

Sports venues turn to a wealth of AV solutions to help them lure back fans that might prefer to stay home and watch on the couch. **By Dan Daley**

HE OWNERS of major league sports venues have been facing ever-stiffer competition from larger TVs with sharper resolution for the better part of the last decade or so. Sports on television have brought enhancements like 5.1-channel surround sound and Super Slo-Mo to big living room screens for viewers whose cars are parked for free in their driveways and whose beers are as close as the kitchen.

In that time, most professional sports leagues, including MLB, NASCAR and

even the iconic NFL have seen a decline in fan attendance. In the NBA, several teams, like the Sacramento Kings, Milwaukee Bucks and Detroit Pistons had major attendance drops in 2017. The NFL saw attendance drop 3 percent last season, while NCAA football saw a 10 percent drop from 2008's all-time high attendance.

Much of this is driven by the upward-spiraling cost of attending big-league games — the average cost for a family of four to attend a Boston Red Sox game is \$360.66, a New York Knicks game \$676.42, and a Chicago Bears home game over \$685.

"We're trying to enhance the experience so fans have something to look forward to," said Mark Ouwerkerk, senior national sales manager for events and entertainment for Christie Digital, during a breakout session on AV integration at sports and entertainment venues during AVIXA's 2018 AV Executive Conference. "It's about engaging fans and holding on to them as long as you can."

Can AV help turn the tide for the multibillion sports industry by elevating the

value of the in-venue experience? AV integrators who regularly work on these venues say it can.

"AV is going to be an enormous part of the venue experience," says Bill Dorsey, founder and chairman of the Association of Luxury Suite Directors. That includes through the emergence of esports and expected proliferation of gaming and sports betting thanks to a recent Supreme Court ruling that allows states to decide if they want to allow it.

"The experience has to drive the whole thing," said Justin Wood, sports practice director at Dimensional Innovations. "Having the groundwork laid now to help them plan for what they don't know they want to do later is critical." That includes parking near the stadium, security before you enter and ordering food from your seat when you get inside.

Steppin' Out

It's become possible now to go and have a great time at an MLB or NFL stadium without even watching the game itself. Inside the stadiums, fans increasingly find sports bars that look more like high-end steakhouses.

For instance, the Miami Marlins' stadium houses an outpost of the Clevelander, the iconic South Beach hot spot, complete with full bar and menu, bottle service and a swimming pool (with attendants and towels), as well as a great view from left field of the transparent Marlins bullpen, and where management has the option to keep the post-baseball party hopping until 3 a.m.

The PA extends into the pool area, and the club's broad frontage gives swimmers a clear view of the stadium's three large display boards.

A few miles away at the Miami Dolphins' Hard Rock Stadium, an outpost of another South Beach disco, LIV, will hold up to 800 people who drop \$325 or more to be able to enter through the players' entrance to the stadium and sit in one of its eight 15-person cabanas.

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-STUART REYNOLDS, DIVERSIFIED

It has a dance floor and a DJ spinning pre-game, halftime and post-game, and has hosted performances by some of the world's top DJs. The cabanas' picture windows that look down on the field almost obviate the need for video screens, but there are plenty of 40- and 60-inch displays that are tuned to other games around the league.

Over at the Atlanta Falcons' new Mercedes-Benz Stadium, host of the recent Super Bowl LIII, the concourses' sports bars are equally spiffy but offer AV amenities such as tight-pitch LED video walls that keep patrons apprised of on-field activities without having to give up a spot at the well-padded bar.

Once inside the luxury suites, the cos-

seting becomes even more intense, with 4K-ready displays that can follow the action on the field or at any number of other matches taking place in other venues elsewhere.

At the Atlanta Braves' SunTrust Park a bit to the north, fans might have a harder time getting to the bars and the suites inside the stadium because of all the bars and restaurants that surround the venue.

But once inside, they'll find not only the expected big-screen video but also a PA system zoned to provide a semblance of surround — sound effects can be made to move from section to section, approximating on a very large scale when that home theater system can do in the living room.

One of the most radical examples of how AV has been able to remake a sports venue with the goal of increasing attendance is found at Daytona Rising, the reimagination of NASCAR's flagship Daytona International Speedway venue on Florida's Space Coast.

From what had been at best described as frumpy and redolent of high-octane gasoline fumes, Daytona Rising was remodeled into a five-story-tall, \$400 million motorsport palace in time for 2016's Daytona 500 season opener.

The venue is now closer to one of the better college football stadiums than a stock-car track, and at 101,000 seats holds about as many fans. Massive escalators called "injectors" move those huge crowds to their seats efficiently, including into over 60 new luxury suites.

The spacious concourses are fitted with nearly 3,000 loudspeakers in a distributed audio system and nearly 1,500 Samsung and Peerless-AV 47-inch LCD screens, in an effort to make the experiences between the stands and the concourse as seamless as possible. Over 250 miles of Cat-6 and single-mode fiber-optic cable distribute GB-level broadband throughout the venue.

Destination-Type Experiences

What all this means is that sports venues are creating destination-type experiences around the games they host, which has the effect of broadening their appeal even as they add new revenue streams.

"These are the kind of things that you can't get watching the game on television at home," says Mark Graham, associate





A 44-x-28-foot display at Detroit's Little Caesars Arena looks as big as a good-sized living room TV from 100 feet away.

principal at AV systems consultant WJHW.

In addition to making the suites more business friendly with distributed audio systems and couches, Diversified worked on creating the Home Run Porches at the Arizona Diamondbacks' Chase Field in Phoenix, where \$500 will get a party of four onto party decks that promise 20.5-inch HDTV screens built in to the counter



Sports venues are realizing the importance of creating a venue experience that goes beyond the game experience, and AV is a big part of that.

top for every four seats.

"There are different levels of fans — families, groups of friends out for a day, business associates looking for a place conducive for deal making, and of course the die-hard fans of the teams — and the venues are now trying to create environments that appeal to each of them, and they're using AV to do that," says Stuart Reynolds, director of sports and live events at *CI* 2016 Integrator of the Year Diversified.

"People want to stand and socialize during the game, and these kinds of environments are good for that," says Reynolds. Diversified also encourages robust broadband in sport venues, acknowledging that visitors are not going to stop using their mobile devices at the game.

"Connectivity used to be a luxury," said Dorsey. "Now it's a necessity. The thing is it's an afterthought for a lot of owners."

Developing apps and a live social presence that incorporates the game and unifies the fan with the team are ways to cement patron engagement once they're inside the venue.

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"Now, they're using them to engage with

customers on their way into the venues, on their way out, and long after they're home."

AV Enhances Fan Engagement

Venues and events are expected to produce \$27.7 billion in pro-AV revenue in 2018 worldwide and grow at a healthy rate in the next five years, according to AVIXA's 2018 Industry Outlook and Trends Analysis Report (IOTA).

"It's an exciting space for AV providers to work in. Stadium executives are deter-

mined to bring the wow factor to outdo other stadiums, so they are motivated to embrace advanced technologies like augmented reality, virtual reality, and interactive displays. However, their investments in standard AV technologies, such as lighting, audio, and security and surveillance, take priority," said Sean Wargo, AVIXA's senior director – market intelligence.

Nearly 100 percent of venue executives AVIXA surveyed plan to upgrade their audio equipment in the next 12 months. Audio investments are likely intended to ensure fans can hear announcers during the game, which fans listed as its most important AV role.

Video displays and video projection are the next most popular AV purchases, according to AVIXA research. Survey results indicate investments in digital signage will increase the most significantly over the next year.

"You have to start the conversation [about AV] at the beginning," said Jill Monaghan, senior project designer at Generator Studio. "How are we using technology to give fans an experience they can't get anywhere else?"

Justo Gutierrez, director of sound and AV for sports and live events at Diversified (which installed the Meyer sound system into Hard Rock Stadium's LIV, among other stadium clubs), says AV is being asked to play a crucial role in fan engagement when it comes to the pace of play, something even the NFL and MLB have addressed in recent seasons by speeding up certain aspects of the game, such as the amount of time between plays.



Companies such as Uplause offer interactive games, polls, social walls and more that enhance fan engagement via technology.

"It's definitely one of the reasons fan [attendance] is down," he says. "The games were getting slower." Home viewers could enjoy multiview replays of the action in the meantime, but fans in the stands often had little other than an organist's vamp to occupy them.

That's starting to be addressed by increased production of replays and other content created by venues' in-house production departments, says Reynolds.

"We've been installing and integrating more cameras than ever before, on mascots, on pylons — anywhere as long as the players can's trip over them," he says, plus feeds from the broadcast trucks outside, and routing those signals back to the venue's own production edit rooms where they're creating replays, player profiles and other "packages" similar to the ones that the leagues' own production and editorial divisions, like NFL Films, and the broadcast networks have been creating for years.

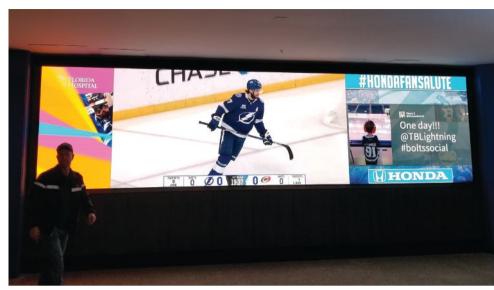
"These are ways for the fans in the venues to connect emotionally with the players. They can literally see them sweat, with high-def and now high-dynamic-range

Key sounds of the game, such as sneaker squeaks and backboard bangs, are being brought to upper seating areas through the PA systems. "It's the way to bring the courtside experience to every fan in the venue," says Diversified's Justo Gutierrez.

video on the big screens," Reynolds says. "There used to be maybe four cameras for in-house media content development in the past; now, we're putting in a dozen or more, paired with more server acquisition and replay power. And [the venues] are the ones asking for this."

As a result, integrators are also building larger production facilities as part of new sports-venue construction and major renovation projects.

Another area where live sports are beginning to more closely emulate the



Digital sigange, audio and video (both large displays and projection) are in high demand among sports stadiums.

broadcast experience is in sound effects.

An ever-larger array of microphones has let home viewers hear a near-cinematic soundfield of bat cracks and catcher's-mitt thumps, and as more leagues OK the use of wireless lavalier mics on players, everything from the grunt of a pitcher's release to bored outfielders singing to themselves or chatting with the announcers between plays.

Gutierrez says those same effects are slowly being eased into the live-sound PA mix in the bowl.

As arenas become larger, Gutierrez says key sounds of the game, such as sneaker squeaks and backboard bangs, are being brought to upper seating areas through the PA systems.

"It's the way to bring the courtside experience to every fan in the venue," he says.

While sound on TV and in the venue may compete on relative volume, the competition between television and live experiences is probably most apparent when it comes to video.

"We are chasing the broadcast television experience," says Brent Stevens, national sales manager for professional sports at Daktronics.

But as the pixel pitch of large displays reaches the 4mm level and tighter — Daktronics installed 2.5mm and 4mm displays in the Bat & Barrel, a public gathering spot overlooking right field that was formerly the private Metropolitan Club at the Minnesota Twins' Target Field — it's keeping

up with television as that medium crosses the 4K threshold.

That's something that mega video displays in arenas and stadiums are technically capable of but don't need, at least yet, he says, as stadium content developers focus on enhancements like Ultra HD to improve the quality of the signal on large venue displays.

"When you're sitting 10 feet from a 65-inch television at home, it looks amazing, but you get the same effect 100 feet away from a 44-x-28-foot display with 6mm pitch, like the one we put into Detroit's Little Caesars Arena," Stevens asserts. "What you're not getting at home is the excitement of being there."

Ultimately, that's what sports leagues and venues are counting on to turn the tide of dwindling attendance. Venue design continues to emphasize the spectacular, such as the Mercedes-Benz Stadium's oculus or CenturyLink Field's deafening acoustics, even as television is experimenting with object-based audio that will let viewers change announcers. The battle between live and broadcast may turn out to be the most interesting game to watch of all.

"People like being part of a community," said Wood. "As long as we provide great experiences, it will always beat the couch."

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