

UPCOMING EVENTS

TOP STORIES

- We were thrilled to announce our support for the [Industrial Market](#) along with three new members: **Belden**, **General Electric** and **National Instruments**.
- We were proud to announce our [First Certified Audio Endpoint Reference Platform](#) from XMOS.
- RSVP for the **February Face-to-Face** happening February 18-19, 2015 at Harman in Salt Lake City, UT. If you are a member who is interested in attending, please get in touch at administration@Avnu.org.

NAMM Show 2015

January 22-25, 2015
(Anaheim, CA)

ISE 2015

February 10-12, 2015
(Amsterdam RAI, NL)

AVnu Alliance Face-to-Face

February 18-19, 2015
(Harman)

April All Member Meeting

April 29-30, 2015
(Hilton Santa Clara)

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LETTER FROM THE BOARD OF DIRECTORS

We are wrapping up 2014 on a high note with several major announcements that took us into new market segments.

On December 10, we proudly announced the launch of our support for the Industrial market with new capabilities for standard Ethernet. The Industrial market, which parallels work that AVnu Alliance members have been doing in the Automotive segment, is a \$150 billion a year market space and creates a pathway to the future of IoT. It was exciting to share our plans for providing the industrial community with the ability to support reliable and precise synchronized networking for industrial control with Ethernet TSN.

We are building the common networking foundation and we invite companies interested in shaping industrial Ethernet to join the effort. We are preparing to launch an Industrial Advisory Council (free to join) for manufacturers and end-users. Please contact administration@avnu.org to get more information.

Along with our expansion into this market, we are pleased to welcome three new members:

- Belden, with its Hirschmann brand, a global leader for mission-critical industrial network infrastructure and is well known for their automation brands.
- General Electric, global leader in creating electrical infrastructure with advanced technologies to safely distribute, protect and control electricity.
- National Instruments, the leading test, measurement and embedded systems provider for engineers and scientists.

These three companies are leaders in the industrial, automation and IT infrastructure space, and we are honored to have them working within the Alliance to develop key elements for industrial applications.

As 2014 comes to an end, we wish all our members, colleagues and friends a Happy New Year! We are excited to start 2015 off on a strong note and we appreciate all the community support.

- The AVnu Alliance Board of Directors



Photo credit: Connected Planet

HERE'S WHAT WE'VE BEEN UP TO

First Reference Platform for Audio Endpoint is Certified

Earlier this month, we announced that the XMOS AVB hardware and software reference platform passed all testing for certification and now bears the AVnu-certified Logo. It also marked the first certified audio endpoint reference platform for the Alliance.



XMOS AVB Audio Endpoint Reference Platform

"AVnu certification reinforces XMOS's leading position in the audio market, adding AVB standards-based networked audio connectivity to our already established USB Audio 2.0 solutions," said Paul Neil, Vice President Product Management, at XMOS. "AVB standards have huge benefits for our customers; by selecting XMOS our customers can add the enhanced functionality that AVB provides and through software development quickly create a portfolio of AVB enabled products. We chose to pursue AVnu certification to provide our customers fast time-to-market with a proven, flexible, scalable networked audio connectivity solution."

New Website

On the same day we announced our Industrial segment, the AVnu Alliance also launched a brand new website. After months of work on the project and lots of help from our Branding Taskgroup, www.avnu.org has received a complete redesign with new technology pages and an expansive [Knowledge base](#) and detailed section for the [Industrial market](#). Please visit the site to get all kinds of useful information, use cases, white papers and more.

Reliable Synchronized Networking

The AVnu Alliance is a community creating an interoperable ecosystem serving the precise timing and low latency requirements of diverse applications using open standards through certification.

TECHNOLOGY			
<p>ROUNDED LATENCY</p> <p>In AVB/TSN the maximum latency is determined and allows low latency applications from live performance AV to machine control. MORE</p>	<p>RESERVED BANDWIDTH</p> <p>Instead of requiring complicated network engineering, devices can automatically reserve the bandwidth needed to deliver latency-critical. MORE</p>	<p>DISTRIBUTED TIMING</p> <p>All devices in the network have a very precise time reference that can be used to synchronize AV streams or sensors data acquisition. MORE</p>	<p>GET INVOLVED</p> <p>Join AVnu and collaborate with leading technology companies in the ecosystem. MORE</p>

Upcoming Events for AVnu Alliance

NAMM 2015



NAMM Show is one of the most influential professional audio and music tradeshows in the world. This year, AVnu Alliance's Rex Reed from Harman and Tom Knesel from Pivotec will give a presentation entitled: *Designing and Specifying AVB in Live Sound Environments in the NAMM Show Education HOT Zone* from 3:00-3:50 p.m. on January 23rd.

Integrated Systems Europe 2015



ISE is a joint venture between InfoComm International and the Custom Electronic Design & Installation Association (CEDIA) since 2007. The show attracts professionals from every link in the systems integration value-chain, including manufacturers, distributors, dealers, contractors and consultants. ISE also draws ever-growing numbers of end customers, from fields as diverse as education, sports, corporate facilities, hospitality and live events. ISE will be held in Amsterdam RAI, NL on February 10-12, 2015.

We are putting together plans for the show now. If you are a member company who is interested in participating please get in touch about co-exhibiting or other opportunities. The Alliance is already holding planning calls. [Contact us](#) now to be put on the list for more information.

AVnu Alliance in the News

Industrial

The Industrial announcement garnered a great deal of media attention and coverage, and representatives from new member companies participated in several in-depth press interviews to share the news.

AVnu Alliance members, Cisco and National Instruments along with the Alliance President, Rick Kreifeldt, all got together to film a podcast to discuss the launch of the new segment and do an overview of TSN. Please view the video on our [YouTube channel](#).

Gary Mitchell from *The Manufacturing Connection* wrote that the Industrial launch from AVnu Alliance, "foretells significant impact on industrial Ethernet and potentially all the suppliers." He called the Alliance's work that feeds back into IEEE standards, "even more significant." His article highlights details of his interview with Dan Sexton, GE, Paul Didier, Cisco and Todd Walter, National Instruments, and explains just how significant a move this was. Read his entire article [here](#).

EETimes Industrial Control reporter, Rich Quinell went more in-depth on the TSN expansion, outlining the Ethernet subgroups and benefits of TSN including, "TSN is... aiming to keep worst-case delays under 4 microseconds per hop (at 1 Gbit/s for short messages). It also aims to improve network robustness by providing alternative paths and multiple clock paths with instantaneous switchover, along with seamless redundancy using multiple simultaneous streams. The standard further aims to be scalable to large installations by reducing management traffic needed for configuration and bandwidth reservations." Read more [here](#).

Professional AV

Following the announcement of XMOS audio endpoint reference platform becoming AVnu-certified, *Lighting and Sound America* shared the news stating, "The newly AVnu-certified XMOS AVB hardware and software reference platform is a scalable and production-ready solution that allows customers to quickly and easily build a wide range of AVB-enabled audio products." Read the full story [here](#).

EDN Europe also picked up the story and shared with readers, "Fabless chip maker XMOS (designer of multicore, deterministic MCUs), and the AVnu Alliance, an industry consortium that aims to drive open standards-based deterministic networking through certification, have announced the first AVnu-certified Audio Video Bridging (AVB) audio endpoint reference platform." Read more [here](#).

Automotive

Rick Kreifeldt, President of the Alliance, recently spoke with Junko Yoshida from *EETimes* about the opportunities for Ethernet for Drive-by-Wire.

According to Yoshida, "Two big, irreversible tides -- the growing bandwidth inside cars and increasing communication complexity -- have given rise to Ethernet in the automotive world." Her full analysis is [here](#).

Consumer Electronics

We recently released a white paper entitled, "The Power of Sync in Networked Consumer Audio" by audio expert, Brent Butterworth, with a focus on what AVB is, why we need it and the Alliance's role in advancing it in the marketplace. Jeremy Glowacki from *Residential Systems* shared the whitepaper and says why AVB is necessary because "consumers own more devices than ever, have shifted their consumption from physical to digital content, and home networks have become nearly ubiquitous."

You can download the full white paper [here](#) on Residential Systems or in the Knowledge base section of our website.

Member News and Recognition

- John McMahon, Vice President of Solutions and Strategy at Meyer Sound, was featured in *Systems Contractor News'* Top 50 Integrator Voices. He shared which technologies and/or verticals he believed were most successful in 2014 and which one he felt was on the rise. See the full feature [here](#).

- AVnu Member Axon Digital recently received the IABM prestigious Peter Wayne award to acknowledge their innovative neuron networked live production system. The award was announced at the IABM Annual International Business Conference. See the full write up [here](#).



Axon Digital Team accepts the Peter Wayne Award

- AVnu Member, Biamp Systems had several noteworthy announcements in the past month including the launch of their Arabic website that will provide information on Biamp products and services to Arabic customers through both desktop and mobile devices. They also unveiled Tesira® 2.3, the latest to their award-winning line of digital signal processing based products, with added IEEE 1722.1 functionality, enhanced reporting capabilities, Audio-Technica® microphone software, and telephony support.

Updates for Members

- Please plan to RSVP by contacting AVnu Administration (administration@avnu.org) for our next F2F happening February 18-19 at Harman..
- AVnu is sponsoring a technical Conference on Time Sensitive Networking (TSN) and Applications on April 28-29, 2015 at the Hilton Santa Clara.
- If you have ideas for stories, news, case studies, awards, photos or other submissions you want shared in the newsletter, please email them to AVnu@castercomm.com.
- See the two new reference books on Ethernet for vehicles - *Automotive Ethernet* by Bob Metcalfe and *Automotive Ethernet* by Kirsten Matheus.

Get Social!

Join our communities: Connect with AVnu Alliance and get up to date announcements about where we're going and what we're doing on our Twitter account ([@AVnu_Alliance](https://twitter.com/AVnu_Alliance)). Use the hashtag #AVnuChat or #AVnuTSN and make sure you catch our updates on our [LinkedIn page!](#)