



# Press Release

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## **HARMAN OPEN SOURCES TECHNOLOGY TO ACCELERATE ADOPTION OF ETHERNET IN CONNECTED CARS**

*Company Makes Significant Contribution to Global Automotive Community to Help Accelerate Adoption of Ethernet Audio Video Bridging in Connected Car*

**Stamford, CT, November 3, 2015** – HARMAN (NYSE: HAR), the premier connected technologies company for automotive, consumer and enterprise markets, today announced it made an open source software contribution to the [Open AVB project](#) to help drive the adoption of Ethernet AVB/TSN (Audio Video Bridging/Time Sensitive Networking) in automotive, consumer, pro audio/video and industrial markets. The contributed technology includes major enhancements to the AVTP (Audio Video Transport Protocol) data pipeline and aims to modernize and prepare the connected car with flexible, scalable and secure in-vehicle networking technology while addressing an increased need for highly reliable communication in the vehicle.

As the auto industry continues to move towards making autonomous driving a reality, there is an increased need for highly dependable, cross-domain communication in the vehicle. Ethernet AVB represents a reliable solution. By replacing both the physical complexity of analog cables and the network complexity of earlier proprietary solutions, AVB brings an open, standards-based approach that enables interoperable platforms to offer more affordable and better market solutions.

Backed by the [AVnu Alliance](#)®, a community creating an interoperable ecosystem of low-latency, time-synchronized, highly reliable networked devices using open standards through certification, the Open AVB project provides essential network building blocks, drivers, libraries and example application best practices for building AVB/TSN systems.

“The Open AVB Project, with contributions from AVnu Alliance members, will provide components needed for manufacturers to confidently integrate AVB/TSN into products and ultimately successfully pass AVnu Certification tests. These contributions help accelerate a broader ecosystem of AVB/TSN devices across various markets. Our mission is to help facilitate that ecosystem and certify devices for interoperability,” says Gary Stuebing, AVnu Alliance Board of Directors President.

A pioneer in open source software and a founding member of the AVnu Alliance, HARMAN has been actively contributing to its working groups and projects since the Alliance’s formation. This most recent contribution aims to enable and provide for a fully functioning, viable open source software stack, essential for the development and testing of Ethernet AVB products.

“At HARMAN we believe that open source software is the foundation of developing innovative technologies,” said Dean Miles, Senior Vice President, HARMAN Connected Services. “We are



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proud to contribute to the Open AVB project with our advanced open source software. In doing so, we hope to bring the global auto industry more closely with the larger networking community and to make modern vehicle networking technology more quickly available to the connected car.”

### **About AVnu Alliance**

The AVnu Alliance is a community creating an interoperable ecosystem of low-latency, time-synchronized, highly reliable networked devices using open standards. AVnu creates comprehensive certification programs to ensure interoperability of networked devices. The foundational technology enables deterministic synchronized networking based on IEEE Audio Video Bridging (AVB) / Time Sensitive Networking (TSN) base standards. The Alliance, in conjunction with other complimentary standards bodies and alliances, develops complete solutions in professional AV, automotive, industrial control and consumer segments.

### **About HARMAN**

HARMAN ([www.harman.com](http://www.harman.com)) designs and engineers connected products and solutions for automakers, consumers and enterprises worldwide, including connected car systems; audio and visual products, enterprise automation solutions; and connected services. With leading brands including AKG®, Harman Kardon®, Infinity®, JBL®, Lexicon®, Mark Levinson® and Revel®, HARMAN is admired by audiophiles, musicians and the entertainment venues where they perform around the world. More than 25 million automobiles on the road today are equipped with HARMAN audio and connected car systems. The Company's software services power billions of mobile devices and systems that are connected, integrated and secure across all platforms, from work and home to car and mobile. HARMAN has a workforce of approximately 28,000 people across the Americas, Europe, and Asia and reported sales of \$6.4 billion during the 12 months ended September 30, 2015. The Company's shares are traded on the New York Stock Exchange under the symbol NYSE:HAR.

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