live and work. Modern, technologically-advanced facilities impact the employee wellness and retention, improve organizational value and attract more innovation to a region. This presentation will explore how technology will change the way we work, discuss our industry’s inflection point and review opportunities to change how buildings are designed and built.

4:30-7:30 p.m.  
**Exhibition and Reception**

**WEDNESDAY  Jan. 23**

7:30 a.m.-1 p.m.  
**Exhibit Hall Open**

7:30 a.m.-4:30 p.m.  
**Attendee Registration and Information**

7:30 a.m.-3 p.m.  
**Exhibitor Registration and Information**

**9 a.m. Concurrent Sessions (choose one)**

- **“The Real Impact of High-Power PoE on Your IP Network”**  
  ○ Cindy Montstream, RCDD, NTS – Legrand – New London, Connecticut, USA  
  ○ Jason Finnegan – Legrand – New London, Connecticut, USA  
  ○ Amir Sekhavat – Superior Essex – Atlanta, Georgia, USA

Do you know what impact high-power PoE will have on your network? The networks of the past were not designed for the PoE of the future. Lighting systems using PoE technology are growing in popularity, bringing efficiency to smart buildings. With IoT, more systems and devices will use PoE, resulting in cabling being exposed to higher temperatures for long periods of time. Learn what potential risks exist and what can be done to eliminate them.

- **“Video: Transmission Choices and Network Impacts”**  
  ○ David Stephens – Belden – Indianapolis, Indiana, USA

This presentation explores HDBaseT, SDVoE, and AVB transmission solutions and some of the current compression standards. We will look at the effects HDR and WGC (Wide Gamut 10/12 bit Color) have in building an immersive viewing experience and the impact these have on transmission. With so many alliances in place and continuing to develop their solutions, we will look at how integrators are using these differing solutions to solve the needs of their clients.

- **“Data Centers from the Edge: What Will it Take to Meet Demands of Edge Applications?”**  
  ○ Harry Smeenk – Telecommunications Industry Association – Plano, Texas, USA

Edge computing is revolutionizing how quickly we can process data in real time. But what’s next? Edge data centers will quickly be developed at a large scale, creating a large network. The infrastructure for these will be completely different than today’s traditional data centers. It might be small clusters on a rack-mounted cabinet located on a street corner, at the base of a cell tower, or in a shelter behind the corner gas station.

- **“Eliminating the Confusion from Seismic Codes & Standards”**  
  ○ Daniel Duggan – CADDY (nVent) – Solon, Ohio, USA  
  ○ Olivier Braquet – CADDY (nVent) – Solon, Ohio, USA

This presentation will describe and demystify the sources and connections between the building code and its referenced standards for the seismic protection of telecommunications components, equipment and their supports, by citing the specific references in them and showing the attendees where to find this information, rather than having to rely on vague and/or misrepresented information, which leads to confusion in the industry and unnecessary expense.

10-10:30 a.m.  
**Break**
Take a fresh look at the next generation of sound masking and how this technology continues to expand the integrator’s opportunity for success at an impressive pace. Truly understand the science behind the masking of human speech. This presentation looks deeply into the role modern architecture plays in terms of technology selection and prepares integrators for the successful deployment of sound masking systems through proper calibration and system adjustment, as demonstrated by industry experts.

“Practical Lightning Mitigation”
- Jerry Hogan – Solara Technical – Spearfish, South Dakota, USA

Lightning can affect electronic systems, often in catastrophic ways. This presentation will review some of the problems and suggest practical mitigation methods to reduce system susceptibility. Our discussion will concentrate on radio antennas feeding into small shelters or enclosures, along with proper grounding, inductance effects, soil quality and multi-point grounding.

“Make the Most of Your Intelligent PDU Investment”
- Matthew Burkle – Chatsworth Products, Inc. – Upper Arlington, Ohio, USA

You have invested in intelligent PDUs, but are you using and enjoying all of the benefits? As data center environments become more complex, user requirements and solutions for rack power distribution are changing and intelligent PDUs are taking the front seat in investments. This presentation will cover the benefits of intelligent PDUs and describe important capabilities that help boost the return on investment (ROI) in the short and long term.

- Adrian Young – Leviton Network Solutions – Bothell, Washington, USA
- Jim Davis – Fluke Networks – Everett, Washington, USA

While the similarities between single-mode and multi-mode installation and testing are similar, there are important differences and considerations that should be acknowledged by even the most experienced network engineers. Some of these things include what’s driving single-mode adoption, duplex vs. MTP single-mode options, understanding insertion loss budgets, optimizing your cabling system for density, cable and end face testing tips, as well as troubleshooting OTDR. And while there are some traditional thoughts around single-mode, there are some misconceptions. Are single-mode connections harder to keep clean? Is there a cost premium to single-mode transceivers? Are all single-mode applications duplex? What are the safety concerns with the higher-powered single-mode lasers? What are the ideal distances for single-mode? Do you need attenuators on shorter links? Does reflectance make single-mode harder to test? This presentation will put your next single-mode project on the right path.

10:30-11:30 a.m.
Concurrent Sessions (choose one)
- “Beyond the Noise...Sound Masking Optimized for Integrators”
  - Todd Berger – Cambridge Sound Management – Waltham, Massachusetts, USA

- Adrian Young – Leviton Network Solutions – Bothell, Washington, USA
- Jim Davis – Fluke Networks – Everett, Washington, USA

While the similarities between single-mode and multi-mode installation and testing are similar, there are important differences and considerations that should be acknowledged by even the most experienced network engineers. Some of these things include what’s driving single-mode adoption, duplex vs. MTP single-mode options, understanding insertion loss budgets, optimizing your cabling system for density, cable and end face testing tips, as well as troubleshooting OTDR. And while there are some traditional thoughts around single-mode, there are some misconceptions. Are single-mode connections harder to keep clean? Is there a cost premium to single-mode transceivers? Are all single-mode applications duplex? What are the safety concerns with the higher-powered single-mode lasers? What are the ideal distances for single-mode? Do you need attenuators on shorter links? Does reflectance make single-mode harder to test? This presentation will put your next single-mode project on the right path.
The design, specification and project management of even complex inter-dependent systems are well defined as industry standards and best practices. Just imagine that your project is anything but a standard run-of-the-mill project. Short timelines for design to completion, unconventional spaces and regulatory compliance can all be complicating factors, requiring imaginative or unconventional solutions. Wet locations, very high ceiling decks with no concealment for cabling or devices and limited mounting options and large stacked metal containers in the middle of wireless coverage areas are significant issues to overcome. A good understanding of all the system requirements, code requirements, contractor management and the ability to adapt and resolve issues in real-time can mean the difference between success and failure. Logs, documents and other written records may be the difference in successfully negotiating change orders.

“Navigating the Federal Marketplace for Design, Installation and Procurement Opportunities for the ICT Professional”
- Nicholas Larkins, RCDD – SureFire Innovations – Cincinnati, Ohio, USA

Entering the Federal Marketplace can be a daunting task for the ICT professional who has little or no experience dealing with Federal Business Opportunities, Federal Supply Schedules, Design Standards (ISA, UFCs, etc.), Set Aside Programs and/or Specific Guidelines that must be comprehensively understood. This presentation will provide a better understanding of where to start, what to do and what not to do to be successful in the Federal Marketplace.

“Channel, E to E and MPTL: Similar Typologies But Different Testing Methods and Standards”
- Michael Bunning, RCDD – Softing, Inc. – Knoxville, Tennessee, USA

Channel Testing is no longer the fallback solution for MPTL and End to End cable certification. Recent clarity in standards means there are now different test methods contractors must know in order to certify emerging cabling topologies going forward. This presentation offers an in-depth look at the differences between topologies and which test methods and standards apply to each for certification. Presenters will also discuss the impact of these changes on manufacturer warranties.

“UPS Replacement – Considerations for Optimal Performance While Minimizing Risk”
- John Gray, RCDD – Schneider Electric – O’Fallon, Missouri, USA

A myriad of legacy UPSs in the mission-critical industry shall be approaching End of Life (EoL). This presentation provides recommendations on key points that should be considered when replacing an EoL UPS for optimal performance while minimizing potential risks associated with critical systems replacement.

This presentation will outline the evolution of the RCDD knowledge base over the last 34 years and then provide insights into emerging technologies and the standards and applications that are driving them in three major focus areas: Wireless, AV and ESS. This presentation is intended to inspire the modern day RCDD to look beyond the conventional SCS design and realize how far their design skills can reach into the 21st Century.

9:15-10 a.m.
“Connecting the World: Specifying Structured Cabling for International Markets”
- Peter Helfrich, RCDD – Leviton Network Solutions – Bothell, Washington, USA

Global networks require IT professionals who understand the differences and similarities among the World’s leading codes and standards. Being familiar with the business protocols, tariffs, customs and market preferences inside and outside the United States is critical. In the practical application of these concepts, that means knowing the differences between ANSI TIA 568 and ISO/IEC 11801, the expanding influence of BICSI, fire ratings of cables, different cable constructions and wallplate needs for different regions.

10:10:15 a.m.
Break

10:15-10:30 a.m.
BICSI Cares Presentation and Drawing

10:30–11:30 a.m.
Closing Keynote – Admiral Mike McCabe

11:30 a.m.-noon
Conference Wrap-up, Closing Video and Door Prize Drawing

BICSI believes strongly in competition. U.S. antitrust laws are the rules under which our competitive system operates. It is BICSI’s policy to comply in all respects with the antitrust laws. Association meetings or workshops by their very nature bring competitors together. Accordingly, it is necessary to avoid discussions of sensitive topics. Agreements to fix prices, allocate markets, engage in product boycotts and to refuse to deal with third parties are automatically illegal under the antitrust laws. It does not matter what the reason for the agreement might be.

Accordingly, at any association meeting discussions of prices (including elements of prices such as allowances and credit terms), quality ratings of suppliers, and discussions that may cause a competitor to cease purchasing from a particular supplier, or selling to a particular customer, should be avoided. Also, there should be no discussion that might be interpreted as a dividing up of territories.

An antitrust violation does not require proof of a formal agreement. A discussion of a sensitive topic, such as price, followed by action by those involved or present at the discussion is enough to show a price-fixing conspiracy. As a result, those attending an association-sponsored meeting should remember the importance of avoiding not only unlawful activities, but even the appearance of unlawful activity.
“Attending BICSI conferences gives me both professional fulfillment and personal satisfaction. There’s education in conference presentations, as well as in the Exhibit Hall. You can explore all kinds of volunteer opportunities during committee meetings. And the networking can’t be beat!”

– David Levine, RCDD – Director of Sales – Network Cabling Solutions, Milwaukee, Wisconsin, USA

Save up to $100 on a full-conference registration by signing up before December 21. Along with this spectacular discount, you’ll have access to conference information and highlights in advance—allowing ample time to plan your trip to Orlando.

Registration is easy with our online registration form; find it at bicsi.org/winter/reg. You can also call us at +1 813.979.1991 or 800.242.7405 (USA & Canada toll-free).

We just know you’re going to love attending the 2019 BICSI Winter Conference & Exhibition. If for any reason you need to cancel your registration, please visit bicsi.org/cancellation to view our cancellation policy.

All prices are listed in U.S. dollars.

Register Online!
bicsi.org/winter/reg

### FULL-CONFERENCE REGISTRATION

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<th>Available through Dec. 21</th>
<th>Available between Dec. 22-Jan. 17</th>
<th>On-site registration begins Jan. 20</th>
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<td><strong>EARLY BIRD DISCOUNT</strong></td>
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Available between Dec. 22-Jan. 17
On-site registration begins Jan. 20

Additional registration categories and pricing can be found on the enclosed registration form and online at bicsi.org/winter/reg.

### EARN YOUR CECs AT THE CONFERENCE

Conferences are an ideal time to earn the continuing education credits (CECs) you need for credential renewal. CECs will be awarded based on the number of days you attend the conference. Reference the chart on the right to see which registration category best fits your needs.

**ADDITIONAL INFORMATION**
The CEC totals listed here do not include the Pre-Conference Seminars’ CECs or the Pre-Conference Courses’ CECs. All CECs earned from the Winter Conference attendance and/or Pre-Conference events will appear on your transcript approximately 30 business days after the conference.

#### Conference Dates

<table>
<thead>
<tr>
<th>Conference Dates</th>
<th>One-Day</th>
<th>Two-Day</th>
<th>Full-Conference</th>
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<td>Yes</td>
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<tr>
<td>January 22-24</td>
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#### CECs

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<td>Certified Trainer</td>
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BICSI is your association. In order to bring you the best events, products and services, we need your help. Sitting in on and volunteering for a BICSI Committee is the best way you can contribute to BICSI and also gain valuable insight into the ICT community and changes in the industry. Consider adding one of these meetings to your conference schedule.

**SATURDAY** Jan. 19

8-10 a.m.  
Finance & Audit Committee Meeting

10 a.m.—noon  
Program Coordination Committee Meeting

Noon-5 p.m.  
Board of Directors Meeting

**SUNDAY** Jan. 20

8-9:30 a.m.  
BICSI Cares Committee Meeting

8 a.m.—3 p.m.  
Registrations and Credentials Supervision Committee Meeting

8:30-10 a.m.  
Standards: OSP Construction & Installation Methods Subcommittee Meeting

8:30 a.m.—noon  
Membership Outreach and Development Committee Meeting

10:30 a.m.—noon  
Membership Outreach and Development: Technician & Education Subcommittee Meeting

**MONDAY** Jan. 21

1-2 p.m.  
Standards: Intelligent Building Subcommittee Meeting

2-4 p.m.  
Standards: Wireless Systems Subcommittee Meeting

3-6 p.m.  
Ethics Committee Meeting

4-6 p.m.  
Nominating Committee Meeting

7:30-10:30 a.m.  
Standards: Codes Subcommittee Meeting

7:30 a.m.—noon  
Global Development Committee Meeting

8-11:30 a.m.  
Education Advancement Committee Meeting

10:30-11:30 a.m.  
Standards: Building Information Modeling Subcommittee Meeting

10:45 a.m.—12:15 p.m.  
Membership Outreach and Development: Technician & Education Subcommittee Meeting

11:30 a.m.—1:30 p.m.  
Technical Information and Methods Committee Meeting

2-4 p.m.  
Standards Committee Meeting

**TUESDAY** Jan. 22

Noon-1:30 p.m.  
Exhibitor Liaison Committee Meeting

**WEDNESDAY** Jan. 23

Noon-1:30 p.m.  
Past Presidents Meeting

**THURSDAY** Jan. 24

Noon-5 p.m.  
Board of Directors Meeting
HOTEL INFORMATION

BICSI Headquarters Hotel—Gaylord Palms Resort and Convention Center
6000 W. Osceola Parkway
Kissimmee, Florida 34746 USA
Tel: +1 407.586.0000

BICSI has secured special rates at the Gaylord Palms Resort and Convention Center. Visit bicsi.org/winter/hotel for information, including pricing and travel. Book your room by December 21 to secure the discounted rate.

BICSI’s headquarters hotel has many hidden gems. From exploring the Everglades atrium, to watching stingrays glide by in the waters of the Key West atrium while dining on a 60-foot sailboat, the Gaylord Palms Resort and Convention Center is an adventure in itself! The resort also offers an exclusive adult-only pool, beautiful rooms in a modern setting, many themed restaurants, a waterpark, treehouse playground, golf, fitness center, spa and much more! This extraordinary location is sure to add even more enjoyment to your 2019 Winter Conference experience.

Rates include fees which are used to offset and defray the logistical and convention center costs associated with this conference.
2019 BICSI Cabling Skills Challenge

Competition: January 21-23

Compete. Sponsor. Take part in this exciting event!

COMPETE for the title of BICSI Installer of the Year and showcase your amazing installation skills! All current BICSI Installers and Technicians are eligible to enter. Prizes will be awarded, and the overall winner will walk away with $5,000.

SPONSOR the Challenge to increase your brand recognition while supporting information and communications technology (ICT) industry excellence. Competitors will use your products in the event. Multiple sponsorship options are available.

Visit bicsi.org/skillschallenge for a competitor application, as well as a sponsorship form.

Imagine winning $5,000 cash & bragging rights as the 2019 BICSI Installer of the Year!
Why Exhibit at a BICSI Conference?

BICSI’s Exhibit Hall is known as one of the most expansive and diverse in the ICT industry!

Grow your customer base, reach decision-makers and gain valuable networking time with industry professionals who are seriously committed to industry excellence. Exclusive to this year’s Winter Conference, exhibitors can participate in both the New Product Pavilion and What’s New, What’s It Do? presentations.

New BICSI Conference Exhibitor?

Give your company a grand debut at the First-Time Exhibitor Pavilion. This setup offers a seamless opportunity for new exhibitors to introduce themselves to the movers and shakers of the ICT industry, all at a discounted rate of $2,500.

Multiply Your Exposure as a Conference Sponsor

Sponsorships offer a cost-effective way to spread your name throughout the ICT Industry. Amplify your presence with an exclusive conference sponsorship as attendees tour the Exhibit Hall and convention center.

New Product Pavilion

The New Product Pavilion gives attendees a sneak peek by showcasing your new products and services in the Exhibit Hall. Attendees can vote on the best product in each category and “Best in Show.” Winners will be displayed on BICSI’s post-conference website and given a digital “winner” banner to use on theirs.

What’s New, What’s It Do?

Introduce a fresh and innovative product with an interactive What’s New, What’s It Do? (WNWID) presentation in the BICSI Theater. This exclusive area inside the Exhibit Hall offers exhibitors five-minute sessions to show their products or services to conference attendees.

For more information on all exhibitor and sponsorship opportunities, download the 2019 Exhibitor Prospectus online at bicsi.org/winter or email Courtney Nalls, Exhibit Sales and Marketing Manager, at cnalls@bicsi.org.

About BICSI

BICSI is a global association that supports the information and communications technology (ICT) industry. BICSI members and credential holders are the individuals that design, install, manage and maintain ICT projects. BICSI serves nearly 23,000 ICT professionals through training, publications and credentials. Headquartered in Tampa, Florida, USA, BICSI membership spans nearly 100 countries.

“BICSI events allow Cambridge Sound Management to interact with a knowledgeable and engaged audience that is always looking for new products, technologies and services that they can provide to their end user clients. Plus, the events are always well organized, attended and fun—BICSI knows how to create a lively atmosphere on the exhibit floor.”

-Mark Hughes, Cambridge Sound Management
INVEST IN YOUR FUTURE AND GAIN ICT INSIGHT AT BICSI’S WINTER CONFERENCE!

CLOSING KEYNOTE SPEAKER: FORMER ADMIRAL AND CEO, MIKE “WIZARD” McCABE

Mike embodies the spirit of “Glad To Be Here®” and lives in a “pay it forward mode,” bringing his storied experience and passion to helping teams and leaders.

REGISTER TODAY TO SAVE $100 bisci.org/winter/reg