

# AIMS's Showcase Theater Brings IP to the Masses at NAB Show

BY CLIVE YOUNG

LAS VEGAS, NV—Taking over all three halls of the Las Vegas Convention Center, the NAB Show is a massive undertaking for exhibitors and attendees alike, but while there is gear to check out as far as the eye can see, education plays a strong role in the show, too. Underlining that fact, the Alliance for IP Media Solutions (AIMS) used this year's NAB Show to host its IP Showcase on the exhibition floor in the Central Hall.

Designed as a one-stop destination where visitors could learn about unlocking the full potential of IP for real-time media, the booth's offerings including an all-IP production room built out of gear from participating AIMS members. Also, one of the busiest locations in the booth was the IP Showcase Theater. Over the course of the show's four days, the micro-venue on the side of the booth, seating roughly 20 people, served up 45 presentations and panels, featuring 56 speakers in all. Each discussion, which ranged in length from 20 min-



Across the four days of NAB Show, the IP Showcase Theater hosted, recorded and broadcast 45 presentations by 56 presenters discussing IP installations and technologies.

utes to a full hour, dished on IP installations or IP technology based on and in support of the AIMS roadmap.

The theater was a crucial part of the AIMS booth, and not merely for the fact that it was educating professionals. As part of the larger booth, it also demonstrated networking ecosystems—open standards like AES67 and SMPTE 2110-30—working together.

"I'm doing a presentation tomorrow where I go through [the booth's systems] and say, you've got to use the right tool for the job," explained Patrick Killianey, network systems applications engineer for Yamaha Commercial Audio Systems, who designed the production system for the theater. "The whole booth is the AES67/SMPTE 2110 open standards

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## Over the Moon with Lana Del Rey

BURBANK, CA—Supporting her most recent album, *Lust for Life*, Lana Del Rey went all over the place on her recent concert jaunt, duly dubbed the LA to the Moon tour. Knocking out nearly two dozen shows in less than six weeks, the tour—her first since 2014—was a quick-paced production. Along for the ride was FOH engineer Kevin Madigan, who oversaw an extensive audio system from Sound Image (Escondido, CA).

Both Madigan and monitor engineer John Lammi looked after DiGiCo mixing consoles, with the house mix handled on an SD5, while monitorworld centered around an SD10. Having toured with the likes of David Gilmour and Crosby, Stills and Nash over the years, Madigan knows a bit about miking guitars, and for Del Rey's shows, he opted to use a Royer R-121 and adjacent dynamic mic to close-mic a Marshall 4x12 cabinet powered by a Metropoulos head. On a Vox AC30, he used a single R-10 centered on one speaker's dome. The guitar cabinets were positioned under the stage to keep the onstage level down.



Kevin Madigan with a Royer mic at his DiGiCo SD5 FOH console on the Lana Del Rey tour

"For the LA to the Moon tour, I'm using one R-10 and one R-121 specifically for miking the electric guitar cabs," he explained. "The R-121 is a long-term favorite, and the R-10 is new for me—it's on its first outing for this tour. I was excited to try it out after hearing about it from Royer and it's working out perfectly. It has a slightly brighter tone, which has been just right for use on a Vox AC30 guitar amp. When I put Royers on my guitar cabinets, what I get in the FOH system sounds like I'm standing in front of the amps; the reproduction is amazing."

The FOH system in question was

a sizable L-Acoustics K1 system. "We're not trying to get huge SPLs—quality is the key, and that was taken into account with the PA choice and system design," Madigan noted. "It really is a show that's very vocal-based. It's all about the songs and her voice. Keeping that in mind, I initially met with L-Acoustics' Dave Brooks [application engineer, touring liaison] and we came up with a system design that allowed us to maintain the feel of intimacy

in a large arena show. The coverage and the quality of the system make that possible. The linear reproduction of sound everywhere really helps people to feel as if they're quite close up, [going for] the idea that, sonically, no one ever feels far away from the stage. To achieve that, we take a lot of care and spend a good deal of time every day listening and measuring so that the sound is consistent all the way to the highest seats in the arena."

Making that happen was a system based around 14 K1s over four K2s as the main left and right hangs, with eight K1-SBs flown outside of the main

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### briefs

#### DPA Captures Celine at Caesars

LAS VEGAS, NV—Celine Dion has performed more than 1,000 shows at Caesars Palace, and these days, more than 40 DPA (dpamicrophones.com) mics are used nightly, including her three d:facto FA4018V vocal mics (plus four for backup singers), 19 DPA d:vote 4099 instrument mics, two d:icate 2011A on the snare, two d:icate 4007 omnis for tuning and more.

#### Shure Extends 600 MHz Rebate

LAS VEGAS, NV—Shure (shure.com) has extended its 600 MHz wireless rebate program through Oct. 31, 2018. The rebate offers up to \$500 per channel on the purchase of new Shure wireless mics and IEM systems accompanied by the trade-in of wireless systems operating in the 600 MHz frequency band (614-698 MHz).

#### OSA's Record-Breaking Purchase

LAS VEGAS, NV—OSA International recently became the largest rental house for Martin Audio (martinaudio.com) systems in the world when it purchased 248 Wavefront Precision Compact and Mini line array cabinets. The purchase also included system iKON amplifiers, iK42 and iK81, as well as the new SXH218 subwoofers.

#### Zebulon Lands in L.A.

LOS ANGELES, CA—Rat Sound (ratsound.com) recently designed and installed an L-Acoustics (l-acoustics.com) audio system in Zebulon, a new venue in Atwater Village. Performers are heard via an Arcs WiFo system with two Arcs Wide and one Arcs Focus per side. A pair of SB18i's are flown behind each array for low-frequency support, while a four-mix monitor system using X12 wedges is found on stage.

#### Savannah's Sound is DiGiCo

SAVANNAH, GA—The annual Savannah Music Festival in April hosted more than 100 productions across its 17-day run, and at all four of its major venues, DiGiCo desks provided by Atlanta-based Rock N Road Audio were used at both FOH and monitorworld.



## AIMS

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area, and our feeling is that open standards are a good addition to the solutions we have.”

As an inadvertent case-in-point, while the theater’s production system used Dante, its results were sent via AES67 to the video broadcast team, as every presentation was livestreamed on Ustream as well as recorded for use on AIMS’ social media and various online channels—a move all too appropriate for a broadcasting show, after all.

On hand at the IP Showcase Theater throughout the four days, Killianey not only designed the system for the theater but also was its production crew. That in itself was a challenge due to the hectic pace of the show schedule.

“One of the challenges here is that most of the time, we have presentations every 20 minutes, one person after another,” said Killianey. “As someone’s up there, you’re miking up the next one and saying, ‘What do you need? Where’s your PowerPoint?’ Oh, you need a sound connection—what do you have? And we need to be able to do that in five minutes.”

Being able to provide audio for presentations was no small task; with 56 presenters across four days, the variety of needs was endless. As part of the production system, the theater had an ASUS laptop that presenters could use for PowerPoint presentations, which, in turn, was connected to an Attero Tech unDUSB 2x2 Dante Networked Audio Interface. Nonetheless, many present-



Ensuring that every device a presenter brought along could be integrated into a presentation, the IP Theater made use of a Radial DiNet DAN-TX Dante Network DI at stageside.

ers eschewed the provided laptop, preferring their own gear. “What if someone walks up and they have a clip they want to use that’s on their phone?” said Killianey. “These things just happen—someone brings up a smartphone, an iPad, another computer. What if they bring their own laptop and they don’t have the USB connector size that we have?”

The answer was a Radial DiNet DAN-TX Dante Network DI/2-channel audio transmitter. “It’s basically a problem-solver for how I react to people coming up with things,” said Killianey. “People may have a different device or USB connector, but they usually still have a headphone jack—so we can get sound back into the system via the Radial box because it’s PoE Dante, and then it has RCA and 3.5 mm inputs, so anything that someone walks up with, I can connect with it—I just plug into the Radial and all those levels are taken care of. I haven’t been able to overload it, either. I’ve used them in other shows;

I don’t work for Radial, but their DI boxes sound amazing.”

When the DAN-TX box wasn’t acting as a consumer electronics-to-Dante Rosetta Stone, Killianey still was putting it to use between presentations: “I have used it just for background music—I’ll bring my iPad and plug it in. When you do that, you have to put [the iPad] in airplane mode so it doesn’t dip in to announce ‘You’ve got an email!’ and come back up,” he laughed.

Because the theater required only one-way audio conversion (“It goes to Dante and then I just feed it to my mixer”), its counterpart DiNet DAN-RX Dante audio receiver was unnecessary, but being that the NAB Show is about broadcasting, the receiver was still a topic of discussion. “We don’t have the output box here,” said Killianey, “[but] with broadcast events, I’ve seen a lot of camera guys really want that, because the system they’re on is Dante [using] Sound Devices or something like that for location recording. They say, ‘I need to

jack it into my camera so I can get the audio. Just give me a mix—I know you’re going to multitrack it over there, but give me a mix over here.’—and they get that thing [the DAN-RX box], which has an XLR, and go right into the camera. If the camera’s not Dante, now it’s no big deal, and it’s PoE so they don’t have to run another power supply out there.”

During the four days of the NAB Show, the IP Showcase was a bustling stand—a true accomplishment, given the number of exhibitors on hand and the fact that it was located at the very back of the Central Hall. Anyone who wanted to learn about AIMS or take in a lecture at the IP Showcase Theater had to make a concerted effort to get there—and they did, in droves.

“People are coming to see this,” Killianey confirmed, gesturing at the theater, which was still full as he spoke, 20 minutes before the show closed for the day. “It’s been busy! I took a photo at 10:30 during the first presentation—which is a little early for people to get all the way to the back of the hall—and it was full, and they jammed the aisle as well.”

As a result, the overall message of the IP Showcase was heard, both figuratively and literally, loud and clear. “They need to learn about open standards,” he said, “but also people are coming here to see [the IP Showcase and the presentations] because an open standard does not stand alone. There are other things that you have to integrate with, and this shows how to do that.”

Alliance for IP Media Solutions (AIMS)  
aimsalliance.org

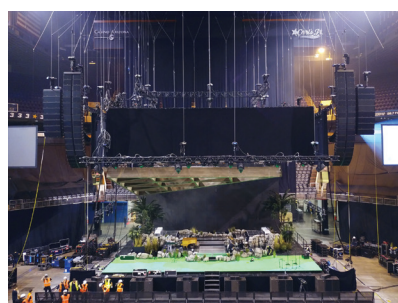
Radial Engineering  
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## Lana Del Rey

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hangs. In addition, 18 SB28 subs were ground-stacked in groups of three across the stage in a cardioid configuration. “I know that sounds like a really large number of subs for a show with this kind of intimate, vocal-based music,” Madigan said, “but while the flown K1-SBs allow us to get really even sub coverage thorough a large arena, the main use is actually about cancellation of sound on the stage itself.”

As he explained, flying the K1-SBs alongside the main K1 hangs created a cancellation node on the stage that went up to about 200 Hz. “So the LF intensity on the stage is much, much less, which makes things so much more comfortable for the artist. Whether you’re standing in the highest reaches of the arena or on the stage,



L-Acoustics’ K1-SB arrays (far left and right) were used to minimize LF intensity on the stage.

you’re hearing different aspects of what the K1-SBs are doing. Turning them on and off makes a marked difference in overall sound consistency in the room and results in a large drop in sound energy on the stage. It’s really the best of all possible worlds.”

Keeping the energy on stage low was crucial to maintaining the mood of the show and lessening the need for vocalist Del Rey to push—a necessity given the numerous shows in the whirlwind tour. Also aiding the quest

for a quiet stage was the presence of personal monitors—the musicians all wore JH Audio Roxanne and Sensaphonics earpieces, and those, too, were affected by the Royer guitar mics.

“We’re trying to capture an authentic sound for our guitarist, who is using in-ear monitors,” said Madigan. “In-ears can be hard sounding, but when I put Royers on the cabinets, the in-ears sound and feel much more organic, less pointy and hard, which musicians really appreciate. We’re also running these offstage amps quite loud, but with the R-10 and R-121, the high SPLs have proven to be no problem for either mic.”

Every tour is a learning process, offering the audio team opportunities to take away insights that can be applied to the next gig. With the Del Rey tour, Madigan noted he found ways to use what he’s learned over the last eight years working with the various members of Crosby, Stills

and Nash, and likewise came away from the chanteuse’s production with new ideas: “[CSN] certainly prepared me for this gig. CSN is kind of the ultimate training ground for mixing important vocals in music, and it stands you in good stead for about anything else. There are really quite a number of musical styles represented in Lana’s music, and the audience is completely different. It’s a real pleasure to be able to be around her music and crew, and take on board new things and new ways of hearing and seeing.”

Royer Labs  
royerlabs.com

L-Acoustics  
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Sound Image  
sound-image.com

Lana Del Rey  
lanadelrey.com