



WHITEPAPER

# **As Sports Leagues Improve Streaming Experiences, New Wave Of Technical Challenges Follow**

Emerging strategies to integrate  
platforms and applications for  
seamless fan viewing

The business of streaming sports rights will top **\$25B** in 2023 and grow to as much as **\$30B** in the next couple of years.<sup>1</sup>

As more content splinters across more platforms and networks, fans haven't had the easiest time keeping up with how and where to watch their favorite teams on any given day. In a survey Deloitte conducted of more than 3,000 U.S. sports fan ages 14 and up, half said they had missed a game they wanted to watch because they didn't have the right streaming service.<sup>2</sup>

Streaming has resulted in an unprecedented opportunity to tune into the games or events they want to see but a complex web of platforms, applications and passwords thwart a seamless viewing experience.

Leagues and sports organizations are catching on. Increasingly, they endeavor to simplify how streamed events can be found and viewed. Particularly, there is an opportunity to make league TV and mobile apps a one-stop destination fans can visit to find and view games based on subscriptions they may already have. This win-win scenario can increase the value of these subscriptions as fans watch more games and become accustomed to a more consistent viewing experience, regardless of the particular rights holder.

Technical challenges loom, however, as platform-specific technology requirements, and a proliferation of platforms and devices challenge how identity and authentication are managed in league apps. This whitepaper will explore the integration hurdles that must be cleared and propose solutions for streamlining the process, including adopting standardized APIs.



1 <https://www.spglobal.com/marketintelligence/en/news-insights/blog/from-the-stadium-to-the-screen-examining-the-impact-of-streaming-on-sports-media-and-consumption>

2 <https://www2.deloitte.com/us/en/insights/industry/media-and-entertainment/immersive-sports-fandom.html>

## Sports Complexity a Challenge for Streamers and Viewers Alike

Historically, television networks controlled the delivery of content to viewers but streaming has changed the market landscape. There are now more games and events to watch on more platforms than ever before. There are also more subscriptions to manage viewing access, often varying by day or region. This dynamic will only become more complex.

It is recognized that fans deserve a seamless viewing experience where all of the content they have paid for is easily accessible and just a click away. But the nature of sporting events and the business of sports contents rights presents unique challenges in logistics, distribution and consumption:

- Leagues consist of multiple teams spanning different regions.
- Fans enjoy watching events live but games often occur simultaneously, with various teams playing each other at specific days and times.
- Different leagues and sports organizations manage streaming and viewing rights differently.
- Sports fans often struggle to determine which streaming service hosts a particular game on a specific date and the lack of centralized access to content can hinder their ability to watch live games as they happen.

Save for some connected TV platforms attempting to unify search, there have been no enduring solutions to these challenges. Advancements in authentication, identity management and platform integrations present an opportunity to address the complications associated with streaming sports.

## Standardizing the Integration Process

Integrating users from external streaming services into a league's application is fraught with challenges because external streaming services each introduce proprietary technical stacks, often using different technologies not designed to integrate with external sources. This puts the burden on engineering teams to manage updates, changes and technical requirements from each of these external platforms.

Leagues are often presented with two choices:

- **Hire technical experts able to handle multiple custom integrations.** This solution is expensive and time-consuming as it requires the company to maintain a team of experts capable of handling the technical requirements of each external platform.
- **Standardize the integration process utilizing industry standards such as SAML and OAuth.** This approach provides a standardized integration process that can be utilized and understood by a wider range of technical experts, requiring ongoing oversight and fine-tuning to achieve continued efficiency and effectiveness.

By adopting industry standards, the technical teams can streamline the integration process, reducing the amount of time and resources required to integrate with new platforms and improving the overall viewing experience for users.

# How One League Is Tackling Sports Streaming Complexity

A major U.S. sports league recently adopted this integration standardization process. New content deals made games available through more than half a dozen partners. Logins needed to be supported through these third party credentials with viewing taking place in the league's digital properties or third-party apps. They quickly recognized that integrating all of these diverse platforms into a unified technology stack required an extraordinary amount of technical expertise. The league recognized it would be ideal for its engineers to remain focused on the user experience and rely on identity experts to help manage the labor-intensive integrations process.

## Fast, Seamless Integration for the Win

The league turned to the Cloud ID authentication and authorization solution, which adopts a well-defined industry standard for integrations, supported by a team of integration experts with a proven history of identity management.

Following a one-time integration with the league's app, the Cloud ID stack handled all the intricacies of individual integrations and abstracted them behind a standardized interface. As a result, regardless of which content provider the app user authenticated through, the system was able to pull standard user identifiers and determine whether the user had access to the content. This eliminated the need to create a new integration for every provider.

The league integrated with Cloud ID through an interface comprising authentication and authorization components. When a user attempts to access content, the authentication process begins with a GET request, specifying parameters such as the identity provider for login and the content the user is attempting to access. The user is then redirected to the provider's login page, where they validate their identity. Upon successful validation, a POST request is submitted to the league's servers to verify the response, establish a user session and redirect the user to the desired content on their app or website.

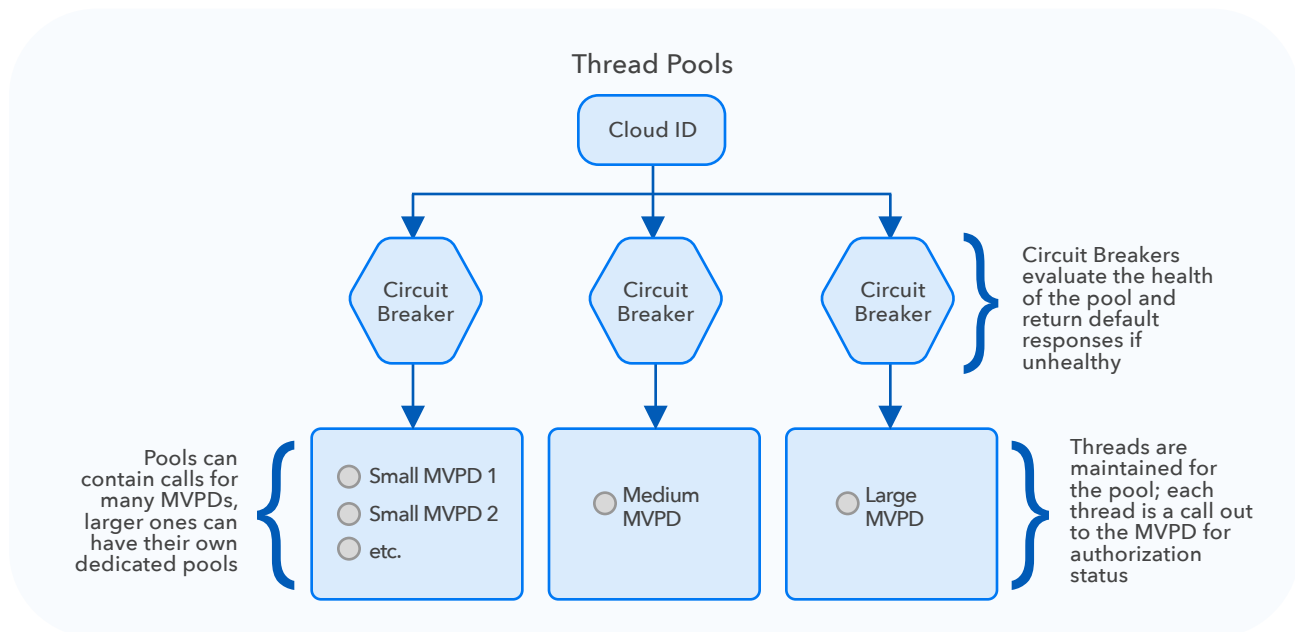
To enable user login through any provider, the league simply modifies the identity provider parameter, leaving all other aspects of the process unchanged. After authenticating a user, they conduct periodic authorization checks with the platform to ensure the user continues to have the permissions required to consume the content and has not canceled their subscription. This integration is established on the backend through Cloud ID, which communicates with the respective APIs on the provider's side and returns either a "permit" or "deny" response for the user. This seamless authentication and authorization process streamlines the user experience while maintaining security and access control.



## A Secure, Steady Process With High Performance

One of the most significant technological challenges faced by sporting events is the sporadic nature of traffic, with a large number of transactions occurring at the start of games when people are logging in to access game content. It is similar to major “must view” streaming events like series finales and premieres.

These surges can cause heavy load on external client APIs, and because not all technology stacks are created equal, some may struggle under such volume. The Cloud ID system addresses this issue by implementing an innovative circuit breaker architecture that prevents outages across by proactively reducing traffic to platforms that are overloaded so that others are not impacted.



This system focuses on maintaining system stability and performance during high traffic conditions by dynamically managing the load on external client APIs. The system maintains a pool of connections to a given external client. When this pool becomes saturated due to high demand, the circuit breaker mechanism is activated. This prevents system overloads and improves overall performance, ensuring a seamless and reliable user experience even during peak traffic periods.

The circuit breakers operate automatically, intelligently managing traffic surges and maintaining the system’s stability. When degradation is detected, the breakers short circuit the vast majority of the traffic temporarily, while allowing a small subset of calls to go through in order to assess whether the connection is healthy enough to resume normal operation. This approach prevents the failure of one client from negatively affecting other functioning providers, preserving the integrity of the entire system.

By leveraging this architecture, the Cloud ID system can effectively handle the sporadic and unpredictable traffic patterns associated with live sporting events, ensuring a smooth and uninterrupted streaming experience for fans. This not only enhances user satisfaction but also demonstrates the robustness and adaptability of the Cloud ID system in the face of ever-evolving streaming demands.

## An Easier Decision With a Proven Outcome

The Cloud ID system provides separate staging and production environments, enabling thorough testing of new provider integrations across a wide range of use-cases before making them available to the public. This comprehensive pre-production testing process allows all involved parties, including the league and external providers, to confidently approve their specific use-cases and ensure delivery of a consistently reliable and robust product to end-users at all times.

The adoption of a well-defined integration procedure that relies on established, industry-tested protocols has made it easier for the league to have productive, efficient discussions with streaming services about embarking on a new viewer experience journey. Content providers are able to make informed integration strategy decisions with the league based on a clear understanding of the available technologies and the assurance that following these protocols will lead to a successful integration with minimal additional effort. This approach eliminates the need to brainstorm custom integration solutions and conduct extensive trials, allowing content providers to focus on seamlessly adapting to the league's standardized integration process.

By adopting the Cloud ID system, the league is able to focus more on making deals with content providers and concentrate on delivering a better experience without having to update their technology stack constantly. Moreover, the streamlined process enables the league to provide a more centralized platform for fans, making it easier for them to find and watch their favorite games, regardless of the service provider. This improved user experience leads to increased viewer engagement and higher satisfaction among fans.

**“Streaming and sports media deals are pushing content to new places faster than ever. Cloud ID is ensuring that our sign-in process has the speed, security and scalability we need to quickly deliver to virtually any platform where fans want to access our programming.”**

Dave Zur, SVP of Operations and Engineering at Altitude Sports

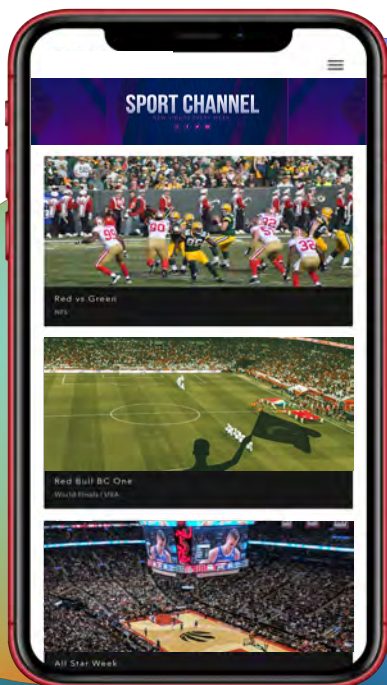


## Conclusion

The fast growth of content streaming services has significantly impacted the way live sports are consumed, presenting unique challenges for sports leagues, fans and engineering teams alike. The fragmentation of live sports content across multiple streaming services poses challenges for fans trying to access games in real-time, and integrating those platforms into their own applications poses technical challenges for leagues. However, by adopting standardized integration processes, such as SAML and OAuth, sports leagues can reduce complexity integration with multiple external platforms.

They have demonstrated the benefits of adopting such an approach. By integrating with the Cloud ID authentication and authorization platform, they are providing a more centralized platform for fans, making it easier to find and watch their favorite games regardless of service provider. This streamlined process is enabling the league to focus on making deals with content providers and concentrate on delivering a better experience without constantly having to update a technology stack. This improved user experience has increased viewer engagement and improved fan satisfaction.

As content streaming services continue to grow and change, adopting standardized integration processes will become a critical strategy for sports leagues that want to remain competitive and deliver the best possible experience for viewers. Further research and development on this front will continue to optimize the integration process and address emerging challenges in the ever-evolving landscape of live sports content consumption. By embracing industry-standard integration processes, sports leagues can enhance viewer engagement, increase revenue growth and ensure a seamless, user-friendly experience.



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