





The three Megastructures included walkways between each area.

his is the fourth year we've designed and produced the Amazon Web Services [AWS] re:Play party. The event has grown from around 6,500 attendees in our first year, to over 25,000 this past year." So says Corey Johnson, CEO of the Los Angelesbased creative studio Production Club. re:Play is the afterparty to AWS re:Invent, a 42,000-attendee conference for developers in the cloud computing industry that took place in Las Vegas November 27 — December 1. Production Club designs, plans, and produces every facet of the re:Play party including the site, stage, and various features.

"re:Play is the final event on the last night of the conference, and it's the single opportunity for the entire conference to come together and celebrate," Johnson says. "The party took place in three connected structures, one featuring a massive stage production and dance music DJs, as well as two others with fun, analog, return-to-childhood activities like a large ball-pit, inflatable slides, and other physical activities. We also had several digital, interactive-technology-based activations," explains Production Club's

COO Vivek Srinivasan, who along with Johnson shared the role of executive producer.

The guests at the event are more varied than one might imagine. "Developers represent the majority, but there are a lot of attendees from other disciplines, so we need to ensure that there is something fun for everybody to enjoy," explains creative director and production designer Miguel Risueño, also of Production Club.

"We went through a lot of different iterations of what the site was going to look like, the best guest experience, and the best event design possible," Johnson says. "We landed with a three-structure configuration. Each structure hosts one of three environments: a music party, a return-to-childhood activities zone, and the tech-forward immersive experiential side." For these, North Las Vegas-based AG Light & Sound provided its propriety Megastructures, as it has in the past. Scott Bokowski, technical director for Production Club, says, "The red structure was 380' long by 200' wide, the green structure was 420' long by 200' wide, and the blue structure was 340' long by 200' wide, all interlinked with one another. We had connector tents



Pyrotecnico had a total of 19 lasers inside of the laser dome.

every 20' between the structures, allowing people to walk throughout all of the structures." For the event, there were 272,708 sq. ft. of temporary structures that used three million pounds of concrete ballast.

"Data Flow" was the artistic theme that Production Club aptly utilized for the conference; it was visualized, both graphically and physically, using vertical elements. Risueño explains, "The 'verticality' principle we defined for re:Invent's art direction was also the driving force behind the spatial design for the re:Play party. We used it as a construct to create and organize vertical forms throughout the space: the main stage, entry lounge, signage, scenic truss on the Megastructures, automation, and several other custom-designed activities like the bounce castle or the light-interactive installation were driven by this feature." The trussing had a more-than-utilitarian function, he adds: "With truss, you do have a limited way of creating shapes. In our productions, we try to create organic layouts that ideally come across as not being constrained by budget or load-in time, which, obviously, is a challenge. For this event, we shaped the space to make the audience

not feel like they were inside of an ephemeral production site. We wrapped the truss of each Megastructure in a different material: fabric/cardboard for the red, Corriplast for the blue, and light/metal for the green. It felt like visiting three caves with synthetic stalactites."

The red structure "had a bounce castle, an inflatable slide, dodgeball, and more," Risueño continues. "It was the competitive one, more reminiscent of a stadium that gets you pumped and excited about playing." The bounce castle was a 28'-tall custom activity designed by Production Club and fabricated overseas. "Essentially," Srinivasan says, "it was a giant inflatable castle with a moat around it. The moat was populated with 240,000 balls. The castle itself was basically like a tiered inflatable setup that people could climb up and then ride down an inflatable slide into the ball pit."

The inflatable slide was over 20' at its tallest point. "We have a theory that we are all kids for all our lives," Risueño says. "We all have work and responsibilities, so we kind of forget our innermost child until we play with our kids or our nephews or our pets. We tried to use that mentality when

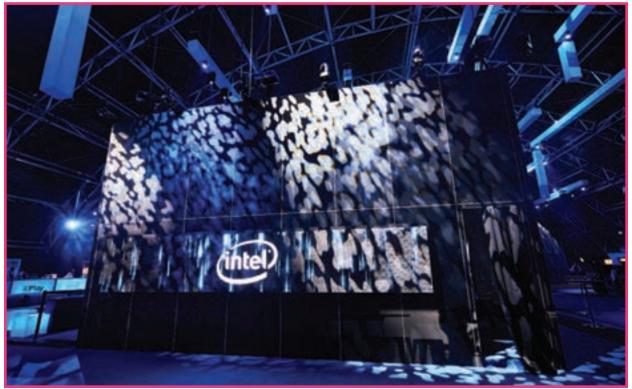
designing this party. It's very weird to find somebody who doesn't enjoy having fun at this party; it's just a matter of how you present the fun, so you can get people to be more uninhibited. You think, who wants to play badminton at an event? And you'd be surprised. A lot of people were playing dodgeball, badminton, mini golf, climbing inflatable walls, or diving under ball-pit moats."

While the red structure was all about physical activity, Angel Vazquez, a Production Club concept artist, says "Conceptually, the blue structure was more reminiscent of the digital world and video games, more exploratory in nature. It was Internet-like." The area also included several bars and food areas. Corey FitzGerald, of Silent House Productions, who served as lighting designer, says, "It was a low-key vibe space. The room was very subtle, but we did have a little activity to keep the party feel going. We used blue, cyan, and white, occasionally, for seating and lighting at the bar and the food areas."

The green structure was home to the live performances. Risueño says, "We were bored with the fact that every festival and DJ show has a huge stage, but nobody really leaves the DJ booth. So, we decided to not have a stage in the green structure." Instead, EDM artist DJ Snake performed on a 6'-by-12'-by-30' stylized monolith. "We placed the truss and the video directly on the ground to give the impression of these pieces of truss coming out of it, like a sandworm."



The slide portion and the ball pit of the inflatable castle in the red Megastructure.



The exterior of the interactive Intel Activation in the blue Megastructure.



There were 20 automated trusses using CyberMotion Cyberhoists in the green structure.

Lighting

The lighting design was a collaborative process between Risueño and FitzGerald. The latter says, "This year was a lot more collaborative after we did The Chainsmokers' tour and a couple of other projects together. Essentially, Miguel tells me what he wants, I draw it up from a lighting perspective, and we run the show as far as staffing, cueing, and building the looks. A huge number of people come together to make this show happen."

The red and blue structures "intentionally had a very different vibe," FitzGerald notes. "The red structure was the gameplay/activities center with bows and arrows, dodgeball, the castle, the ball pit, and so on. The blue structure was more of the chill vibe with video games and a laser installation. It was more of a blue/white look, while the red structure was a red/amber look. So you walked into the tent and felt like you were in a different space."

Both structures featured static hanging trusses. Lighting in the red structure was focused on the action. "Each attraction or installation had its own set of lights that were illuminating it and doing some fun chases," FitzGerald says, "It kept the energy going."

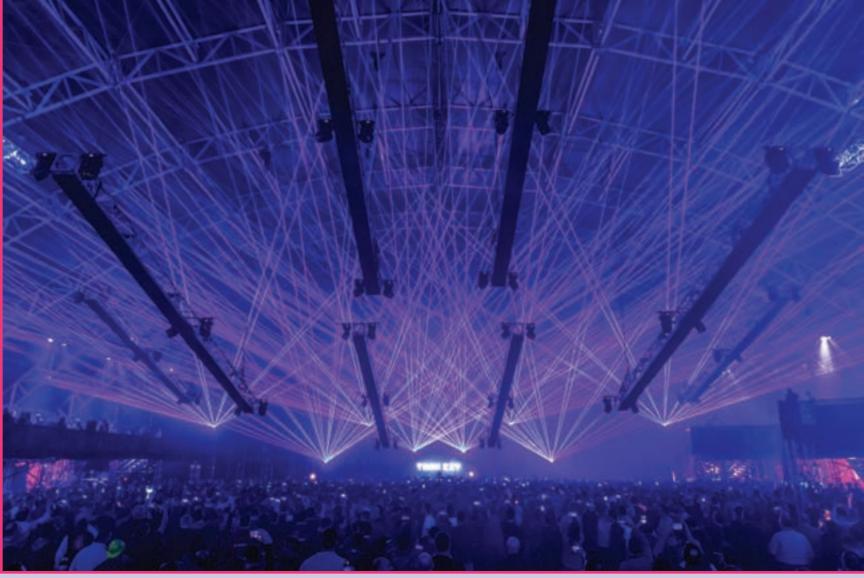
The designer adds, "We used a lot of [Martin by Harman MAC] Viper Profiles, [Martin by Harman Mac] Quantum Washes, and some [Martin by Harman MAC]

Auras for the truss lighting. We had some texture, but it was a lot of layering of different types of instruments." The programming reflected the activities inside the tent. "It had movement, and it was very much a party feel," he says.

In the blue structure, FitzGerald says, "The laser dome was the biggest attraction. We lit the outside of it; we put some texture on it and washed it with a color to make it look interesting." Again, the lighting rig featured Mac Viper Profiles, Auras, and Quantum Washes. "The truss setup was similar in every room, according to what we wanted the visual of the truss to look like," he adds.

"In the blue structure," Srinivasan says, "we did a custom activation that was, essentially, an interactive piece: Attendees could walk inside onto a floor with sensors. A grid of lights overhead corresponded to their movement. This was a custom piece that we created, designed, and developed in partnership with Intel, who is the party's main sponsor."

"The LED floor was filled with sensors," Risueño adds. "We read them and sent that information for tracking—how many people were inside, how they were moving, how fast they moved, how aggressively they moved, and how many times they walked over the spot, and so on—in order to feed our custom lighting system. For this, we used an MA Lighting grandMA to assure that if something wrong hap-



Kvant lasers from Pyrotecnico on the main stage, with Team EZY.

pened, we could have a backup, and recover it."

Above the custom activation, Risueño says, "We had a 13' x 13' grid of [Elation Professional] ACL 360is. It was a little futuristic. Depending on your movement, the lighting system was generating different animations and effects. The purpose was to make the audience explore their own physicality through the use of light; it was fun."

The lighting system in the custom activation was made with in-house software that Production Club coded; the backbone of the project was Unreal Engine, a suite to create games and interactive media. "We worked a few days developing the full lighting and video rig in Unreal Engine for virtual reality, so we could get a feeling of the responsiveness of the system without the need of all the gear at the studio," says Risueño. Making things virtual was critical, since part of their content creation team is in Spain and they needed to be able to test the system. He adds: "We package it on an app and we put in it on the FTP [server]. This version was 35MB, so tiny that we can send it all over the world through a cell phone connection. We can finish the software and, one minute after, they can

start working on it on the other side of the world."

The green structure was filled with automated trusses hung from CyberMotion Cyberhoists. "We had ten automated pieces over the stage, and ten over the audience, so a total of 20 trusses with motion," Risueño says. "Then we had another 28 motionless trusses distributed throughout the Megastructure at different heights, so a total of 48 flown lighting trusses." The trusses on the stage were broken up, he notes: "As an aesthetic resource, we described vertical imaginary lines on the stage and filled them intermittently with truss, leaving empty space between certain parts that were only filled with aircraft cable for structural stability. Between the negative spaces, we added [Philips Vari-Lite] VL6000s." Between the stage and the air, there were 95 lighting trusses in the green structure.

"We used VL6000s as our beam fixture for the stage area," Risueño says, "It's a great fixture with a lot of punch. Just imagine a beam on steroids; it's crazy and crispy." Forty-two VL6000s were located around the stage area. Risueño notes, "We also had a few VL4000 BeamWashes [22 total]. I'd say the workhorses were the

VL6000 and the VL4000."

Also used were 74 GLP impression X4 Bar 20s. "We love the X4 Bar as a fixture and Corey Fitz loves them as well," Risueño says. "He knows how to do a bunch of cool things with it. It's a bar fixture, but it has a zoom in it, so you can create a collimated beam and a very concrete kind of light." Working with these were 174 Elation Professional ACL 360 BARs. "We created the vertical looks with the X4 Bars and the ACL 360," he adds. "Last minute, we added a full row of [Chauvet Professional] Nexus 4x4s RGB blinders. We added 42 of them behind the stage for a full backlight." The lighting rig in the green structure also included Mac Quantum Washes, and TMB Solaris Flares.

The scope of the project can be seen in the quantities of gear used: 98 Mac Viper Profiles, 496 Mac Auras, 56 Mac Quantum Washes, 54 Solaris Flares, 56 Nexus 4x4s, 56 Robe BMFL WashBeams and 60 Claypaky Mythos. Also featured were 861 Elation EPAR units [for truss toning], 145 Philips Color Kinetics ColorBlast TRX units, 102 Chroma-Q Color Force IIs, 58 Chauvet Professional Freedom Par Quad-4s, 34 Elation Professional Platinum Beam 5R EXTREMEs, and 14 ETC Source Four Lekos. Well over 3,000 fixtures were used in the three structures, upwards of 44 miles of electrical cable, and over 4.5 million watts of power to run the event. Power was provided by CAT Power.

The lighting rig was provided by the Brea, California office of 4Wall Entertainment. "We worked directly with Todd Roberts, who is their director of live events and touring," Srinivasan says. "He was the perfect person for the project. This was a gigantic system and a huge order with a lot of complexity, and he was able to work hand in hand with us and drive the entire project home."

Programming in the green structure was done by Brian Jenkins on an MA Lighting grandMA2 console; Sam Paine and Celine Royer handled the red and blue structures. "I oversaw everything and worked with the programmers to make sure it was right. I tried, as much as possible, not to touch a console," FitzGerald says with a chuckle. Five grandMA2 consoles were used on the project.

The green structure also featured as lounge/food areas. "It was a very ambitious space design," FitzGerald says, "but we were way ahead of the curve. We lit the party areas very generically with basic color washes, which we could tie in with the stage looks. If the stage went blue, these areas would go blue, and so on. We mapped that out before the performances, and they followed along."

Video was also an integral part of the green Megastructure and was controlled via a Resolume Arena 6 media server. Risueño notes, "The approach we picked for video on this show was more complimentary." Production Club created the video content in-house; it was more textural than literal. "Our video direction was contemporary in nature and came in hand during the stage design

process," he continues. "The vertical video shapes asked for an experimental approach in which noise, textures, and generative media made the space feel more amorphous and contemplative than usual. This video style worked in sync with the lighting. We tried to be respectful and constrained in terms of the color we used. Sometimes we added accents of typography or icons but, mainly it was all abstract video." LED tiles, provided by AG Productions, were located primarily on the vertical trusses. "We created a visual dialogue between lighting and moving image where the elements interacted with each other as part of the musical performance," reports Max Nicklas, Production's Club video director, who served as VJ for the main stage.

Effects

Special effects, seen in the green and blue structures, were provided by Rocco Vitale, of New Castle, Pennsylvania-based Pyrotecnico, who says, "We did two facets of the event: the lasers and CO2 for the main stage, which was DJ Snake this year and the laser dome."

For the main stage set up in the green structure, Vitale says, "We had ten 20W Kvant Spectrum lasers and eight CO2 jets." Programming was done on Pangolin Beyond software by Pyrotecnico's Jesse Parker.

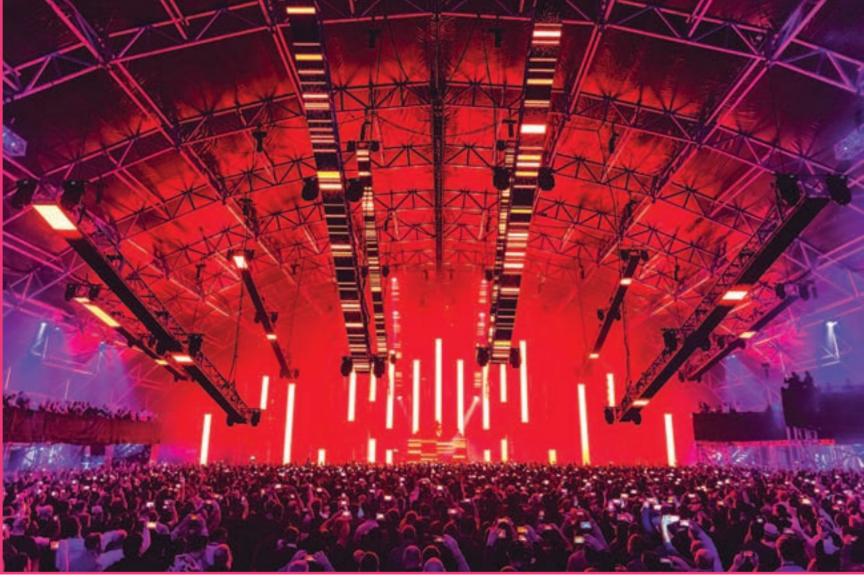
In the blue structure, Vitale says: "We put lasers all around the dome, and Derek Abbott, one of our programmers, created this planetarium-style laser show on the roof



A rendering of the main stage in the green structure, including horizontal and vertical trussing.

of the dome; it ran throughout the night. People rotated in and out, and it was very cool."

Gear included 15 Lightline Lasertechnic Excellent Burner lasers and four RTI NEO SIX RGB beam arrays. "The Burners are audience scanners; however, we did not do any audience scanning on this particular show. The



The render as envisioned in reality, with Team EZY onstage.

lasers were all aimed on the roof of the dome," Vitale says. All of the lasers were full color.

Sound

The front-of-house sound engineer and 3G Productions lead system engineer Julio Valdez is a veteran of three AWS re:Play events. "There is a lot of detailed information coming into us, like PDF files, CAD drawings, and descriptions of what's going on where before the actual event," he notes.

The red and blue structures were filled with ambient sound. Valdez says: "We had three separate DJs in the green structure, and, actually, two of them played off the same rig on stage." The show in the green structure started immediately. "The minute they called doors there was a DJ on the stage playing," he adds. In the green structure, Valdez kept the levels at around 100dB.

The loudspeaker rig in the green structure was comprised of gear from d&b audiotechnik: eight V8 and six V 12 cabinets per side for the main hang plus eight J-SUBS and eight J-INFRA subs, along with 15 D80 amps Valdez

says, "d&b, aside from the fact that it's a very greatsounding PA, is a very powerful rig. The amplifiers just sound phenomenal."

The red and blue structures had similar sound systems. "It was just guests playing games and ambient music playing in those areas," Valdez notes. "In each structure, we had four line arrays of V12 speakers each; no subs were needed in either of those structures." The line arrays were rigged directly off of the Megastructures, Valdez notes: "I've worked with the Megastructures many times, and they can hang a lot of things. They can do anything we need them to do."

Also, six d&b D80 amps were used for each of red and blue areas. Valdez explains, "Another beautiful thing about the d&b product, the D80 amplifier can re-clock the signal. I run a digital 96K signal, coming out of the Lake [LM44 digital audio processors], feeding into the D80s; once they hit the D80s, they can run another 300-plus feet. I had 300' going from the front of house to the stage, and then that spit up and went 200' to red, and the other part of the split went across the stage to take care of amplifiers on

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the other side. From there, it continued on another 200' to the blue structure. There were no delay issues."

Valdez adds, "The run for the red and blue areas were kind of far, so I had a pretty long multi-pin snake running in AES, and all networked together so that I could remotely control them with R1 [remote control software from d&b]."

He notes, "d&b provides a workflow that is unlike any other in the industry; it is complete from head to toe. You can get drawings from the client, get the information of the area you need to cover, punch that into d&b's ArrayCalc [software], punch in as many parameters you know—including temperature and humidity—and you can design a really great system. You can calculate many arrangements of cardioid or sub arrays and have a file to operate R1. It's very, very complete; when you get to that stage; creating controls to operate your PA effectively and efficiently makes your job easier."

To control all three structures, Valdez used a DiGiCo SD11, connected to a D rack. "The SD11 is the perfect choice because it has a lot of the same power as the SD5 or SD7," he says. "It has the same DSP, and is the same familiar user interface; however, it's a smaller package, given that we're only 12 channels worth of input for the total show, including the main DJ, the support DJs, and

RF mics. The SD11 also gives us really high-quality mic presets, a really high-quality user interface, and really high-quality faders but in a tiny package."

Valdez didn't use any outboard gear, because, he says, "The SD11 pretty much carries everything I need internally, software-wise. The SD11 does Waves, but I didn't use anything from Waves. In fact, I didn't use any plug-ins. There's no need to complicate things or demand any more from the console than is necessary. When you start enabling a bunch of plug-ins, you're slowing down the capacity of the console."

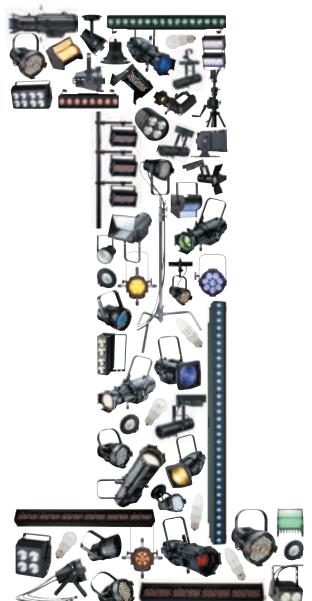
The microphone package was straightforward. "There were a couple of channels of Shure U4RD wireless mics," Valdez notes. This was the third Amazon Web Services re:Play event for Valdez, and planning made things easy. "There were no real challenges, other than the usual. Sometimes one department may back up for whatever reason due to technical difficulties, which is nothing out of the norm." Las Vegas-based 3G Productions provided the event's audio gear.

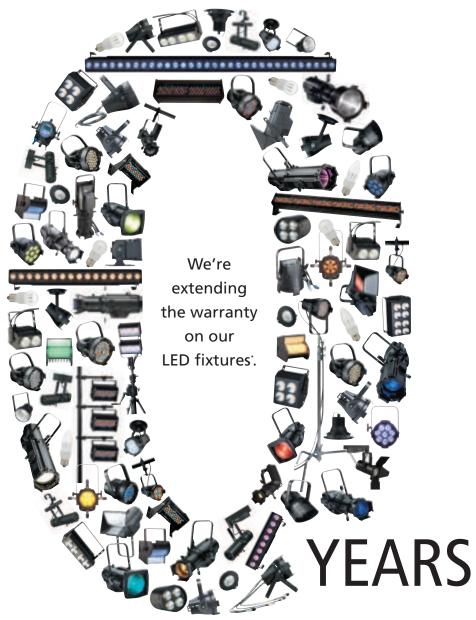
In the end, the Amazon Web Services re:Play event was a success, due to teamwork across a variety of disciplines, as well as creativity. "The guys at Production Club really know how to throw a party," Vitale concludes.



The blue Megastructure included the Intel Activation, laser dome, and video games.

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