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Tracking Live For Indie Vibe

BY JANICE BROWN

NEW YORK—Most bands don't have the luxury of weeks to record in a high-end studio, nor do they necessarily want it. Indie was once a subculture, but now the indies and the "indie-majors" make up the majority

of clients for most recording studios. And many of these artists are choosing—for budget, aesthetic and workflow reasons—to track their albums live off the floor.

In indie hotbeds like Brooklyn, recording studios are growing to accommodate *(continued on page 25)*

Once: More, With Feeling

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A Broadway remake of the Oscar-winning indie film about star-crossed musicians, *Once* took home eight Tony Awards this year, including Best Musical. Clive Goodwin discusses the audio aspects of the show—and what it's like to win the Tony for Best Sound Design of a Musical.



Network Interoperability Approaches Reality

BY STEVE HARVEY

Audio networking offers some distinct benefits and, where the protocol offers TCP/IP compliance, integration with the IT infrastructure. But while current audio and video networks are already being integrated with IT infrastructures, with AVB (Audio-Video Bridging)

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and OCA (Open Control Architecture) nearing completion, true interoperability may not be far away.

Scalability is a significant benefit of networking, allowing a system to be expanded relatively inexpensively. In an *(continued on page 41)*

Plug-In Palette Proliferation

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Engineers are increasingly seeking out processing plug-ins that move beyond the modeling of legacy analog gear. Flexibility is one search criteria, as are plugs that can add capabilities not available in the analog market, such as iZotope's RX 2 shown here.



LIVE AT BEN'S: Presonus hosted an invitation-only Nashville event at Ben Folds' Ben's Studio—formerly the historic RCA Studio A. The guests were treated to a performance by "one take" singer Brianna Tyson (download it free at prosoundnetwork.com/aug2012), effectively demoing the new Presonus ADL 700 tube channel strip, a StudioLive console, the Studio One 2 DAW and the newly added direct interface to the online marketing engine, Nimbit.



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Audio Networking

(continued from page 1)

installation such as a large sports venue, said Bradford Benn, applications expert at Harman (harman.com), “Before, where it wouldn’t have been financially feasible to put an amplifier all the way out in the leftfield concession stand, because there’s already a network drop at the point of sale, they can do that very cost effectively.”

Benn continued, “You can now sprinkle audio throughout the venue; you just need a network drop. And you don’t have to worry about tying back to the same building ground, because it’s isolated. Also, the fact that you don’t have to debate which cable is which—phone, data, POS, network audio—by having it all in one network vendor’s basket, you can lower some of your labor costs and the time spent to troubleshoot.”

The ease with which a networked audio system can be deployed has Phil Wagner, president at Focusrite Novation (focusrite.com), excited about the new Focusrite RedNet line of products, which is positioned to primarily address the recording market. RedNet’s core technology is Audinate’s Dante, which includes Dante Virtual Soundcard (DVS), allowing input via Ethernet of multichannel audio directly into any computer running native recording software.

With RedNet, “You have two Ethernet lines—one for control and one for audio,” said Wagner. “We can get 128 channels in and out on a PCIe card. For people using native workstation software, we think this now is a professional audio networking system—an I/O system—which will allow them to get in and out of their computer.”

RedNet currently includes a series of four 2RU boxes that offer various I/O options with A/D conversion, including mic/line inputs, with a fifth—a Pro Tools bridge—scheduled for early 2013. Linked together and to the computer via Ethernet cable, the system can be quickly and easily deployed by a one-man operation at a remote location, for example.

“The cost to implement Ethernet is one-hundredth what it would be for multicore audio cabling,” noted Wagner. “There’s so much less copper cabling, [plus] time savings on engineering and implementation. You could put that money into more gear, better gear or budget savings overall.”

There is already a user base that could benefit from RedNet, Wagner believes: “A lot of manufacturers are offering Dante, and we’re fairly sure that anybody using their products would have a recording application. I



A network of over 500 channels of Audinate’s Dante provided interoperability between manufacturers’ systems at BC Place in Vancouver, where Peavey MediaMatrix NION DSP enabled the creation of custom control and confidence monitoring interfaces for the Lab.gruppen PLM amplifiers located in the catwalk.

think a lot of recording doesn’t take place because it’s difficult to implement. If you just plug in Ethernet off your console and plug in your computer, you’re going to have the DVS aspect of Dante and record straight off it, if you have software that supports that.”

When rolling out Dante, Audinate (audinate.com) announced that the protocol would become AVB compliant as that standard became more defined, offering licensees an easy path to the nascent standard. AVnu Alliance (avnu.org), the organization of consumer and professional electronics manufacturers developing AVB, has announced that it will begin testing products for certification in August 2012 [see page 36], and demonstrated working technology at InfoComm2012 across devices from 15 audio companies.

One of those companies, communications specialist Riedel (riedel.com) introduced an AVB product that allows intercom panels to be located remotely on an IP network. “It’s just another option that you can use to connect your panels back to the frames, but in the future, you could have an entire infrastructure based off these cards,” said Jeremy Lommori, a system engineer with the company.

Riedel’s mainframes already allow a degree of decentralization, he continued. “Now, with AVB, we could see that being decentralized even more, where you could potentially have two, or eight, signals on a remote node all tied back on an AVB-capable network, and they would all interact with each other. You don’t need to have a central frame anymore.”

Although AVB is still an emergent

technology, its implementation in Riedel’s new product already offers certain benefits, he added. “From a cabling perspective, it’s much easier and much more cost effective. From a quality perspective, the audio bandwidth is remarkable. It truly sounds like the standard AES connections that we’re using today running over CAT-5 or coax directly back to our frames.”

As for integration into an IT network, said Lommori, “Two of the leading switch manufacturers, Lab X and BSS, are already providing AVB compliant switches. Other manufacturers are already deeply into developing AVB compliant switches with their launch to follow soon.”

With Dante, which is fully TCP/IP compliant, noted Kevin Ivey, general manager, Peavey Commercial Audio (peavey.com), “You use standard switch gear, which saves money and allows you to retrofit audio transports into existing networks.” But, he cautioned, “It would probably be wise to segregate that to a subnet to keep the audio traffic away from other traffic on the network.”

Peavey, also an AVnu Alliance member, has additionally developed various Dante-based products. “A lot of jobs now are retrofits into existing systems, and when we began to look at some of the new important mid markets, there’s a value proposition in being able to use some of the existing switch gear,” commented Ivey.

“One of Audinate’s claims is that zero configuration is needed, and in most cases, that’s true. There is room on the transport for control messaging. And with the interoperability that’s possible with Dante, we’ll be able to exchange audio transport

streams pretty readily. We see Dante as a pathway for us to AVB.”

In contrast, AVB will run over any network architecture and offers guaranteed quality of service (QoS), but, noted Ivey, “While it can run on standard switchgear, you’ll need dedicated AVB switches in order to be able to get all the benefits of AVB.”

AVB’s promise of interoperability is attractive, according to Ivey, who also noted, “I think that consumer electronics will probably be the first major market to adopt the interoperability of AVB because it makes it very easy to bring new consumer electronics components into the home or business and immediately play well with one another, whether they are audio or video.”

He also noted, “One of the things about AVB that’s being worked out right now is that there is no provision for a control architecture, which has spawned a couple of projects to find a control standard to pair with AVB.”

The OCA Alliance, an organization founded by nine pro audio equipment manufacturers, announced in June that it had completed the OCA 1.0 system control and monitoring standard specification. An architecture rather than a protocol, OCA brings to fruition a concept that was first worked on two decades ago with AES24.

According to an alliance press statement, “OCA is not a media transport technology, and does not replace evolving media transport standards such as IEEE AVB. Instead, it is intended to complement such standards by providing a reliable and rich system control environment.” (oca-alliance.com)