



— CASE STUDY

Fan Controlled Football: Digitally Disrupting Spectator Sports

Overview

"How could you do that? That was the worst play call in the history of sports!" Seven years later, Cyrus Farudi is still miffed about **the unfortunate play that lost the Seattle Seahawks the 2015 Super Bowl**. They should have handed-off to Marshawn Lynch, the "best running back in a generation," he insists. "The Patriots never should have won that game."

After a lifetime yelling at TVs, Cyrus and his brother Sohrob found a democratic cure for the powerlessness of spectating. They've built a football league where the fans, rather than the coaching staff, call the plays. Fans also draft the rosters, vote on jersey designs, and decide close calls on replays. They call it Fan Controlled Football (FCF), and the second season ended in Spring 2022.

"What we're doing is reinventing professional sports for the digitally native fan," says Farudi. Through a handful of streaming platforms, spectators can watch the action, earn Fan IQ points and vote for plays while games are being broadcast. Between each down, fans around the world have about 15 seconds to vote on a play. They then get to see the play executed, in real-time, by the players on the field. The classic American football rules are modified a bit to accommodate the fan-input element, but it's a fast-moving game. "FCF is a technology-enabled mash-up," Farudi says, "of esports, fantasy sports, video games and traditional sports."

Fan Controlled Football league summary:



Live-streaming on four networks and platforms



2.2m viewers per week



50-yards, end zone to end zone



No kickoffs, field goals or punts



15 seconds for fans to vote for the next play



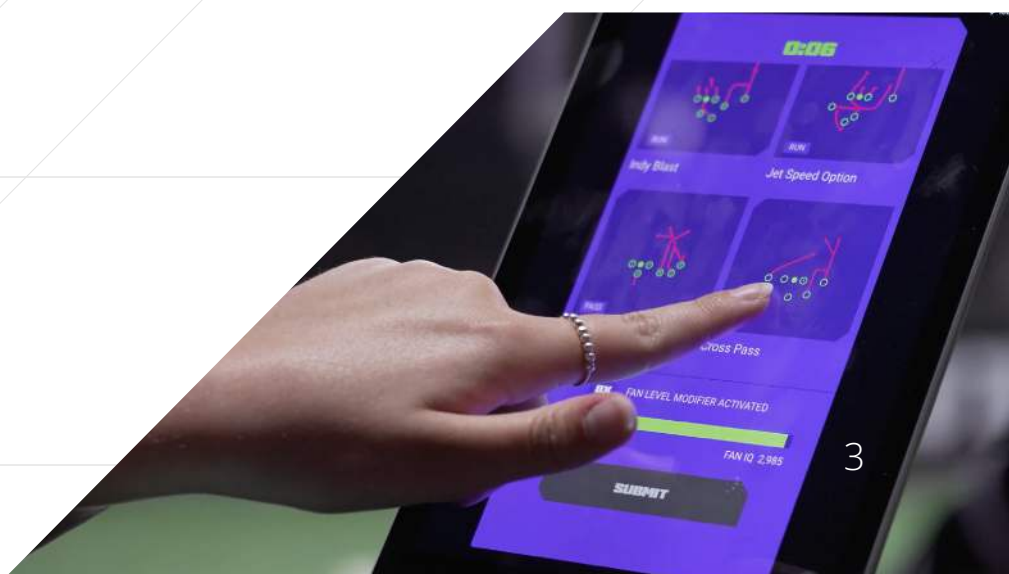
The Need

What's the tech stack that keeps this hyper-connected football game running on gameday? FCF runs a bespoke Play Call service on AWS, which ingests game situational stats in real-time. The stats are entered into a web app by an operator who monitors the game from the Game Ops booth at the venue. Based on the current game situation, the Play Call service selects the best plays to be presented to fans watching through the FCF app or via the FCF Twitch extension. The fans then vote for the play they want their offense to run while the Play Call service collects their votes and tabulates the result. When the vote clock expires, the play with the most votes is presented to a coach in the Game Ops booth via another web app. The coach then calls that play down to the players on the field through helmet comms and the team runs the fan-selected play. This entire process takes around 30 seconds. Throughout play, the coach can also trigger team power-ups, which fans can either approve or veto.

Meanwhile, a Game Admin in the booth monitors and triggers live Fan votes for replays, point after touchdowns and other fan-controlled decisions. The AWS services backend which powers the web apps in the Game Ops booth acts as the real-time "glue" between the digital experience and the live game in the stadium.

Underneath all this activity, the FCF team is producing a live coverage stream and pushing it out simultaneously to NBC LX, DAZN, FUBO Sports Network and Twitch. There's also a serious Wi-Fi infrastructure so that in-stadium fans, owners and staff can stay connected to all the digital elements of the game. It all has to happen fast and glitch-free to keep the game going. As Farudi puts it, "we can't have a game without the Internet."

When designing the network system that serves FCF's arena at Pullman Yards in Atlanta, one of CTO Steve Adler's main concerns was connection redundancy. For their first season, FCF used a 1Gbit and a 2Gbit connection which more than once were pushed to the upper boundary of bandwidth capacity. Adler wanted two diverse, 5Gbit lines coming from different locations to protect against a fiber cut outage. "And that is not necessarily an easy thing to find," he says. "People always question me: 'Isn't one 5Gbit circuit enough?' or 'Why do the circuits need to be diverse?' But people are digging all over the place, all the time. You've got to have two diverse circuits. Fiber cuts happen, equipment fails, power fails; you plan for the worst. We've even talked about putting in a third circuit: a nearby 5G tower."



For their growth, plenty of bandwidth overhead is of course necessary. But according to Adler, it isn't everything. While video is a bandwidth hog, most of the data that are getting pushed around to run the league are small, discrete chunks of information. Adler says his biggest concerns are about reliability and latency: "we have to have a circuit that's 100% solid, doesn't have a ton of hops and has low-millisecond latency."

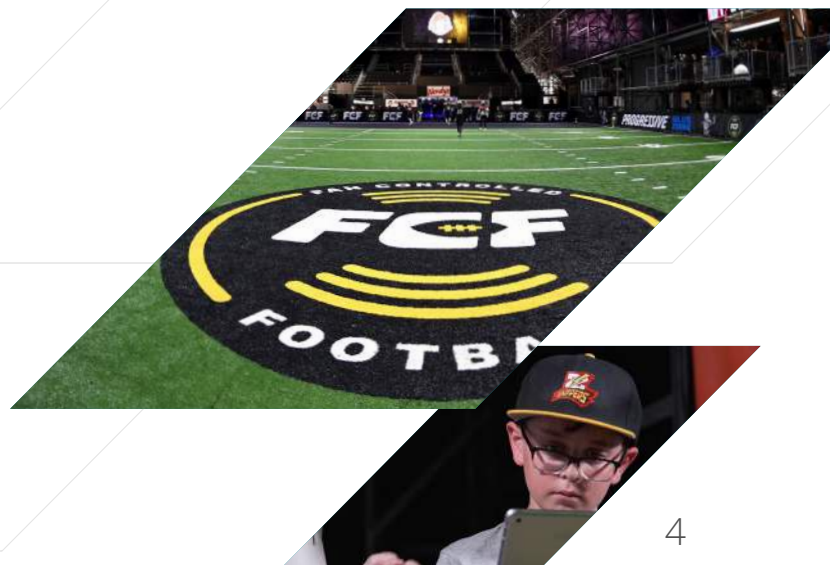
The Solution


In their first season, Fan Controlled Football put their tech stack and proprietary software through the ringer to make sure everything worked in concert. They learned what they were doing well and what they still needed. FCF was moving to a new, dedicated venue for their second season, so they had a chance to do things right. On top of that, the league was growing immensely — from four teams in the first season to eight in the second. New celebrity team owners were coming in (Tiki and Ronde Barber, Cynthia Frelund, and Steve Aoki, to name a few) bringing along their audiences. For season two, FCF had to be ready for primetime. They chose to partner with Zayo.

From the start, Farudi says one of the things that impressed him was "the customer service aspect has been phenomenal. I can text; I can email; I can call. And I get a response within 20 minutes." This came in contrast to his experiences at several larger vendors which they tried first. "Other vendors were just a big black hole. You'd wait two weeks for an answer. It didn't give me a lot of confidence."

“One of the things we tried to figure out with NBC was how to optimize transmission of the signal from the venue to the end user's device. For users to call plays in real-time, they can only be so many seconds behind the live game. Otherwise, you're calling the play after it's been run. We're keeping an eye on that delay and working to keep it as low as possible for our fans.”

Steve Adler
Chief Technical Officer





Farudi and Adler worked with Zayo to create a custom solution that met their extensive and demanding needs. Regarding Adler's redundancy concerns, "Zayo was hugely responsive," he says. "They understood the requirement and were able to execute on an aggressive timeline to trench two fibers into the location." And sure enough, a couple of weeks into the season, nearby construction turned Adler's concern into reality: a fiber cut. "Our primary circuit went down, and we simply switched over to the secondary. We could've been down hard for that entire week."

And the reliability and capacity upgrades came just in time: the FCF crew is seeing a huge jump in viewership numbers. "Over our first season, we averaged a million viewers per game day," points out Farudi. "We're averaging two and a half million this season."

"We ultimately chose Zayo because of the service," he says. "Zayo invested time to really understand what we needed and to give us options."

What's next for Fan Controlled Football? Fan Controlled Hoops is coming Fall 2022. Then baseball, then maybe other sports ripe for disruption (Farudi notes that the company name is "Fan Controlled Sports and Entertainment"). They're also looking at more immersive forms of broadcasting in the future, such as augmented and virtual reality, and growing the role that NFTs play in unlocking greater levels of fan control — more digital dependencies that will deepen their need for high-performance, reliable connectivity.

Find out more about how Zayo is the network for what's next in media and entertainment.

Learn more about Zayo: zayo.com

Learn more about Fan Controlled Football: fcf.io

About Zayo

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