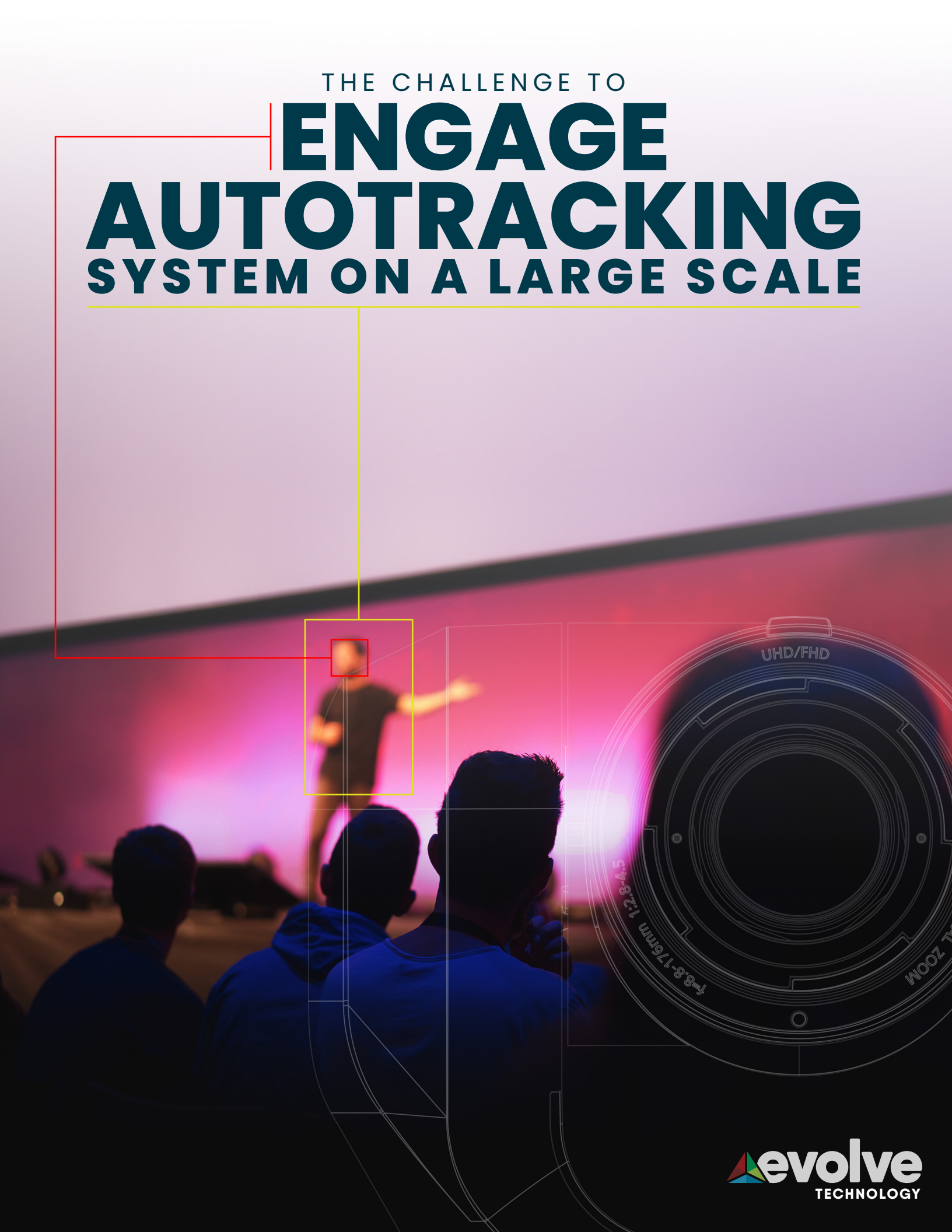
THE CHALLENGE TO

ENGAGE AUTOTRACKING SYSTEM ON A LARGE SCALE



evolve TECHNOLOGY

> Eli came out and did a bit of hand holding the first couple days and inevitably gave us a smoking hot deal on the whole set up.

John Economides,
Technical Director, AV Concepts

IT WAS A PROJECT THAT PUSHED THE BOUNDARIES.

VidCon's 2023 flagship conference in Anaheim drew 55,000 fans, social media influencers, video creators, and other industry attendees for the four-day trade show held in late June.

Event producer Galore Productions tasked AV Concepts with the responsibility of providing every piece of audio, video, and lighting for the colossal live event.

"We were doing up to 30 break outs, six mini stages, two large stages, and one outdoor stage," explained John Economides, Technical Director for AV Concepts of Tempe, Arizona.

When their client asked them to record every break-out session, Economides did the math. With nine break-out rooms for four days with one camera operator per room plus a staffed control room, that would add up to an exorbitant cost. He wondered if tracking technology might be more economical. But could it be scaled up? So far it was used primarily in schools and colleges with one or two cameras.

"I engaged a couple different companies about the possibility of using tracking technology on a large scale and it was only Evolve that had the willingness to set up the robust system. Elijah Loeffel of Evolve was super excited about the project and was eager to push the boundaries," explained Economides.

Evolve Takes the Risk

"Auto tracking is an emerging technology and though we had cameras and high-end computers that could do it, we hadn't used it to this scale before. But solving problems is what we do, so I was excited to have the opportunity to explore this," said Loeffel, Evolve's Director of Solutions.

The tracking system works by deploying cameras in each space where recording is needed and then networking them together to a central control station where operators view and control each camera. The camera follows the speaker through motion detection and facial recognition eliminating the need for an operator.

Evolve recommended the Panasonic Auto Tracking server coupled with the UE150 PTZ.

THE SYSTEM SPECIFICS:

Evolve UMS (Universal Media Servers) powering Panasonics AW-SF100/SF200 tracking software and UE150 PTZ cameras.

The AW-SF200 tracking server ran in the background on the UMS and automatically spread the tracking load across the servers with each one able to handle up to four cameras. The browser based remote GUI allowed connection and visibility to all cameras across the system as well as setting controls such as tracking sensitivity, facial tracking, presets, iris, and toggling tracking on/off.

3x Evolve UMS
-Quadro RTX 6000 GPUs
-Threadripper 32-core processors
-64gigs of RAM.
-10GB networking.

9x Panasonic UE150 PTZ
-1” 2160p native sensor.
-Multi-channel IP streaming
-High Performance Pan & Tile

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Elijah Loeffel ,
Director of Solutions

Evolve's Team of Experts Are

YOUR TEAM OF EXPERTS

"Eli did a lot of pre-testing making regular contact with us prior to the event to make sure everything was working and in order. His prep and onsite confidence led to a successful deployment," said Economides.

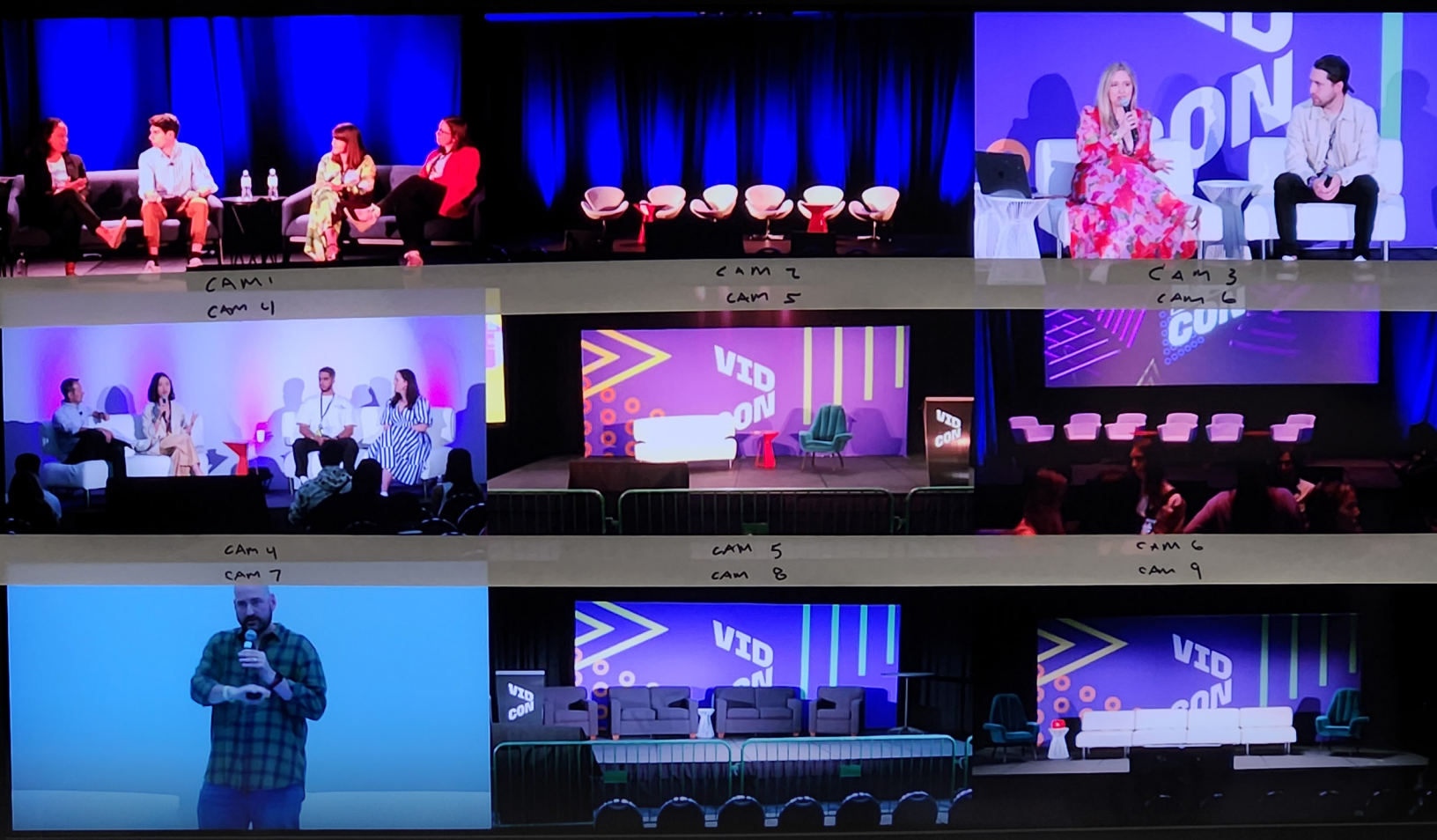
Loeffel and his crew executed two stages of testing in preparation for the Vid Con conference. They successfully engaged the system on a smaller scale in the Orlando office, followed by a full on nine-camera set up with three servers in Evolve's Las Vegas office where they thoroughly vetted the system and created workflow documents to use at the actual event.

"A live events environment is much more dynamic than the types of environments this system was intended for. We found it to be quirky yet powerful and smooth enough to mimic a live operator," added Loeffel.

How the System Worked

The numerous presentation rooms extended across two floors of the Anaheim Convention Center. Technicians utilized the in-house network infrastructure for connecting the cameras to master control. That room consisted of two operators, the rack of servers, PTZ controllers, and monitoring with records done locally in each room. Two techs were used to ensure that everything could be toggled and set in a timely manner when multiple sessions were starting simultaneously.

"I think one operator per 4-5 cameras is a good starting point," said Loeffel.



Unexpected Issues Called for

QUICK THINKING

“Once you deploy something in a live situation, you need to be ready to troubleshoot,” explained Loeffel.

The crew discovered that the live video feed monitoring built into the software was a very low frame rate making it difficult for the technicians to smoothly control the cameras and verify image quality for the nine break-out rooms. Loeffel and the techs worked around that issue by utilizing the UE150s built in ability to stream a low-latency video feed from the cameras into a laptop and building a nine window multiviewer.

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Elijah Loeffel ,
Director of Solutions

"While this tracking system was developed more for the classroom environment rather than live events, we were able to work around that and deliver what the client needed," said Loeffel who is working with Panasonic to improve the workflow.

In the end Vid Con loved the work and the cost savings. The tracking system was spot on in its framing and recording and Economides says they'll use it again.

"Evolve was very familiar with the cameras and once Eli delved into the software he was very comfortable deploying it. And this speaks to Evolve's willingness to know their product before using it to make sure it's a viable option," added Economides.

"We were very satisfied with Evolve's involvement with this project," said Justin Sykes, one of the two technicians who manned the control room, "Eli set up the server system and was there to answer any questions we had."

"Auto tracking is cutting edge and Evolve is committed to being on the forefront of this type of technology. While it's not in its final form, we want to offer it as a solution to the customers it will work for and then be there as it grows into a more powerful and robust service," added Loeffel.