



Location

Global

Challenge

The UCLA Football video-operations team needed to improve the quality of Pac-12 Networks TV channels that play throughout UCLA athletic facilities.

Solution

With Zixi Edge Point Servers at Pac-12 Networks and on campus, UCLA can leverage the open internet to deliver a live linear channel bouquet with consistent quality.

Benefit

Zixi enables UCLA to distribute high-quality streams of Pac-12 Networks content to UCLA athletic facilities for coaches and student-athletes.

Zixi, LLC

+1 877 494 9426

+1 781 890 9690

info@zixi.com

www.zixi.com

Zixi Helps UCLA Bring Live Pac-12 Networks Content to Campus

Known as “the Conference of Champions,” Pac-12 is an NCAA Division I collegiate athletic conference with 12 university members across the western United States, including schools in Arizona, California, Colorado, Oregon, Utah, and Washington. In 2012, the conference launched Pac-12 Networks to broadcast live and archived sporting events from each school. Pac-12 Networks consists of seven 24/7 networks: one channel for each of the six regions represented in the Pac-12 conference, and a national network that aggregates content from each region.

UCLA wanted to play Pac-12 Networks TV content on television monitors throughout the athletic facilities. This would offer coaches and student-athletes an easy way to watch live UCLA events, game reruns, highlights from previous seasons, and events from other Pac-12 schools. However, since UCLA is located in Los Angeles—outside the cable distribution area for several of the channels—the school needed a way to bring in the bouquet directly from Pac-12 Networks.

Problems with Poor Reception

Initially, a leading CDN pushed the Pac-12 Networks channels to UCLA. There, the feeds were distributed via encoded RTMP streams to networked set-top boxes throughout campus athletic facilities. Unfortunately, interference and varying network conditions caused the Pac-12 Networks channels to suffer poor quality and intermittent signal dropouts.

Previous Configuration

- Live linear channels sent from Pac-12 Networks to CDN
- CDN sent channels to THOR video encoder at UCLA
- Video encoder sent channels over campus internet
- Channels were picked up by Amino (Android) set top boxes at many points in the athletics building

The UCLA Football video-operations team frequently received complaints from students and coaches. While the Pac-12 channels were intended for around-the-clock streaming, most users reported that they simply couldn't get a signal, or that the content was too jittery to watch.



“Pac-12 Networks plays endless hours of Bruins games and analysis. It’s a point of pride for our students, and a way for our coaches to prepare. The last solution we used, it was standard practice to check the channels three times a day due to multiple problems; mostly channels freezing due to packet loss in the network.”

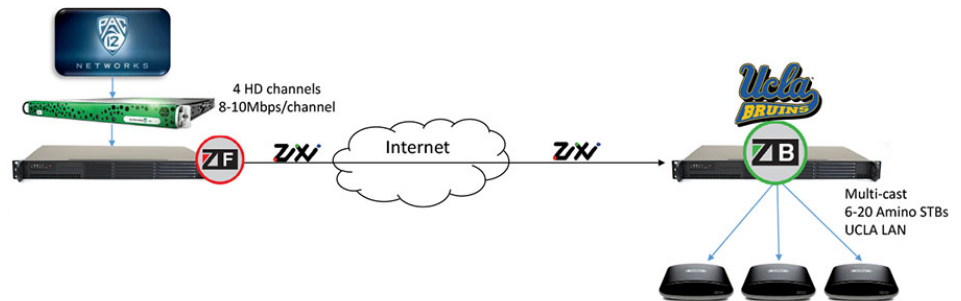
Ken Norris

Director of Video Operations
Football, UCLA



Zixi, LLC
950 Winter St.
Suite 3102
Waltham, MA 02451
USA
+1 877 494 9426
+1 781 890 9690
info@zixi.com
www.zixi.com

UCLA - Pac12 Network Feed Distribution on UCLA LAN Video Delivery



Zixi Moves the Ball up the Field

UCLA needed a solution for delivering Pac-12 Networks channels with consistent, “always up” quality. The video-operations team worked with Zixi ensure this essential aspect of working in the athletic facilities became a reality.

The Zixi Platform provides pristine quality video over standard internet connections, and can be configured for virtually any broadcast workflow. For UCLA, a linear bouquet of channels at the source needed to reach campus and arrive at set-top boxes across the university network. The Zixi team wanted to establish Zixi edge-point hardware at the source and on campus, and determined that Zixi Servers were the key.

Zixi Server is an Ethernet-connected, 1RU device designed to run the entire Zixi Platform. Zixi Servers are simple to integrate with existing infrastructure, and can be configured to bring Zixi to any stage of a broadcast workflow. These Zixi edge points can transmit to each other over any distance using the open internet. And Zixi’s proprietary content-aware error correction, bandwidth optimization, retransmission, and jitter management ensure rock-solid delivery of content in full broadcast quality at all times.

A Zixi Server appliance configured with Zixi Feeder was deployed to Pac-12 Networks. This put a powerful broadcast-over-IP solution into a single rack space on site. A second Zixi Server appliance running Zixi Broadcaster was installed at UCLA.

Now, Pac-12 Networks encodes the seven channels and sends the feeds to a Zixi Server on premise. That server uses Zixi Feeder to send the content in a Zixi transport stream to the Zixi Broadcaster Server at UCLA. The Zixi Broadcaster server at UCLA receives the feed and multi-casts the channels over the campus network to set-top boxes in the athletics facilities. With minimal setup, all Pac-12 Networks channels were suddenly able to reach coaches’ offices and televisions throughout the facilities error-free.

New Configuration

- Live linear channels sent from Pac-12 Networks to Zixi Server running Zixi Feeder
- Zixi Feeder sends content to Zixi Broadcaster on UCLA campus
- Zixi Broadcaster at UCLA sends channels over campus internet
- Channels are picked up by Amino (Android) set top boxes at many points in the athletics building



“Installation was surprisingly simple. On our end, it was just a single piece of hardware in our server room, but it had a major impact on the quality of Pac-12 Networks programming across campus.”

Ken Norris

Director of Video Operations
Football, UCLA



Zixi, LLC
950 Winter St.
Suite 3102
Waltham, MA 02451
USA
+1 877 494 9426
+1 781 890 9690
info@zixi.com
www.zixi.com

A Reliable Way to Watch

Using traditional network distribution, Pac-12 channels were unwatchable on campus. But with Zixi Servers in place at Pac-12 Networks and UCLA, games are now aired throughout the athletics facility 24/7 without issue. The UCLA Football video-operations team saw call volume regarding signal quality drop to zero. And because Zixi automatically manages bandwidth utilization, it's an easily scalable system. New coach offices and conference rooms can be set up simply by adding additional set top boxes and televisions.

Zixi is a solution I can count on in an 'extremely-high-pressure-to-succeed' environment. More importantly, I have not fielded any calls from coaches complaining about a channel being frozen, which is truly a luxury.

Ken Norris

Director of Video Operations - Football, UCLA

For more information, contact our sales team at info@zixi.com