VIDEO

Pitt Studios

Case Study

Pitt Studios is an innovative joint venture between the University of Pittsburgh Athletics and Film departments. The athletics department will work to produce content for both the ESPN ACC Network and the on-site athletic venues. Additionally, the production control rooms will provide content and learning opportunities for the University's growing Film and Media Studies Program.

Pitt Studios is a 6,000 square foot space located within Petersen Events Center. The studio includes three production control rooms, two of which feature back benches that can function as self-contained or shared production environments for additional personnel. The project includes a multi-set studio with fiber connections to all major venues on campus.

Customer:
Pitt Studios
University of Pittsburgh

Country:
Pittsburgh, USA

The Challenge:

Pitt Studios required a versatile solution that combined all facility resources to support large scale events, as well as seamlessly being configured to simultaneously support multiple smaller events

• Scalable end-to-end solution for numerous athletic venues and events

• Future-proof design that included High Dynamic Range, 4K-UHD and ST 2110

• Flexible replay solution that could provide functions as simple as standard capture and reliable clip playback for live sports, studio shows, film and video productions

The Industry

The demand for collegiate sports content has seen growth due to technological and production advancements. Online platforms allow personalized access to viewers, this — coupled with the reduced cost of live event production — has allowed universities to create more content and distribute it directly to their viewers. The launch of ESPN's ACC Network will take full advantage of these factors and provide a distribution platform for ACC schools.

Rapid change in video standards, communication protocols, and graphic interfaces presents a significant challenge to building a production facility that will accommodate constant technological advancements.

The vision of Pitt Studios goes beyond fulfilling the ACC Network requirements and the needs of the university's online athletic presence. Students are now able to shadow events and run dark productions (simulate a broadcast) with the latest technology and equipment. This allows students and operators to get hands on experience with production workflow before being thrust into Live Production. Confidence built in these "shadow events" will carry over as these students become the next generation of operators.

Technology Solution:

Modular IP design to allow for dynamic resource management and maximum flexibility, while providing support for future standards

• 10G DreamCatcher 3080IPX-10G streaming network for instant access to any content on the network

• Content management and high throughput transcoding using the DC-MEDIA-SUITE platform

• Continuous loop recording across multiple DC-260ES capture nodes

• Logging and auxiliary operator surfaces provided by the compact DC-LITE-CLIENT systems

• EQX router for diverse signal ingest, including HD/3G/SD and UHD

evertz

The Challenge

The University of Pittsburgh, much like other ACC venues, needed to provide a scalable end-to-end solution for numerous athletic venues and events. Pitt Studios required a versatile solution that would combine all facility resources to support the largest events as well as seamlessly scale down to support multiple, smaller events simultaneously.

> We're focused on giving ESPN what they need in terms of supporting the ACC Network. The University has a grand vision...to become a dominant force in the region in terms of storytelling, filmmaking, and turning out people to work in electronic media.
>
> -Paul Barto | Associate Athletic Director
> Broadcast & Video Production

Pitt Studios required a design capable of withstanding near future trends within the broadcast space such as High Dynamic Range, 4K-UHD and ST 2110. Wanting to future proof their space, Pitt Studios invested in a solution ready to support these new formats and standards.

Along with technological advancements, Pitt Studios also had to factor in the ability to be completely flexible. From live sports and studio shows, to film and video productions, operators will be relied upon to understand the workflow for each type of production. Pitt Studios was pressed to find a flexible replay solution that could provide functions as simple as standard capture and reliable clip playback. This workflow however, needed technology that could be easily scaled to run fast paced replay for major sporting events.
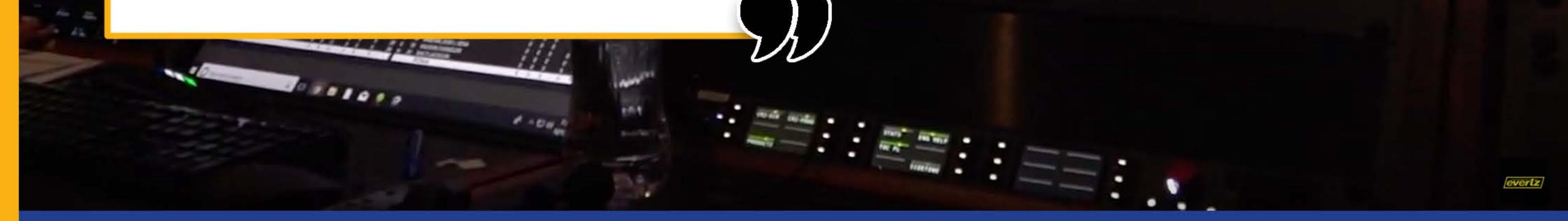
We did our due diligence when it came to replay, and through that process ... we saw something [in DreamCatcher™] that allowed us from start to finish on an event day to have basically a superior workflow. It makes pre-production easier and makes post-production easier, so what happens during the production is obviously a bonus.

-Paul Barto | Associate Athletic Director
Broadcast & Video Production

The Solution

To accommodate the varied production needs of the facility, Evertz' MAGNUM routing and scheduling interface was deployed. MAGNUM allows the studio engineers to configure shows days or even weeks prior to the event by scheduling the routing services for each event and allocating resources according to that day's schedule.

DreamCatcher™ has the ability to scale to fit the needs of each production, taking advantage of the combined resources across the facility. In the case of a single large event, Pitt Studios is able to pool resources across all three control rooms to provide a single large scale production. All of the facilities' DC-200ES capture servers provide continuous loop recording of any ingest channel. Through Evertz' 3080IPX-10G core each DC-PLAYOUT server and operator station has instant access to any recorded content on the network. In cases where multiple smaller events are taking place, the DreamCatcher™ workstations can be assigned and allocated based on the needs of each live production. This flexible resource allocation design provides cost savings as resources are no longer fixed per room or user.

To tap into and manage these resource pools, DreamCatcher™ operators are able to utilize the "Templates" widget within VUE. Pitt Studios' operators can preset DreamCatcher™ configurations for specific scenarios. Whether it be a basketball game, soccer match, or a studio show, operators can quickly access and configure their sources for their current event and then seamlessly switch to the next event within minutes.

To meet the high demands of Pitt Studios content distribution requirements the DC-MEDIA-SUITE combines the processing resources of every node on the DreamCatcher™ network to provide an unparalleled level of transcoding power. Pitt Studios can distribute metadata-rich content to post production and mobile users without delay in multiple codecs while the live event is in progress.

*The Pirates were the first to take it on.
The Penguins picked it up and we've had extensive experience with it at Heinz Field since the Steelers adopted it as well. So now there's this little family of DreamCatcher™ operators in the city. Hopefully we can create a group of users that go out and work in the field.*
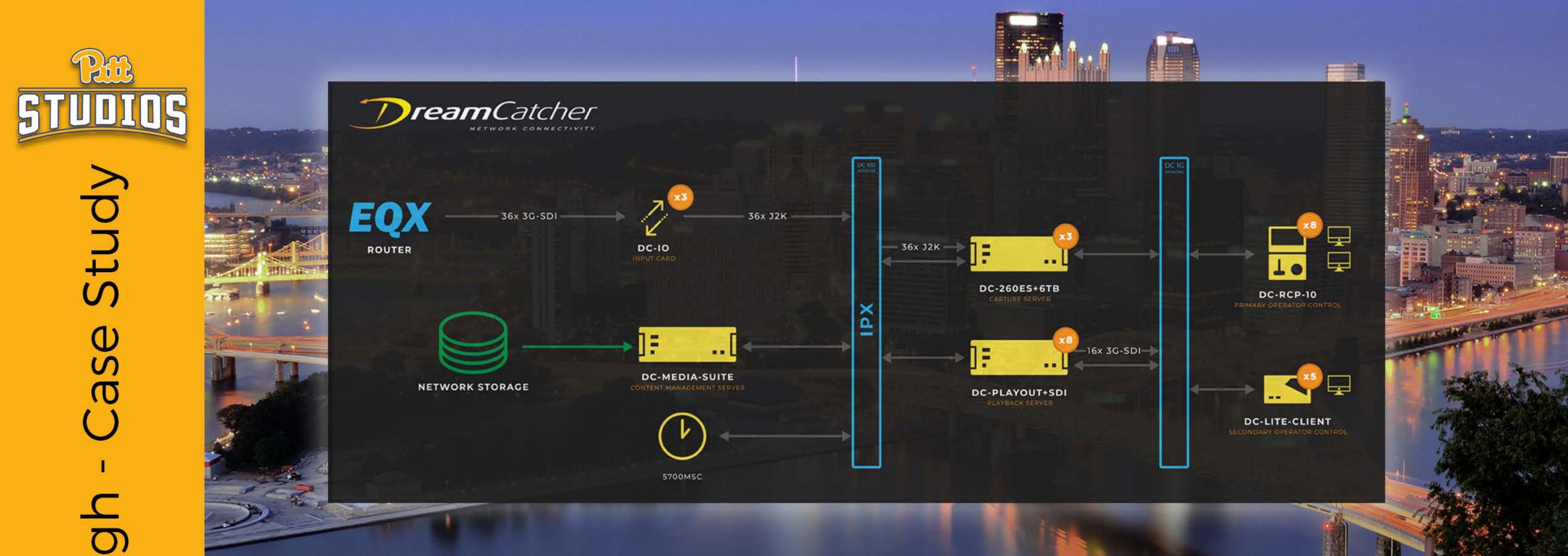
-Paul Barto | Associate Athletic Director
Broadcast & Video Production

The Technology

While the facility maintains a baseband end-to-end workflow, DreamCatcher™ sits amid a JPEG 2000 island. By investing in a DreamCatcher™ IP core, workflows became scalable and flexible to fit the needs of Pitt Studios' varied requirements. The modular IP design also allows a seamless upgrade path to accommodate new formats and standards.

By investing in a full 1080p DreamCatcher™ design, Pitt Studios can easily make the switch to 1080p HDR or 4K without any heavy lifting. High Frame Rate cameras can also be harmoniously integrated into this workflow.

DreamCatcher™ takes full advantage of VUE, Evertz' multifaceted user interface, allowing for simple and intuitive touch interface interactions. Utilizing this front end allows operators to decrease their learning curve and maximize their efficiency within the production.

A familiar controller design allows operators who are new to the system to rely on previous replay knowledge as well as provide a uniform experience as new operators gain proficiency on the DreamCatcher™ replay system.

1) EQX router and 3080IPX-10G provides for baseband signal routing over 10GE infrastructure.

2) DC-Media-Suite's integrated transcoding engine leverages 10GbE technology and DC-BRIDGE software to provide unprecedented access to content anywhere on the DreamCatcher™ network.

3) The rugged 3RU DC-PLAYOUT chassis supports playout of up to 8x channels of HD, 4x channels in 3G and 1x channel of 4K/UHD.

4) Multiple 3RU DC-260ES capture servers, with each supporting IP capture of up to 12x 3G/HD and 3x 4K/UHD with support for ST 2110 and ASPEN.

5) MAGNUM-ROUTER control systems for comprehensive distribution and VUE control surface platform and software for flexible production and control room interfaces.

VIDEO

Every single thing inside the DreamCatcher™ seems to be so well thought out. Operators coming from an EVS workflow, they can sit down and learn it easily and quickly. We've got kids that come in, they love the touchscreens. So, some operators don't use the touchscreens, some operators absolutely love them. There's multiple ways to get something done and I think that gives a lot of freedom to people and it allows us to employ a wide number of operators.

-Paul Barto | Associate Athletic Director | Broadcast & Video Production

The Future

Pitt Studios production facility provides a scalable platform that will meet the demands of every live production today while allowing Pitt Studios to grow with the changes in the broadcast industry for years to come. User friendly workflows and interfaces will provide industry-relevant experience to student operators for their continued education. This facility will demonstrate the high standards of the University's culture and academic message to potential students, all while maximizing the value of the University's athletic content.