AES67 & AES70: WORKING TOGETHER FOR INTER-OPERABILITY

The Control & Connectivity Protocols That Bridge The Gap Between AoIP Standards

While Dante is now the most prevalent Audio-over-IP (AoIP) technology found in audio installations, there are other media networking technologies in the arena, and a desire from customers to occasionally interconnect multiple different systems. In recent years, manufacturers in the sector have cooperated on establishing technical standards that ensure a basic level of compatibility. These standards are known as AES67 and AES70. All Focusrite Pro RedNet hardware complies with AES67 and AES70 where appropriate. This short primer article introduces both standards, and busts some of the myths surrounding them.

What is AES67?
AES67 describes a set of rules and protocols that establish the connectivity of AoIP devices so that, when connected to a common network, they will be able to exchange audio data. AES67 is a relatively narrow standard — one that focuses purely on the passing of audio between various different AoIP protocols — that leaves significant latitude for manufacturers to implement high-level functions appropriately for their particular customers. In other words: while two systems connected using AES67-compatible equipment will be able to pass audio, the raft of other functions that an AoIP user might want to implement (such as remote mic-pre gain, channel activation, routing, etc) are not accommodated. This means that while all AoIP hardware that conforms to AES67 will be compatible at a basic network level, specific functions implemented on one device may not be compatible with apparently similar functions on a device from a different manufacturer.

AES70: The Control partner to AES67
AES70 is often seen as intimately linked to AES67, but in reality they are two distinct standards and need not always go hand in hand. While AES67 defines the basic level of AoIP network interoperability, AES70 more specifically defines protocols for network monitoring and configuration including functionality such as the creation and deletion of signal paths and control of signal processing. In AoIP installations consisting of hardware from just one manufacturer, compliance with AES67 and AES70 is likely to be somewhat of a moot point. However, with an increasing number of audio hardware manufacturers introducing AoIP enabled devices, the interoperability that the two standards ensures means that mixed-protocol and mixed-manufacturer installations are viable.