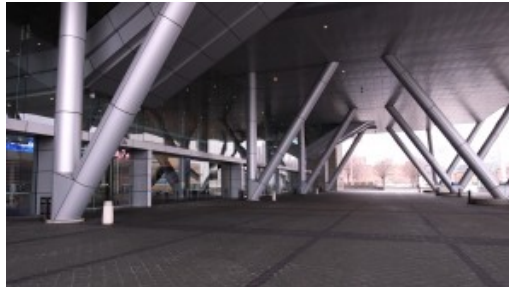


Teamwork Brings New Digital PA System to Boston Convention Center

Communications Design Associates and Adtech team up with Harman to deliver Dante solution that makes messages easier to understand.

May. 06, 2016 — by [D. Craig MacCormack](#)

When you're trying to deliver crystal-clear messages to thousands of convention attendees, often at several different events at the same time, across more than 500,000 square feet of space through a public address system, there's a lot that goes into the solution.



The Boston Convention and Exhibition Center is home to a new digital audio network.

That was the dilemma facing Tom Streit, audiovisual systems manager for the Massachusetts Convention Center Authority, last year when it was time to upgrade the creaky system inside the Boston Convention and Exhibition Center with a digital distribution network.

Streit and his team, including electrical systems project manager David Wilson, interviewed several potential vendors for the massive project before deciding the simplest solution was also the best one. Over the next few weeks, Sudbury, Mass.-based integrator [Adtech Systems](#) raced against the clock to make sure the Dante system was in place before the BCEC was crushed with a flurry of shows.

"With this new system in place, the building operates simply," says Streit. "We can send audio from any input to any output." The big part of the job, says Streit, was upgrading the network to 10 GB, a move that gives them a redundant network and "peace of mind."

"The beauty of having our own network is we're not riding on the enterprise network or the show network," says Streit.

PHOTOS: [Boston Convention Center's New Digital PA System](#)

Wilson called the new setup "an easier system to use" with "fewer clicks to get to things."

In addition to delivering digital audio to the exhibition space, the new system is tied in to about 80 meeting rooms and a mini-ballroom that holds as many as 600 people.

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Communications Design Associates of Canton, Mass., led the team that built out the 6,144-channel [Dante](#) network across the BCEC, one of the largest exhibition centers in New England. The system routes announcements and background music across 45 locations. CDA, which worked with the convention center authority on the Hynes Convention Center in Boston, was able to significantly cut cable around the building through this installation, which replaced a system installed in 2001.

CDA and BCEC officials interviewed nine manufacturers before choosing Harman for its new PA system, says project design manager Joe Patten.

The BCEC system includes 47 Dante-enabled [Harman](#) BSS Blu 806 digital signal processors, each acting a routing hub and programmed with BSS BLU link software to communicate across each Blu 806 and Crown amplifiers distributed throughout the facility.

Each Blu 806 hub includes a minimum of 10 busses to bring in zoned or all-call paging, music and voice evacuation information. The network is strategically partitioned, allowing the convention center

to light up certain zones of the network depending on the size of the event.

“The nuts and bolts of this network is the ability to route audio from anywhere to anywhere without re-engineering the network,” says Patten. “The Boston Convention Center is moving low-latency, high-quality audio to places they couldn’t reach easily before. We ripped out 17 bundles with split-distance limitations and replaced that with a single Cat6A cable for each link that can support 128 channels with the bandwidth efficiency they required. Channel capacity has been vastly increased, with the ability to hit 97 distinct spaces across the convention center.

“It’s a working building with events and we had to work with that schedule,” he says, noting some parts of the building were closed off to the installation team because of events in the building.

That vast reduction in cable and flexibility in switch choices equated to a significant cost savings for both the integrator and the end user.

“We also reduced the size of our conduit by more than 75 percent, and then slash the time to pull cables – one link versus 128,” says Patten. “And our long-term costs are minimized when we inevitably expand the network, which could potentially extend to hotels and other venues near the site.”

Harman supplied the equipment, configuration documents and training, with Adtech doing the installation and pre-testing on-site. The pace of the installation was frenetic, but the benefits are obvious now that it’s completed.

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The installation was done in August and September 2015, about six months later than originally planned because of complications with the state contract.

“We had two dark weeks to turn over the old system,” says Joe Tagliaferri, project manager at Adtech, who worked closely with account manager Charlie Crane on the job. “We racked and stacked the new equipment next to the old to help us move more quickly.”

As Adtech installed the system, audio technicians Howard Rieter and Glenn Pearson closely checked each rack to make sure everything sounded the way it should and worked effectively, says Tagliaferri. The most challenging part, he says, was putting together a schedule that accommodated for the hectic pace Streit, Wilson and other BCEC staffers kept with shows constantly in and out.

The team met every week and tried to look three weeks ahead to give everyone a better ability to plan for what was coming, says Tagliaferri. That was an important piece of the process in such an active location, he says. Harman staffers programmed the new audio system, with Adtech assisting.

“A lot of advanced planning went into this,” says Patten. “New equipment was put in as the old equipment was removed, and there’s a new IT backbone in each closet. We don’t typically have the luxury of space to be able to have the new and old equipment together like that.”

The next phase of improvement at the BCEC is upgrading the speaker system throughout the building. Tagliaferri says he’s hoping Adtech will be part of that project too, although nothing has been finalized on that yet. CDA is working on the design for a fire/life safety and hearing assist system at the convention center, says Patten.

Here’s a look at how the new PA system helps those who run the Boston Convention Center do their jobs more effectively:



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