Blaze Streaming Media Relies on Talon 4K-SC Encoder for Fast, Flawless Remote Live Production in the Cloud

Blaze Streaming Media specializes in video production for conferences, which includes live streaming, hybrid, and on-demand video solutions. The markets Blaze serves are the high-tech, corporate, and medical markets. Blaze is the company that AV vendors and conference organizers call when they need large-scale video capture and streaming from several stages and/or meeting rooms at once. Blaze operates with a small team that covers events all over the world. There are five video producers based in the United States, five overseas editors, and a global network of freelancers.

Like everyone else in the conference industry, Blaze was challenged to innovate during COVID. "We didn't have an Amazon Web Services account prior to COVID," said Blaze founder and conference video producer Joe Christensen. "During COVID, we taught ourselves IP video workflows for virtual events and produced events entirely in the cloud. When in-person events returned, we wanted to continue using IP video to improve the workflow for all the tasks that we need to do."

Challenge

Instead of recording locally and then uploading files as it had been doing, Blaze went searching for a contribution encoder that would make it possible to send video feeds to the cloud immediately.

"I was looking for an encoder that was 4K60P, which was nearly impossible to find," Christensen said. "It also needed to do SRT, and it had to be rock-solid. It can't just work nine out of 10 times. It has to work all the time. I wanted something that was fairly simple to operate and designed to be successful for exactly what we needed it to do."

In this workflow, a contribution encoder is the onramp to the cloud. Christensen knew that if he didn't have an encoder that could reliably send high-quality video to the cloud, then the rest of Blaze's efforts would be for nothing.

"Once we get that video into the cloud, we can kind of go crazy with it because you can do so many things," he said. "But if this one piece is not 100% reliable, then we might as well not do anything else because we would fail. If you do not trust the contribution encoder, you can't get into this style of video production."

Solution

Blaze found everything it needed in the Osprey Talon 4K-SC Desktop Video Encoder, a highly reliable, platform-agnostic encoder purpose-built for what Blaze wanted to do. Now the Talon is the linchpin of Blaze's production workflow.

With the Talon 4K-SC, Blaze gets rock-solid reliability and pristine image quality at frame-level latency as low as 16 milliseconds on the encoder and below 100 milliseconds on the entire workflow, depending on network conditions and the other equipment involved. And it all comes in a portable form factor at an affordable price.

The Talon is very simple to use and exceedingly reliable. Blaze operators can easily insert it into any environment, and it works every time, thereby unlocking all of the innovation and technology that's possible in the cloud.

Blaze manages and operates a fleet of more than 50 Talon 4K-SC encoders, which get transported just about every week of the year. Typically, the Talons plug into a corporate meeting environment, connecting to cameras and to computer feeds from PowerPoint and whatever the presenter is using as an aid — one Talon for each source. The Talons deliver feeds from each of those sources into the cloud, usually to AWS Media Connect and Nimble Streamer software media server instance. Once the video gets to one of those endpoints, Blaze can design workflows that pull the video and deliver it anywhere, including to multiple places at the same time.

Besides the reliability and spotless, low-latency video, the Talon's small size is a real asset for Blaze. At just 5.5 inches by 5.5 inches by 1.5 inches, multiple Talon 4K-SC encoders can easily fit in a suitcase — which came in handy for Christensen recently. He was producing an event in St. Louis and had several Talons with him. While there, Christensen was booked to get on a plane to San Francisco for another event immediately after the one in St. Louis ended, and there wasn't enough time to arrange for trucking. Christensen traveled with eight Talons in his luggage and showed up to the next event ready to go. The event was in San Francisco, but Blaze's client was in London and needed the edited video right away.

"I love that I could carry on eight Talons. I basically plugged in an entire show, and all of the backend moved from event to event by just pushing a button. It's just amazing," Christensen said. "All of a sudden, my client had a multiview in London, so she knew exactly what we were producing in San Francisco. And my overseas editor was producing the final edit and delivering it to my client in London moments after the event concluded. The size of the Talon allowed me to get that job done. Otherwise, it would have been a real struggle to get that much equipment into the event with that short of a window."

Finally, the ability to customize the experience using Osprey Video's SDK and API set the Talon apart from the competition. Blaze developed its own fleet-management app that uses the API. The app gives Blaze producers a dashboard through which they can monitor and control every Talon on the network for a given event from a single location.

Results

For Blaze, the Talon 4K-SC encoder has become the backbone of every production. It's not unusual for Blaze to cloud-record 30 meeting rooms live, with a 4K camera source and a 1080p computer source in each room. Because Blaze can now send video into the cloud immediately, it's possible to do things they could never do before.

Remote Production for Better Outcomes and Greater Efficiency: Blaze can do live production remotely. Instead of a director getting on a plane, staying in a hotel, and setting up equipment in a random spot backstage, that person can work remotely in a studio made for this type of work. Once an on-site video engineer plugs in the Talon encoder, it connects to Blaze's master control. From there, a remote director can monitor the event and run the show from afar. Employing remote directors saves the budget and produces a better product because that person is using a master control room built to cover a hundred events a year.

Remote Editing for Faster Turnaround: Blaze's overseas editors can start working immediately instead of waiting for someone to prepare and upload files after the show. Because of the time zone differences, editors can work on the material during what is nighttime in the U.S., and when producers come back in the morning, they see the progress.

One Person Across Concurrent Multicam Events: With Talon, a single video engineer can work across multiple events or stages at once. Take a recent event with five keynote stages. Instead of employing five directors and five shading technicians — one for every stage — Blaze used the Talon to bring all the video feeds to five remote directors and one remote shader. Blaze streamed the video live to the internet, and multicam direction and camera shading took place off-site.

Remote Monitoring: Blaze can monitor all video feeds in real time through the aforementioned custom-built app.
All of those benefits lead to substantial cost savings.

"I'm confident that I save at least 100 hotel nights a year, which usually comes out of my bottom line. That's not even counting the cost of per diem and airfare. So cost savings are really significant with IP video workflows that start with the Talon," Christensen said.

Future

Blaze has been using this workflow for a few years now, and its fleet of Talon 4K-SC encoders is still going strong. The encoders are designed to last 10 to 15 years, and with regular firmware updates, Blaze will be able to keep innovating as new features come online.

In fact, thanks to one of those firmware updates, the Talon now supports WebRTC. For an upcoming event, Blaze will create a silent theater product using WebRTC broadcasting to provide audio support to the audience in the room.

"Without a piece of reliable, low-latency equipment like the Talon, I wouldn't have even tried to earn that business," Christensen said. "The Talon is enabling a complete innovation in workflow in corporate audiovisual production that's just not possible without a dependable contribution encoder."

The plan is to add more Talons as Blaze's operation grows. Blaze is always looking for video engineers that love the challenge of working with large-scale IP video.