UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

SPORTSCASTR INC. (d/b/a PANDA INTERACTIVE), Plaintiffs, v. SPORTRADAR GROUP, AG, Defendant.	)	Civil Action No. 23cv472 JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff SportsCastr Inc. (d/b/a PANDA Interactive) ("Plaintiff" or "PANDA") alleges against Defendant Sportradar Group, AG ("Defendant" or "Sportradar") the following:

1. PANDA developed, built and has obtained numerous patents covering, revolutionary Internet technology for the delivery of broadcasts that are enhanced with synchronized, contextually-matched and actionable live data and content. For example, this technology enables viewers to see live odds and to place a bet while watching a sporting event. PANDA's technology is ultra-low latency, push-based and scalable to millions of viewers. It has been widely copied in the streaming market generally, and even more so in the exploding online sports betting market. PANDA's patented technology underpins the sports streaming industry's offerings; but those offerings, including Defendant's offerings are without license or authorization and infringe PANDA's patents.

2. This case involves patented technologies that helped to revolutionize, and have become increasingly adopted in, the fields of live video streaming, also referred to as livestreaming or simply streaming. Live video streaming involves recording and broadcasting an event, such as a sporting event, concert, or product promotion, over the internet in real-time or

near real-time to multiple viewers across the network.

3. In addition to covering an event with video signals, today's live video streaming also attempts to provide viewers with synchronized event information, such as game status of a sporting event or price information of a product promotion.

4. The synchronized event information enabled by the patented technologies may also be actionable. For example, a viewer may click the game status to view or receive more detailed statistics and analysis (such as player and/or game statistics, betting odds, or betting opportunities) or click the price information to place an order of a promoted product. The interactive features of the patented technologies allow the viewer to interact and/or transact, for example, by placing a bet or purchasing a promoted product, while viewing the sporting event without interruption.

5. By the early-to-mid-2010s, as social media and smartphones became widespread, the industry of live video streaming saw exponential growth. By the mid-2010s, many with a smartphone and internet access were able to become content broadcasters via one of the social media platforms, such as YouTube, Facebook Live, and/or TikTok.

6. Despite substantial investments in resources and time, conventional video streaming systems still suffer from several drawbacks that often lead to frustrating user experiences for broadcasters, viewers, or both. One such drawback is the synchronization between contextual-matched event information and the video signals. In many cases, such as when live streaming sports, or sports-betting related content, any noticeable offset (e.g., greater than 1 second) often confuses viewers, and greatly hampers the viewing experience.

7. Relatedly, conventional live video streaming systems also struggle to synchronize the broadcasting among multiple viewers. The offset between different viewers can become

especially significant when they watch videos of different qualities or use network connections having different bandwidths.

8. Plaintiff's patented technologies helped transform the way video streaming is conducted, reducing, and often even eliminating the shortcomings that plagued conventional video streaming systems.

9. More specifically, Plaintiff's patented technologies use a novel socket server architecture that allows actionable and contextual-matched information to be provided in a synchronized and efficient way with online streaming video.

10. Traditional socket server architectures provided one-to-one connections, where a unique identifier was provided to each authenticated user to connect to their own unique socket.

11. Plaintiff's patented technologies, on the other hand, employ a novel socket server architecture, in which a socket is dedicated to a particular live stream to all viewers watching that live stream. For example, Plaintiff's patented technologies allow multiple users to connect to the same event socket, thereby achieving a one-to-many socket architecture. Plaintiff's patented technologies' use of a one-to-many socket architecture was counter to the then-conventional understanding and use of sockets. For example, prior art socket architectures were not designed or used for the delivery of interactive and synchronous content alongside live video streams, let alone multi-cast (or one-to-many) delivery of content over a single unauthenticated socket. Rather, prior art sockets were used in specific and limited applications, such as for chat rooms, delivering update notifications, or other lower data-rate information, where each individual user was connected to a separate socket and given a unique user id. (S*ee,* PANDA-SR_000082-PANDA-SR_000095,

https://web.archive.org/web/20160307174809/http://blog.pusher.com/using-your-real-time-

data-features/.)

12. In operation, Plaintiff's patented technologies employ a web server to deliver a uniform resource locator (URL), which contains the address of the socket dedicated to a streamed event, to viewers interested in watching the event. Viewers can then use the received URL to connect to the dedicated socket and retrieve synchronized event information from the socket server. The interconnectivity of respective sockets of a socket server to multiple viewer client devices allows for synchronous real-time sharing of event information relating to a live event.

13. Plaintiff's patented technologies also employ separate channels for video content and event information. More specifically, video content is received at a viewer device on a first communication channel (*e.g.*, from a media server), while other video-related information (*e.g.*, game status, price information) are received on a different second communication channel originating at a designated socket of socket server. The different information streams on the separate first and second channels are seamlessly integrated at the viewer device and displayed to the viewer. In this manner, contextual-matched and actionable information is synchronized with livestreaming video. The delivery of video and video-related information over separate channels allows for unmodified video to be delivered, which is an important improvement over prior art systems which required contextual information to be embedded in the video stream itself, increasing processing delays and requiring special license and media rights held by only a few individuals.

14. Plaintiff has implemented its patented technologies in its video streaming products including a video-based social network targeting consumers (SportsCastr) and a B2B software solution designed for major enterprises, sports media, affiliates, and betting operators (PANDA Studio). It was one of the first companies to receive an investment and licensing deal from the

NFL Players Association (NFLPA) and was an officially licensed NFLPA platform.

15. Over the years, Plaintiff has also received numerous accolades and awards for its products and services, including winning Sports Tech Tokyo and being named a finalist in the Yahoo! Sports Tech Awards and Sports Business Journal's Best in Sport's Tech in 2019. Its technology and platform has been featured in dozens of mainstream and trade publications and TV broadcasts including CNBC, Yahoo!, CNet, Sports Business Journal, Forbes and many more.

16. Plaintiff currently owns numerous patents and pending patent applications describing and claiming these technologies and other innovations, including U.S. Patent Nos. 10,805,687 ("the '687 Patent"), 11,039,218 ("the '218 Patent"), and 10,425,697 ("the '697 Patent").

17. Defendant Sportradar AG is a direct competitor of Plaintiff and provides video streaming software and systems that, without authorization, implements Plaintiff's patented technologies. Sportradar's infringing video stream products include, but are not limited to, the Sportradar emBet, Sportradar OTT, and Sportradar Live Channel Trading (LCT), including prior versions and functionalities that are the same or essentially same as that described herein ("Accused Products"). Through Defendant's illegal and unauthorized use of Plaintiff's patented technology, Defendant has earned significantly increased profits, revenue, market capital, and market share.

18. Plaintiff brings this action to seek damages for and ultimately to stop Defendant's continued infringement of Plaintiff's patents, including in particular the '687, '218, and '697 Patents (collectively, the "Asserted Patents"; Exhibits 1-3). As a result of Defendant's unlawful competition in this District and elsewhere in the United States, Plaintiff has lost sales and profits and suffered irreparable harm, including lost market share and goodwill.

NATURE OF THE CASE

19. Plaintiff brings claims under the patent laws of the United States, 35 U.S.C. § 1, *et seq*., for infringement of the Asserted Patents. Defendant has infringed and continues to infringe each of the Asserted Patents under at least 35 U.S.C. §§271(a), 271(b) and 271(c).

THE PARTIES

20. Plaintiff, SportsCastr Inc., is the owner by assignment of each of the Asserted Patents.

21. Plaintiff has launched multiple video streaming products incorporating its patented technologies, including for example the SportsCastr mobile app for sports fans and journalists and PANDA Studio, a B2B video streaming platform for sports media, betting operators and affiliates.

22. Plaintiff is a registered business in Delaware.

23. On information and belief, Defendant Sportradar AG is a Swiss corporation with its headquarters and principal place in St. Gallen, Switzerland. (*See* PANDA-SR_000073, https://sportradar.com/about/locations/?lang=en-us.)

JURISDICTION & VENUE

24. This action arises under the Patent Laws of the United States, 35 U.S.C. § 1, et seq. The Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

25. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and (c) and 28 U.S.C. § 1400(b). Upon information and belief, Sportradar AG is a foreign entity over

which venue is proper under 28 U.S.C. §1391(c). On information and belief, Sportradar AG has also committed acts of infringement within this District.

26. On information and belief, Sportradar AG is subject to this Court's specific and general personal jurisdiction, pursuant to due process and Tex. Civ. Prac. & Rem. Code § 17.042, due at least to its recruitment and employment of citizens of Texas in this forum.

27. On information and belief, Sportradar has a regular and established practice of recruiting employees for work in Texas in furtherance of its business, and specifically in relation to the Accused Products. For example, as shown below, Sportradar is actively recruiting a full-time employee in Texas in connection with furthering its business and offering for sale and selling the Accused Products:



(*See*, PANDA-SR_000001, https://www.linkedin.com/jobs/view/full-stack-c%23-angular-developer-at-sportradar-3659326357/.) On information and belief, the exemplary recruiting effort is demonstrative of a larger recruiting effort to recruit citizens of Texas to perform jobs in relation

to the Accused Products. This conduct adequately shows Sportradar AG does business in Texas sufficient to establish jurisdiction under Tex. Civ. Prac. & Rem. Code § 17.042.

28. This Court has personal jurisdiction over Sportradar AG in the State of Texas and in this District. Sportradar AG has purposely directed its activities toward the State of Texas which give rise to the causes of action asserted by Plaintiffs such that the exercise of personal jurisdiction by courts within the State of Texas is fair and reasonable. On information and belief, Sportradar AG is a foreign corporation with significant contacts with this District. Through its activities in this District, Sportradar AG has directly and/or through intermediaries including partners, purposefully and voluntarily placed products and/or provided services that practice the systems and methods claimed in the Asserted Patents into the stream of commerce with the intention and expectation that they will be purchased and used by customers in the State of Texas and within this District. As an example, Sportradar AG provided services that practice the systems and methods claimed in the Asserted Patents in the State of Texas and within this District.

29. On information and belief, Sportradar AG also uses a network of partners to provide the Accused Products and implementation services for the Accused Products to its customers the State of Texas and within this District. Sportradar has already entered into data partnerships with U.S. professional sports leagues, including the National Basketball Association, the National Football League, the National Hockey League, the Extreme Football League, Major League Baseball, and NASCAR. (*See*, PANDA-SR_000074-PANDA-SR_000077, https://media.sportbusiness.com/news/xfl-adds-sportradar-to-portfolio-in-data-agreement/.)

30. On information and belief, Sportradar AG places these products and/or provides services in the stream of commerce with the knowledge and intention that they are used by persons residing in Texas. On information and belief, the Accused Products are used in multiple

neighboring states that have legalized gambling, including Louisiana and Arkansas. (*See*, PANDA-SR_000078-PANDA-SR_000081, https://www.bettexas.com/news/sportradar-s-brandt-iden-bullish-on-texas-sports-betting-being-legalized. *See also*, PANDA-SR_000096-PANDA-SR_000098, https://www.gamingtoday.com/news/louisiana-sports-betting-texans-crossing-state-border-impact/.) Furthermore, Sportradar has been actively involved in lobbying for gambling to be legalized in the State of Texas. *See*, PANDA-SR_000078-PANDA-SR_000081, https://www.bettexas.com/news/sportradar-s-brandt-iden-bullish-on-texas-sports-betting-being-legalized.)

31. On information and belief, notwithstanding Texas state law, numerous residents in Texas utilize products, including the Accused Products, to place sports wagers. Studies from Eilers & Krejcik Gaming indicate that Texas residents place as many as two million offshore bets a year on sports, totaling an estimated $8.7 billion. During Texas' recent legislative session, Representative Jeff Leach, who represents residents within this District in the Texas House of Representatives, authored legislation to address the large volume of illegal sports betting that occurs in the State of Texas. Rep. Leach testified before a House committee, "The hundreds of thousands of Texans, who every year are placing nearly $7 billion in sports wagers, are doing so illegally and they're doing so criminally. We have the opportunity with this legislature to implement smart, safe and efficient oversight over the sports betting industry and sports wagering activities in the state of Texas." (*See,* PANDA-SR_00225-PANDA-SR_00227, https://www.statesman.com/story/news/politics/state/2023/03/24/texas-legislature-sports-betting-gambling-casino-rick-perry-jeff-leach/70042725007/.)

32. Furthermore, Sportradar AG has entered into streaming and broadcast agreements with multiple networks and broadcasters who broadcast sports media in the State of Texas and within this District.

33. Texas is home to 12 major league men's professional teams and two major league women's professional teams. Three of these teams are located in this District—the Dallas Cowboys, the Dallas Stars, and FC Dallas, each of which are headquartered in Frisco, Texas.

34. Texas is also home to numerous college-level sports teams. Four NCAA Division 1 Colleges are located in this District.

35. On information and belief, Sportradar AG and/or its partners intentionally use and profit from data and video from professional and college-level Texas sports teams through the Accused Products. In addition, Sportradar supports broadcasts and provides content including content widgets, headshots, action shots, data APIs, and data insights for multiple leagues and college conferences, including the Southeastern Conference, of which Texas A&M University is currently a part and the University of Texas will be joining next year. (*See*, PANDA-SR_000069-PANDA-SR_000072, https://www.sportsvideo.org/2022/09/15/sportradar-supplies-data-support-for-41-total-nfl-college-football-games-during-opening-weekend/.)

36. For at least these reasons, personal jurisdiction exists under Tex. Civ. Prac. & Rem. Code § 17.042 and venue is proper in this District under 28 U.S.C. §1391(c).

PLAINTIFF'S PATENTED INNOVATIONS

37. Plaintiff PANDA Interactive, and its predecessors, were all pioneers and leading innovators in developing and providing advanced video streaming solutions, including SportsCastr and PANDA Studio that offers technology platforms that enable live and interactive video streaming enhanced with vibrant real-time visuals and overlays that are contextually matched and synchronized

with any live or pre-recorded video.

38. The Asserted Patents discussed below capture technology, features, and processes that reflect these innovations, and improve on traditional video streaming systems.

39. The ’687, ’218, and ’697 Patents are part of the same patent family and generally disclose and claim systems and processes related to video streaming with contextual-matched event information. Plaintiff owns by assignment the entire right, title, and interest in and to the ’687, ’218, and ’697 Patents.

40. The ’687 Patent is entitled “Systems, apparatus, and methods for scalable low-latency viewing of broadcast digital content streams of live events, and synchronization of event information with viewed streams, via multiple internet channels,” was filed on September 24, 2019, and was duly and legally issued by the United States Patent and Trademark Office (“USPTO”) on October 13, 2020. The ’687 Patent claims priority to provisional application No. 62/371,558, filed on August 5, 2016. A true and correct copy of the ’687 Patent is attached as Exhibit 1.

41. The ’218 Patent is entitled “Systems, apparatus and methods for rendering digital content relating to a sporting event with online gaming information,” was filed on January 5, 2021, and was duly and legally issued by the USPTO on June 15, 2021. The ’218 Patent claims priority to the same provisional application as the ’687 Patent. A true and correct copy of the ’218 Patent is attached as Exhibit 2.

42. The ’697 Patent is entitled “Systems, apparatus, and methods for scalable low-latency viewing of broadcast digital content streams of live events, and synchronization of event information with viewed streams, via multiple internet channels,” was filed on February 5, 2019, and was duly and legally issued by the USPTO on September 24, 2019. The ’697 Patent claims

priority to the same provisional application as the '687 Patent. A true and correct copy of the '697 Patent is attached as Exhibit 3.

43. Conventional video streaming systems hard-embedded event information into the video signals and delivered them together to viewers. (*See*, Exhibit 2, '218 Patent, at 28:59-65), which had the drawbacks discussed above, including processing overhead and limited licensing and rights.

44. Conventional approaches to live video streaming had significant shortcomings that often lead to frustrating user experiences. For example, the viewer latency, *i.e.*, the delay between a first user generating a live video stream for transmission via the Internet and a second user receiving a copy of the live video stream via the Internet for viewing, was still significant. (*See*, Exhibit 2, '218 Patent, at 2:40-52.) For example, mainstream platforms such as Twitch.tv and Facebook had about 10-15 seconds of view latency. *Id*.

45. Furthermore, conventional video streaming systems also had difficulties in providing relatively low latency copies of live video streams with relatively high quality (e.g., high-definition HD and high bit rate, such as 2 to 5 megabits per second) or allowing for different classes or types of viewers to flexibly access copies of a live video stream via different live streaming formats, which may lead to different qualities of service. (Exhibit 2, '218 Patent, at 2:55-65.)

46. By contrast, the methods and systems disclosed and claimed in the Asserted Patents provide a novel and specific technological improvement over the prior art, by among other things, performing live video streaming that is enhanced with a one-to-many socket architecture for real-time, contextually matched and actionable event information, in which one socket of a socket server dedicated to a particular event allows multiple viewer client devices to establish an

event information channel with the socket server, such that the event information is shared in a synchronized manner by all broadcasters/viewers following the particular event. (Exhibit 2, '218 Patent, at 20:16-30; 21:56-22:4; 22:26-57; 23:4-18; 27:23-45; 29:43-61; 53:34-50.) To this end, the patented technologies use a web server to provide viewers with an identifier of the particular event, also referred to as EventID, which corresponds to the socket dedicated to a particular event. Viewers who are interested in watching the live stream of the particular event can then use the received EventID to connect to the dedicated server. In response, the socket server transmits the event information associated with the particular event back to the viewers via an event information channel. (Exhibit 2, '218 Patent, at 22:5-25; 23:37-63.)

47. The event information channel that is configured to transmit event information to viewers is separate from a video channel that is configured to transmit video signals, which can be the live video of the event being streamed or any other video-based commentary (*e.g.*, provided by broadcasters). Providing sockets dedicated to the event information and separate from the live stream of video-based commentary provides for user-interactive features in connection with the event information, such as clickable overlays, screen animations, and special effects graphics incorporating the event information. For example, the user may interact with an overlay or on-screen graphic including the event information to obtain access to additional (and in some cases more detailed) information relating to the event (*e.g.*, a drill down on more granular event information, or a redirect to a web site or other app related to the particular event) or to make a transaction such as placing a bet or purchasing merchandise. (Exhibit 2, '218 Patent, at 7:26-47; 23:4-18; 27:1-22; 29:43-61.)

48. Each of the claimed inventions of the Asserted Patents is necessarily rooted in computer technology—in other words, the synchronized streaming of events and associated event

information to multiple viewers is fundamentally and inextricably a problem experienced with computer technology and networks—and addresses this fundamental computer technology problem with a computer technology solution.

49. In addition, the Asserted Patents improve the technical functioning of the computer network using techniques, such as one-to-many socket architecture and separate communication channels for video and other event information. The architectural difference between the patented technologies and prior art systems effectively addresses identified weaknesses in conventional systems and processes. (*See*, *e.g.*, Exhibit 2, '218 Patent, at 26:37-27:45; 28:59-29:61.)

50. For example, one technical challenge overcome by the inventive concepts described and claimed in the Asserted Patents relates to the display of event information updates (if present, e.g., if the broadcast is associated with an event), as well as screen animations and other special effects graphics that may be generally associated with the video associated with a live stream, in a manner that is synchronized across multiple live streams with appreciably low latency. This is a particularly relevant consideration when multiple broadcasters are providing video-based commentary for the same event, and each of these broadcasters may have multiple viewers of their broadcast. Accordingly, the technical challenge is to provide the same event information, and periodic updates to this event information, in a synchronized and low-latency manner to all of these broadcasters and viewers interested in following the same event. (Exhibit 2, '218 Patent, at 26:39-56.)

51. The Asserted Patents describes and claims a technological solution implemented on both the client devices and the server architecture to which the client devices are communicatively coupled. This technological solution involves the use of multiple

communication channels respectively dedicated to video content from a given broadcaster and event information germane to an event about which any broadcaster may be providing video-based commentary. (Exhibit 2, '218 Patent, at 26:56-67.)

52. As discussed above, event information and updates to event information are provided to broadcaster client devices and viewer client devices via a socket-based "event information channel" dedicated to the event, which is separate from the copy of the live stream of video-based commentary provided on a "video channel." Thus, all viewers and broadcasters of the event, regardless of which live stream they may be generating or watching, connect to one or more sockets of a socket server that is/are dedicated to the event, such that all live streams relating to the event are similarly synchronized to event information and updates to same. (Exhibit 2, '218 Patent, at 27:1-13.)

53. Notably, if a viewer switches amongst different broadcasters of the same event (*e.g.*, the viewer originally watches a first live stream from a first broadcaster of the event, and later selects a second live stream from a second broadcaster of the same event), the event information and updates to same remain synchronized with all live streams from the different broadcasters, providing for a smooth experience across multiple broadcasters and viewers, thus enabling broadcasters and rights-holders offer personalized broadcasts in multiple languages and vantage points. (Exhibit 2, '218 Patent, at 27:14-22.)

54. Another technical challenge overcome by the Asserted Patents relates to client-side rendering of overlays, on-screen interactive animation, special effects, and/or event information. By way of background, in conventional sports broadcasting, game information (such as player and betting stats), and current score information, also sometimes referred to as a "scorebug," as well as screen animations and other special effects graphics, are hard-embedded

into the live stream of the game broadcast itself that is received by viewers. (Exhibit 2, '218 Patent, at 28:59-65.) This hard-embedding approach is inflexible and may cause licensing issues for right holders if the video feed is modified to add customized event information.

55. Unlike conventional systems, in the technological solution offered by the Asserted Patents, graphics and effects are generated by the client device itself, separate from a given broadcaster's video-based commentary or other video signals, and then integrated with (*e.g.*, superimposed or overlaid on) the broadcaster's video-based commentary or other video signals when rendered on the display of the client device. (Exhibit 2, '218 Patent, at 28:65-29:10).

56. In summary, the patented technologies, via the one-to-many architecture and separate channels for video and event information, improve computer network functionality by facilitating scalable and appreciably low-latency viewing of both live events and video-based commentary about an event by significant numbers of viewers as the event unfolds. Particularly in the context of live sports and sports betting broadcasts, a discernible delay between the observation of the event itself and a given broadcaster's video-based commentary would significantly undermine viewer experience. (Exhibit 2, '218 Patent, at 4:42-58.) The patented technologies also improve computer network functionality by improving the speed of content transfer from broadcaster devices to viewer devices and synchronization of various content amongst multiple client devices. (Exhibit 2, '218 Patent, at 24:59-25:11.) The patented technologies further improve computer network functionality by improving the processing efficiency of broadcaster and viewer client devices via execution of the client app, while at the same time reducing memory storage requirements for the client app on the client devices. *Id*.

ACCUSED PRODUCTS

57. Defendant offers, sells, and uses several products that provide and implement video streaming platforms for individuals and enterprises and incorporate Plaintiff's patented technologies.

58. Out of the various applications of the patented video streaming technology, Defendant chose to implement it in sports betting products and services. More specifically, Defendant implements the patented technologies at least in Sportradar emBet, Sportradar OTT, and Sportradar Live Channel Trading (LCT).

59. Sportradar emBET was launched by Sportradar in 2021 as a new product that integrates live betting with real-time broadcasts. Along with content, emBet provides fans with a wagering opportunity, i.e., "[p]layers can seamlessly place a bet on the game they are watching while the action is taking place." (*See*, PANDA-SR_000066-PANDA-SR_000068, https://www.bettingusa.com/sportradar-real-time-betting-live-broadcasts/.)

60. Sportradar OTT is an over-the-top platform that combines video and data to provide interactive content solutions for rightsholders. (*See*, PANDA-SR_000041-PANDA-SR_00044, https://sportradar.com/sports-entertainment/audiovisual/ott/?lang=en-us.)

61. Sportradar Live Channel Trading (LCT) product is a platform for providing in-play trading with all matches transmitted via Sportradar's in-house, purpose-built Video Delivery Network (VDN), a back-end live video streaming system that provides audiovisual game feeds and supplementary betting services for sportsbooks. (*See*, PANDA-SR_000051, https://investors.sportradar.com/news-releases/news-release-details/industry-leaders-sportradar-and-fanduel-sign-long-term-agreement.)

FIRST CAUSE OF ACTION
(INFRINGEMENT OF THE '687 PATENT)

62. Plaintiff realleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint.

63. Defendant has infringed and continues to infringe one or more claims of the '687 Patent in violation of 35 U.S.C. § 271 in this District and elsewhere in the United States and will continue to do so unless enjoined by this Court. The Accused Products, including features of the Sportradar emBet, Sportradar OTT, and Sportradar LCT, at least when used for their ordinary and customary purposes, practice each element of at least claims 19 and 20 of the '687 Patent as demonstrated below.

64. For example, claim 19 of the '687 Patent recites:

> 19. A system for providing a first plurality of copies of a first live stream of digital content relating to a first live sporting event to a first plurality of viewer client devices, and for providing a second plurality of copies of a second live stream of digital content relating to a second live sporting event to a second plurality of viewer client devices, the system comprising:
>
> A) a plurality of media sources to:
>
> receive the first live stream of digital content and the second live stream of digital content;
>
> provide a first copy of the first plurality of copies to a first viewer client device of the first plurality of viewer client devices via a first Internet communication channel between the plurality of media sources and the first viewer client device of the first plurality of viewer client devices; and
>
> provide a first copy of the second plurality of copies to a first viewer client device of the second plurality of viewer client devices via a second Internet communication channel between the plurality of media sources and the first viewer client device of the second plurality of viewer client devices;
>
> B) a control server to periodically retrieve, via the Internet, first event information germane to the first live sporting event and second event information germane to the second live sporting event; and

C) at least one socket server communicatively coupled to the control server to:

receive from the control server at least some of the first event information and at least some of the second event information; and

transmit the at least some of the first event information to the first viewer client device of the first plurality of viewer client devices via a third Internet communication channel between at least one first event socket of the at least one socket server and the first viewer client device of the first plurality of viewer devices; and

transmit the at least some of the second event information to the first viewer client device of the second plurality of viewer client devices via a fourth Internet communication channel between at least one second event socket of the at least one socket server and the first viewer client device of the second plurality of viewer devices.

65. Claim 20 of the ’687 Patent, which depends from claim 19, recites:

20. The system of claim 19, wherein:

in A), the plurality of media sources:

provide a second copy of the first plurality of copies to a second viewer client device of the first plurality of viewer client devices via a third video Internet communication channel between the plurality of media sources and the second viewer client device of the first plurality of viewer client devices; and

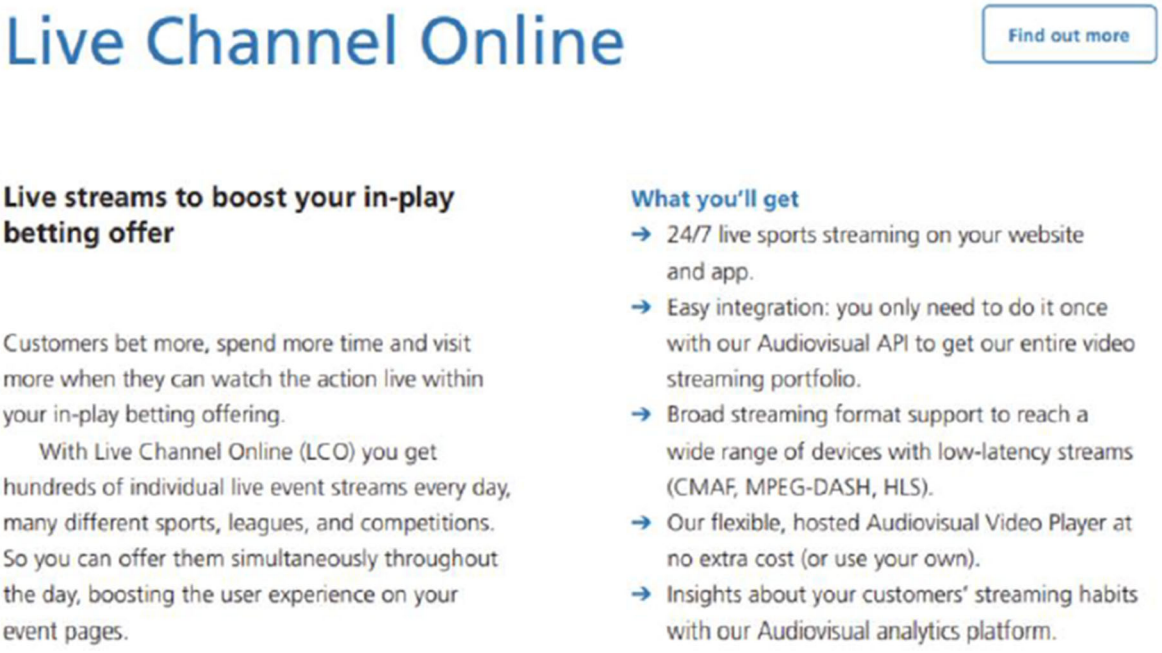
provide a second copy of the second plurality of copies to a second viewer client device of the second plurality of viewer client devices via a fourth video Internet communication channel between the plurality of media sources and the second viewer client device of the second plurality of viewer client devices; and

in C), the at least one socket server:

transmits at least the first event information to the second viewer client device of the first plurality of viewer client devices via a third event information Internet communication channel between the at least one first event socket of the at least one socket server and the second viewer client device of the first plurality of viewer devices; and

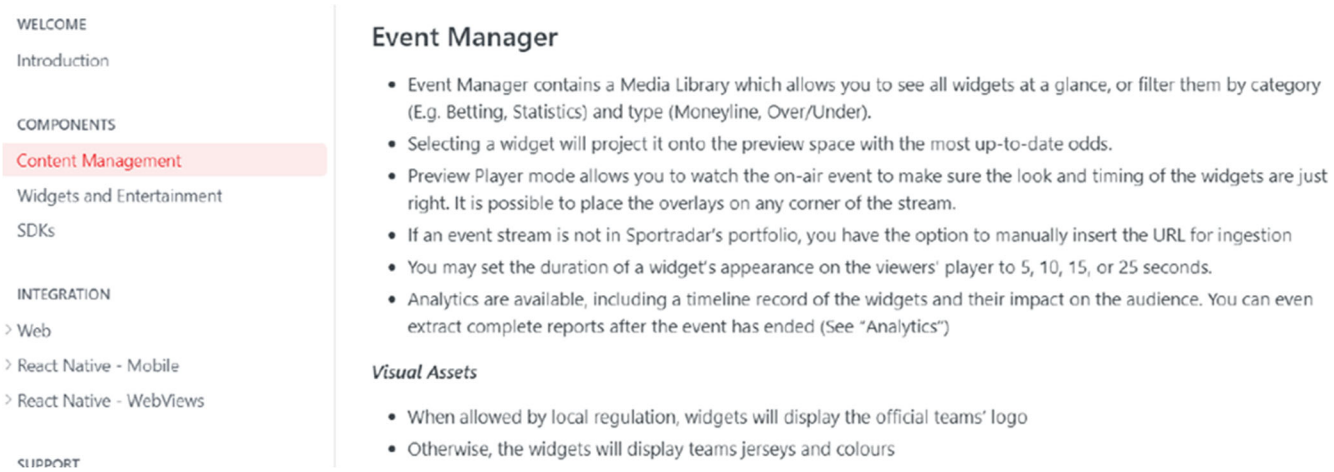
transmits at least the second event information to the second viewer client device of the second plurality of viewer client devices via a fourth event information Internet communication channel between the at least one second event socket of the at least one socket server and the second viewer client device of the second plurality of viewer devices.

66. The Accused Products include each element of claims 19 and 20 of the '687 Patent. To the extent the preamble is construed to be limiting, the Accused Products include *a system for providing a first plurality of copies of a first live stream of digital content relating to a first live sporting event to a first plurality of viewer client devices, and for providing a second plurality of copies of a second live stream of digital content relating to a second live sporting event to a second plurality of viewer client devices*, as further explained below. For example, emBET offers "hundreds of individual live event streams every day," which allows multiple customers to "offer them simultaneously throughout the day."



(*See*, PANDA-SR_000029 at PANDA-SR_000034, Audio-Visual Brochure.)

67. The Accused Products include *a plurality of media sources to receive the first live stream of digital content and the second live stream of digital content*. For example, Sportradar maintains "the largest video-streaming portfolio in betting" to power the emBET. (*See*, PANDA-SR_000029 at PANDA-SR_000034, Audio-Visual Brochure.) In addition, emBET manages the various available sporting event streams in Sportradar's portfolio.

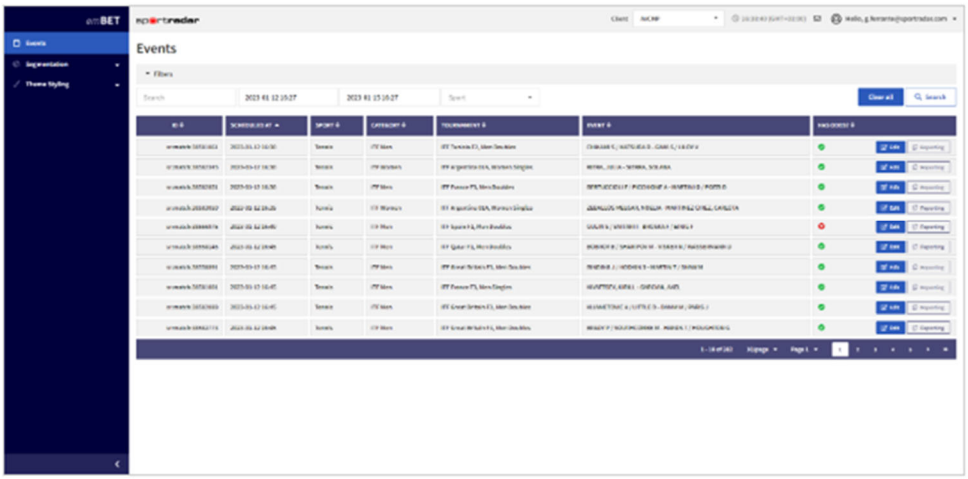


(*See*, PANDA-SR_000038-PANDA-SR_000039, https://embet.readme.io/docs/content-management#event-manager.)

68. Furthermore, the emBET Events listing page lists "[a]ll the events in scope [that] will be loaded by [Sportradar's] SDS (Sports Data Service) feed and shown on this page…." Using the links on this page, "[u]sers may either open the Event Manager or extract a past events' report from this page."

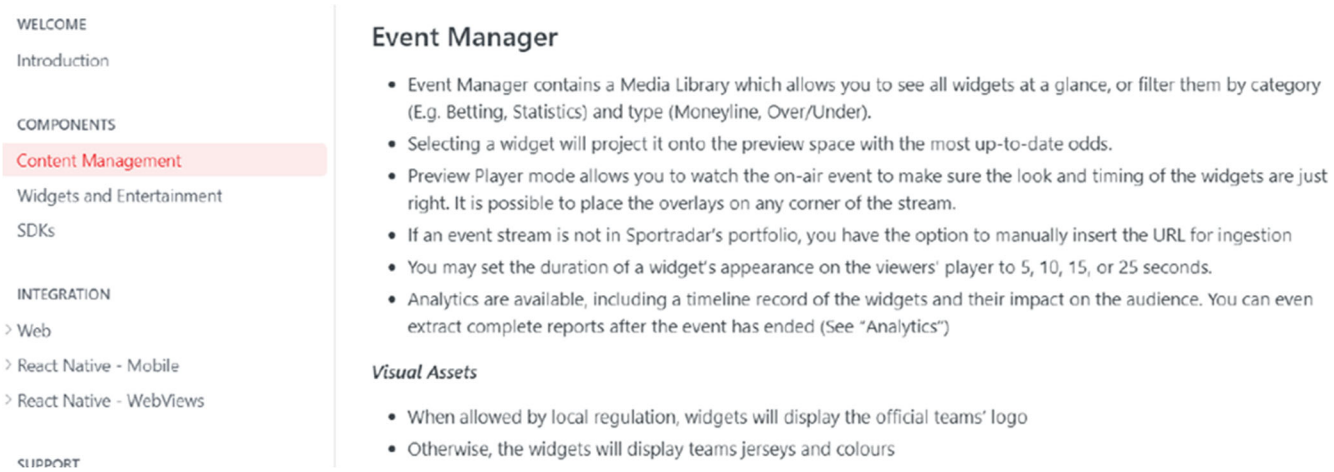
Events Listing

- This is the main page of the Backend, where an emBET user can find all available content to moderate.
- All the events in scope will be loaded by our SDS (Sports Data Service) feed and shown on this page, where possible to filter or search.
- Match start times are automatically updated
- The "Live Now!" signal will appear if a match is on air, and it is possible to filter to see only live events.
- Users may either open the Event Manager or extract a past events' report from this page.



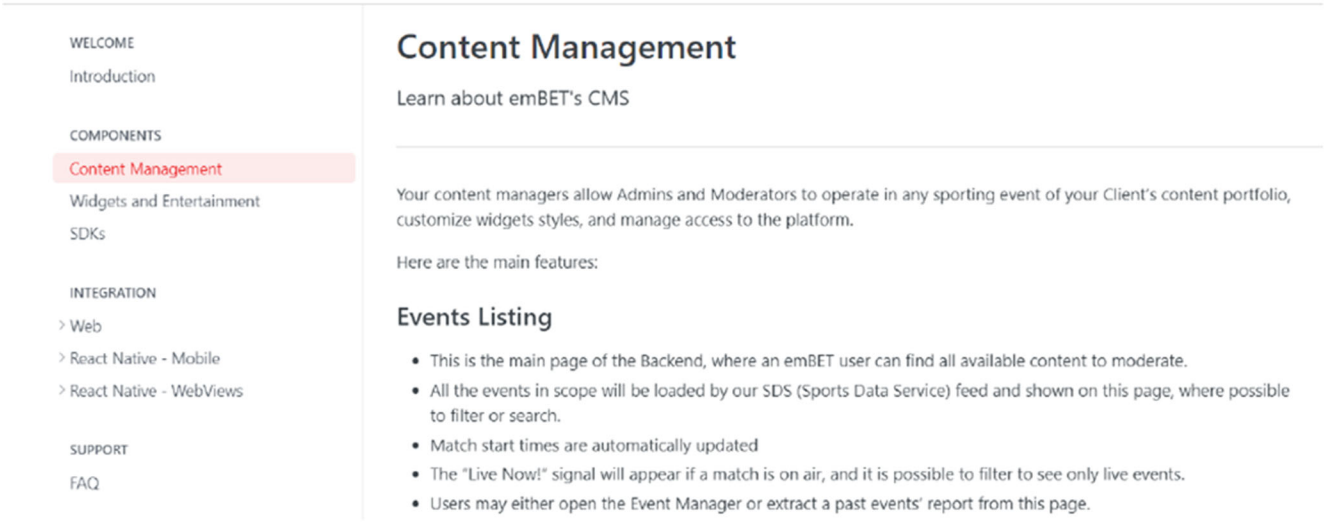
(*See*, PANDA-SR_000038, https://embet.readme.io/docs/content-management.)

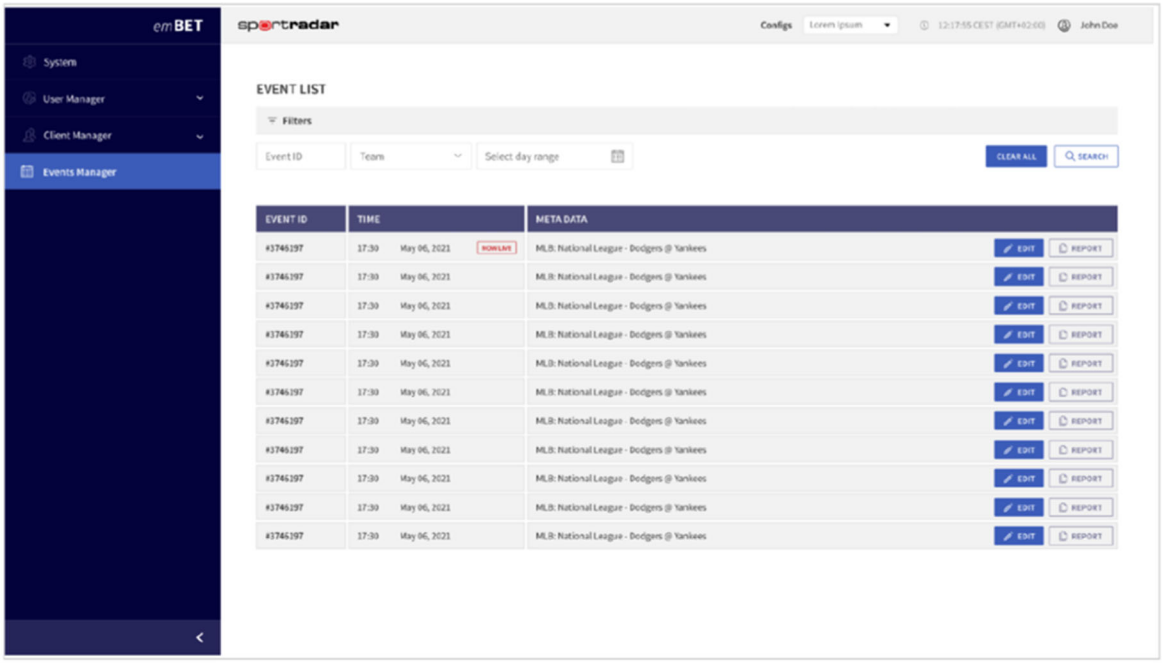
69. The Accused Products also includes *a plurality of media sources to provide a first copy of the first plurality of copies to a first viewer client device of the first plurality of viewer client devices via a first Internet communication channel between the plurality of media sources and the first viewer client device of the first plurality of viewer client devices and provide a first copy of the second plurality of copies to a first viewer client device of the second plurality of viewer client devices via a second Internet communication channel between the plurality of media sources and the first viewer client device of the second plurality of viewer client devices*. For example, as part of the content configuration process, via operation of the emBET SDK, Sportradar allows the emBET customers to request and receive a video feed for those sporting events that are in Sportradar's portfolio. As shown below, emBET's "Event Manager contains a Media Library which allows [customers] to see all widgets at a glance…."



(*See*, PANDA-SR_000038-PANDA-SR_000039, https://embet.readme.io/docs/content-management#event-manager.)

70. In addition, emBET Content Management tool allows an emBET customer (*e.g.*, a sportsbook operator and/or media company) to control and arrange how their end-user bettors will see the video display and the graphic overlays of game-related data, including betting data.





(*See*, PANDA-SR_000038, https://embet.readme.io/docs/content-management#events-listing.)

71. The Accused Products also include *a control server to periodically retrieve, via the Internet, first event information germane to the first live sporting event and second event information germane to the second live sporting event at least one socket server communicatively coupled to the control server to receive from the control server at least some of the first event information and at least some of the second event information*. For example, the emBET software sets up "listeners," such as "mainListener" illustrated below, which are blocks of code implemented on the client device. The Listeners react to messages sent from the control server via the socket servers.

```
const mainListener = {
    message: (msg) => {
        msg.message.event === 'program-status-updated' &&
            eventDispatcher(document, msg.message.event, msg.message.payload);
        msg.timetoken && (msg.message.payload.timetoken = msg.timetoken);
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

72. Tracing the code through the "listeners" and down through the event dispatch system shows that the information is provided to display live items (*e.g.*, scores or online gaming information), which are then added and/or modified in response to the controlling instructions received.

```
let LiveTotal = class LiveTotal extends EmbetWidget {};
LiveTotal = __decorate$1([element$1('live-total')], LiveTotal);
let LiveSpread = class LiveSpread extends EmbetWidget {};
LiveSpread = __decorate$1([element$1('live-spread')], LiveSpread);
let LiveMoneyline = class LiveMoneyline extends EmbetWidget {};
LiveMoneyline = __decorate$1([element$1('live-moneyline')], LiveMoneyline);
let LiveAtBat = class LiveAtBat extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('table');
  }
};
LiveAtBat = __decorate$1([element$1('live-at-bat')], LiveAtBat);
let LiveStatsOdds = class LiveStatsOdds extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('stats');
  }
};
LiveStatsOdds = __decorate$1([element$1('live-stats-odds')], LiveStatsOdds);
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

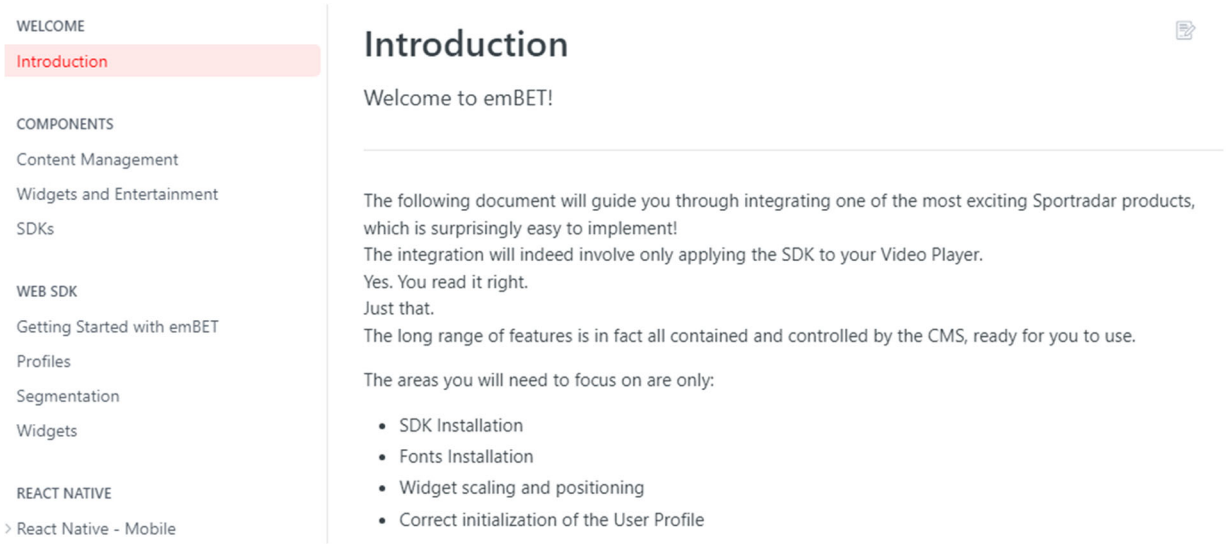
73. Furthermore, emBET provides event information such as "live odds, insights, and stats overlayed on live [sporting event] streams."

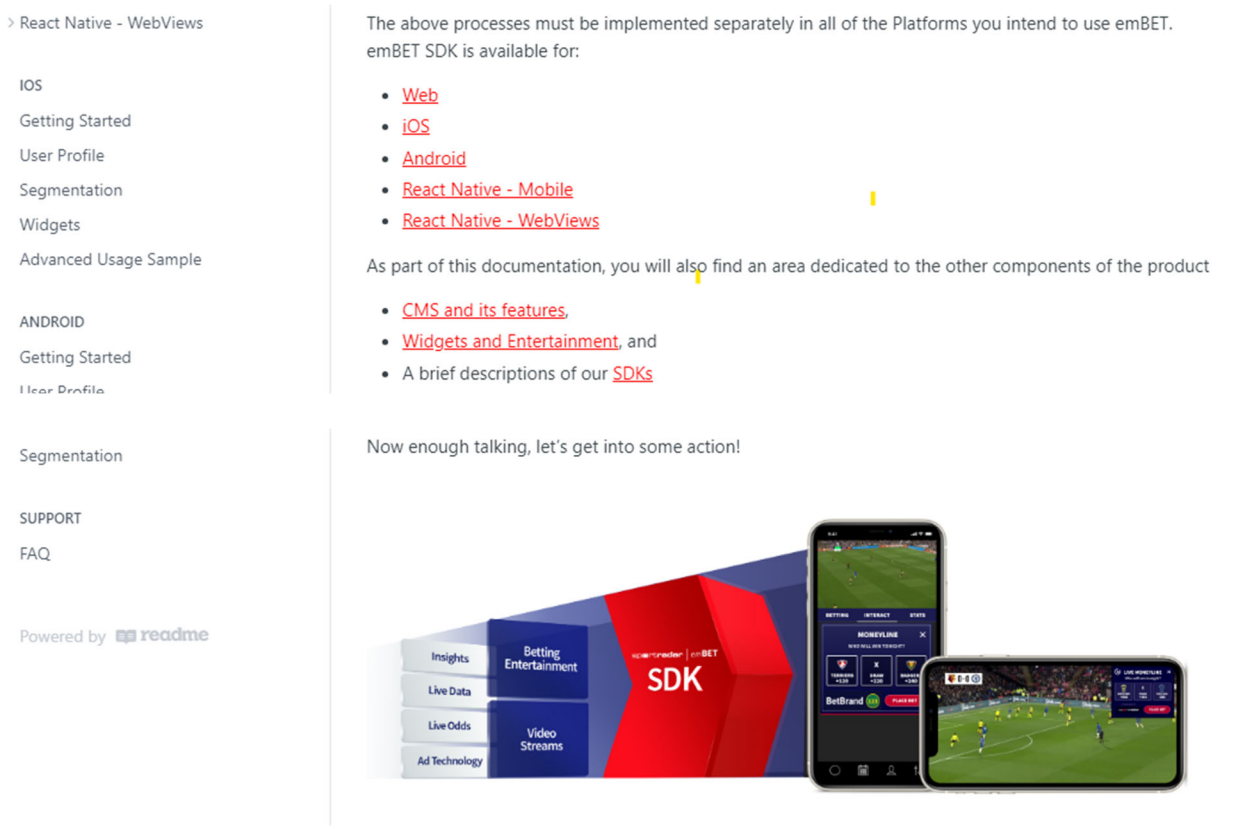
> **What is emBET?**
> It's a piece of software (SDK) that lets rightsholders and media companies show engaging live odds, insights and stats overlayed onlive streams. It's an entertaining interactive toolthat keeps viewers spending and coming back. If your odds feature in these emBET overlays you'll attract new customers to your sportsbook. The kind of customers who might have never considered placing a live bet otherwise.



(*See*, PANDA-SR_000029 at PANDA-SR_000034, Audio-Visual Brochure.)

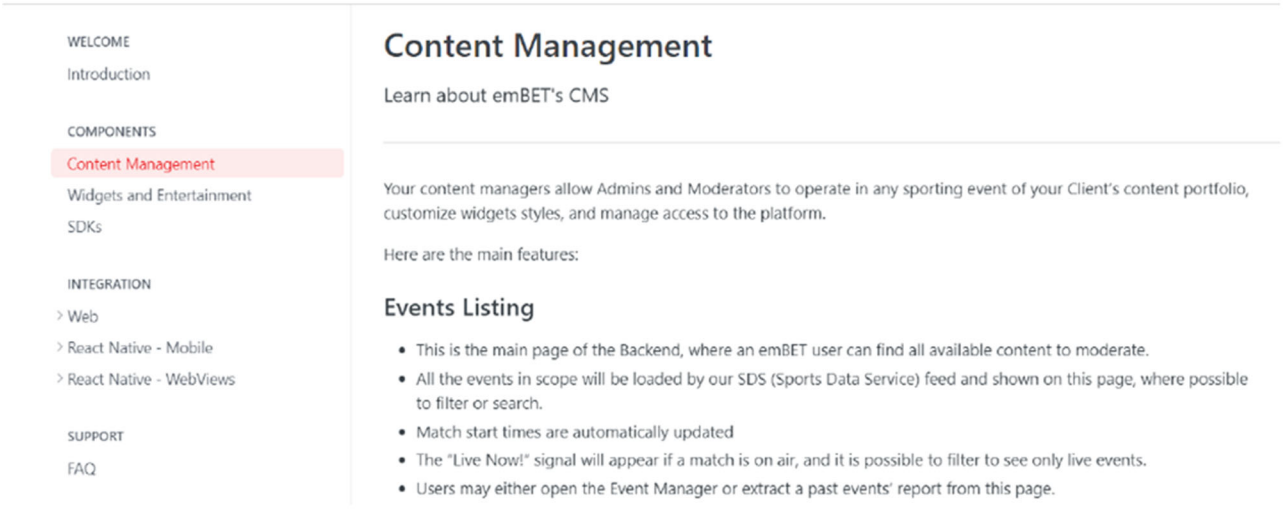
74. Sportradar emBET also provides event information, such as match insights, match odds, and live stats, related to a sporting event, such as a basketball, football, or soccer game, to emBET subscribers or clients. The event information and live stream of the sporting event are transmitted over the Internet and displayed on client devices.

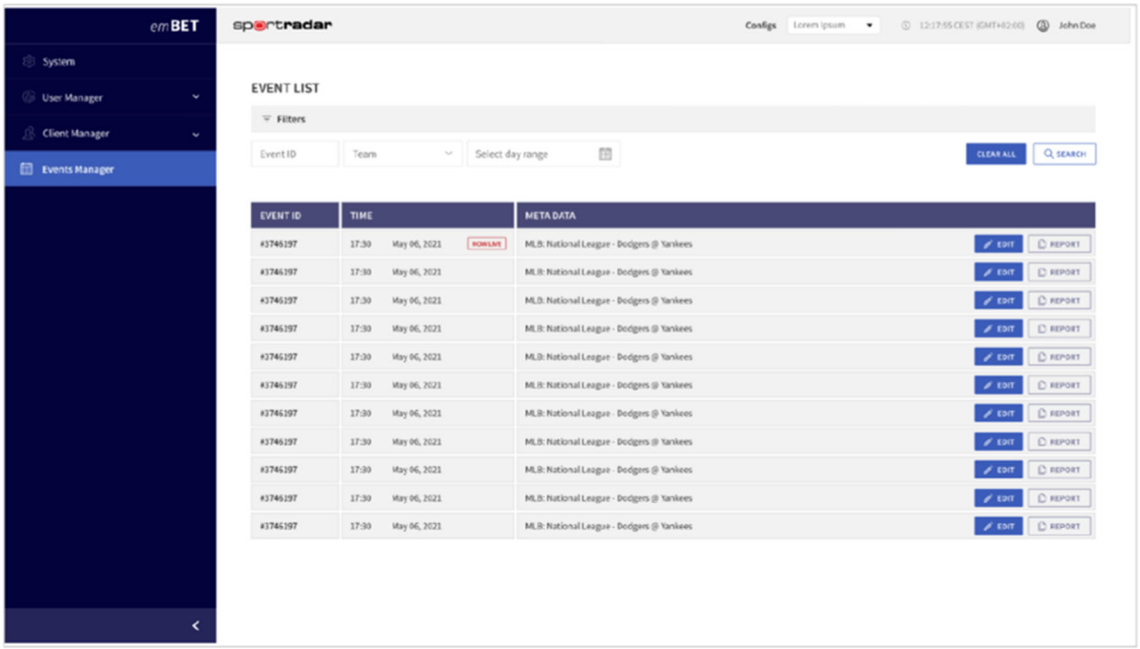




(*See*, https://embet.readme.io/docs.)

75. The Accused Products include *at least one socket server communicatively coupled to the control server to transmit the at least some of the first event information to the first viewer client device of the first plurality of viewer client devices via a third Internet communication channel between at least one first event socket of the at least one socket server and the first viewer client device of the first plurality of viewer devices and transmit the at least some of the second event information to the first viewer client device of the second plurality of viewer client devices via a fourth Internet communication channel between at least one second event socket of the at least one socket server and the first viewer client device of the second plurality of viewer devices.* For example, the emBET Content Management tool allows an emBET purchaser/user (e.g., a sportsbook operator and/or media company) to control and arrange how their end-user bettors will see the video display and the graphic overlays of game-related data, including betting data.





(*See*, PANDA-SR_000038, https://embet.readme.io/docs/content-management#events-listing.)

76. On information and belief, Sportradar emBET uses PubNub, a socket communication service, to transmit event information to viewers. (*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=explore; PANDA-SR_000053-PANDA-SR_000061, https://www.pubnub.com/customers/livelike/.)

Socket.IO is a framework with abstracted concepts that makes network communication more robust, allowing developers to open and maintain a socket connection for bidirectional network communication. It has some great real-time features and uses patterns to make it easy to use. One way to think about it: Socket.IO is to networking as jQuery is to HTML/JavaScript.

How Are PubNub and Socket.IO Connected?

As we said earlier, Socket.IO is a framework that enables you to open and maintain a socket connection and stream data bidirectionally, and provides some pretty great and easy-to-use design patterns.

However, building out a Socket.IO application requires you to host and maintain your own cluster of servers. Building a Socket.IO application on top of PubNub removes the need to operate and run your own server cluster.

Essentially, PubNub removes the need for a server backend. You can do some pretty cool real-time things with Socket.IO, but as your app user base grows, deploying and scaling your real-time backend become important considerations. That's where PubNub comes in.

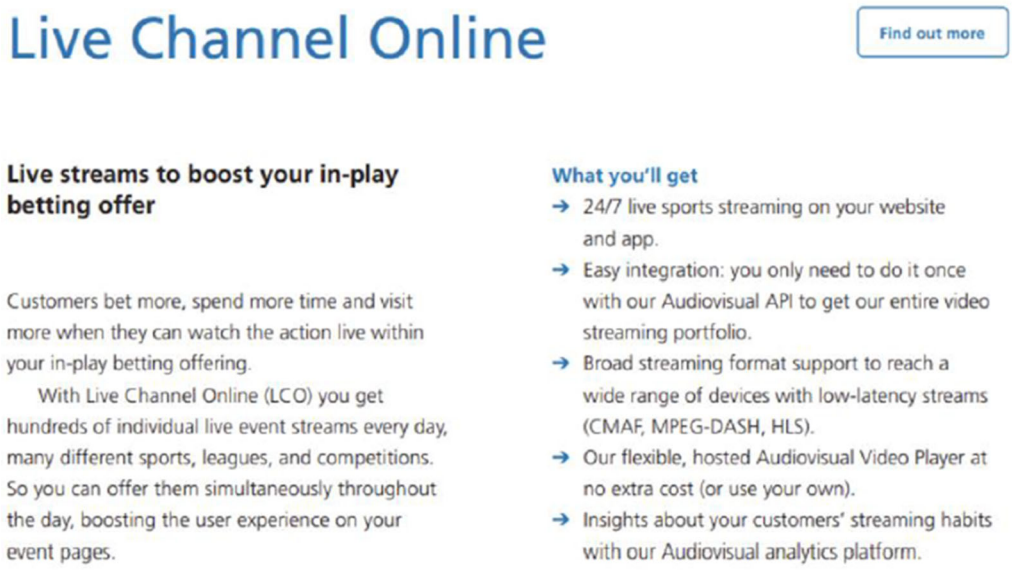
(*See*, PANDA-SR_000046 at PANDA-SR_000047, https://www.pubnub.com/blog/pubnub-takes-socketio-next-level/.)

77. Furthermore, the Sportradar emBET source code shows that a socket server receives first event information from a control server and updates the overlay information. The emBET source code below further shows that clients are directed to connect to an event socket of the socket server (*i.e.*, the channel) to receive the event information.

```
const subscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.subscribe({ channels: [channel] });
const safeSubscribe = (channel) => (pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels) &&
    !(pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels().some((c) => c === channel)) &&
    subscribe(channel);
const unsubscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.unsubscribe({ channels: [channel] });
const addListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.addListener(listener);
const removeListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.removeListener(listener);
const getMessages = (channel, opts = params({ count: 25, end: undefined, start: undefined })) => new Promise((res, rej) => {
    pubnub === null || pubnub === void 0 ? void 0 : pubnub.fetchMessages({
        channels: [channel],
        count: opts.count,
        stringifiedTimeToken: true,
        start: opts.start,
        end: opts.end,
        includeMessageActions: true,
    }, (status, response) => (status.error ? rej(status) : res(response)));
});
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

78. The Accused Products also include *the plurality of media sources to provide a second copy of the first plurality of copies to a second viewer client device of the first plurality of viewer client devices via a third video Internet communication channel between the plurality of media sources and the second viewer client device of the first plurality of viewer client devices and provide a second copy of the second plurality of copies to a second viewer client device of the second plurality of viewer client devices via a fourth video Internet communication channel between the plurality of media sources and the second viewer client device of the second plurality of viewer client devices*. For example, Sportradar emBET platform supports multiple users viewing the same sporting event simultaneously.



(*See*, PANDA-SR_000029 at PANDA-SR_000034, https://goto.sportradar.com/pdf_br_AV_brochure.)

79. The Accused Products also include *the at least one socket server to transmit at least the first event information to the second viewer client device of the first plurality of viewer client devices via a third event information Internet communication channel between the at least one first event socket of the at least one socket server and the second viewer client device of the first plurality of viewer devices and transmit at least the second event information to the second viewer client device of the second plurality of viewer client devices via a fourth event information Internet communication channel between the at least one second event socket of the at least one socket server and the second viewer client device of the second plurality of viewer devices*. For example, Sportradar emBET supports multiple users accessing event information of the first live sporting event by establishing a one-to-many socket connection (*i.e.*, the channel) that multiple users can access. The client establishes an unauthenticated, one-to-many connection to a socket channel, which then relays event information.

```
const subscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.subscribe({ channels: [channel] });
const safeSubscribe = (channel) => (pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels) &&
    !(pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels().some((c) => c === channel)) &&
    subscribe(channel);
const unsubscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.unsubscribe({ channels: [channel] });
const addListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.addListener(listener);
const removeListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.removeListener(listener);
const getMessages = (channel, opts = params({ count: 25, end: undefined, start: undefined })) => new Promise((res, rej) => {
    pubnub === null || pubnub === void 0 ? void 0 : pubnub.fetchMessages({
        channels: [channel],
        count: opts.count,
        stringifiedTimeToken: true,
        start: opts.start,
        end: opts.end,
        includeMessageActions: true,
    }, (status, response) => (status.error ? rej(status) : res(response)));
});
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

80. In addition, tracing the code through the "listeners" and down through the event dispatch system, it can be seen that live display items (*e.g.*, the first event information and the online gaming information germane to the first sporting event) are added in response to data sent via the one-to-many socket connection.

```
const mainListener = {
    message: (msg) => {
        msg.message.event === 'program-status-updated' &&
            eventDispatcher(document, msg.message.event, msg.message.payload);
        msg.timetoken && (msg.message.payload.timetoken = msg.timetoken);
```

```
let LiveTotal = class LiveTotal extends EmbetWidget {};
LiveTotal = __decorate$1([element$1('live-total')], LiveTotal);
let LiveSpread = class LiveSpread extends EmbetWidget {};
LiveSpread = __decorate$1([element$1('live-spread')], LiveSpread);
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LiveMoneyline = __decorate$1([element$1('live-moneyline')], LiveMoneyline);
let LiveAtBat = class LiveAtBat extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('table');
  }
};
LiveAtBat = __decorate$1([element$1('live-at-bat')], LiveAtBat);
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  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('stats');
  }
};
LiveStatsOdds = __decorate$1([element$1('live-stats-odds')], LiveStatsOdds);
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

81. Each claim in the ’687 Patent recites an independent invention. Neither claims 19 and 20, described above, nor any other individual claim is representative of all claims in the ’687 Patent.

82. Defendant has been aware of the ’687 Patent since at least the filing of this Complaint. Further, Plaintiff provided affirmative notice of the ’687 Patent to Defendant by sending a letter on October 4, 2023, informing Defendant of its infringement of the ’687 Patent. Additionally, Plaintiff has met with and had communications with executives at Sportradar since 2018.

83. Defendant directly infringes at least claims 19 and 20 of the ’687 Patent, either literally or under the doctrine of equivalents, by making, using, offering to sell and selling the systems described above.

84. Defendant’s partners, customers, and end users of its Accused Products and

corresponding systems and services directly infringe at least claims 19 and 20 of the '687 Patent, literally or under the doctrine of equivalents, at least by using the Accused Products and corresponding systems and services, as described above.

85. Defendant has actively induced and are actively inducing infringement of at least claims 19 and 20 of the '687 Patent with specific intent to induce infringement, and/or willful blindness to the possibility that its acts induce infringement, in violation of 35 U.S.C. § 271(b). For example, Defendant encourages and induces customers to use Sportradar OTT in a manner that infringes claims 19 and 20 of the '687 Patent at least by offering and providing the software and by engaging in activities relating to selling, marketing, advertising, promotion, installation, support, and distribution of the Accused Products.

86. Defendant encourages, instructs, directs, and/or requires third parties—including its certified partners and/or customers—to use the Accused Products in infringing ways.

87. Defendant further encourages and induces its customers to infringe claims 19 and 20 of the '687 Patent: 1) by widely advertising those services, and providing technical support and instructions to users, and 2) through activities relating to marketing, advertising, promotion, installation, support, and distribution of the Accused Products, including its video streaming software, and services in the United States. (*See,* PANDA-SR_000063-PANDA-SR_000065, https://sportradar.com/sports-entertainment/audiovisual/embet/?lang=en-us.)

88. Further, as the entity that provides installation, implementation, and integration of the Accused Products in addition to ensuring the Accused Product remains operational for each customer through ongoing technical support, on information and belief, Defendant and/or Defendant's partners affirmatively aid and abet each customer's use of the Accused Products in a manner that infringes the '687 Patent.

89. Defendant also contributes to the infringement of its partners, customers, and end-users of the Accused Products by providing within the United States or importing into the United States the Accused Products, constituting a material part of the inventions claimed, and not a staple article or commodity of commerce suitable for substantial non-infringing uses.

90. Indeed, as shown above, the Accused Products have no substantial non-infringing uses because the accused functionality, including the one-to-many socket architecture and separate channels for video and event information, is an integral part of the Accused Products and must be performed for the Accused Products to perform their intended purpose. These functionalities are continually running when the system is in use and, on information and belief, cannot be removed or disabled (or, if they could, the system would no longer suitably function for its intended purpose). Moreover, for the same reasons, without the system and components identified above that practice the ’687 Patent, that functionality could not be performed.

91. Additionally, the accused functionality, including the one-to-many socket architecture and separate channels for video and event information, itself has no substantial non-infringing uses because the components, modules and methods identified above are a necessary part of that functionality. For example, without the one-to-many socket architecture, the Accused Products could not effectively synchronize the event information across multiple viewers. These functionalities are continually running when the system is in use and cannot be removed or disabled (or, if they could, the system would no longer suitably function for its intended purpose). Moreover, for the same reasons, without the system and components identified above that practice claimed in the ’687 Patent, that functionality could not be performed.

92. In addition, as shown in the detailed analysis above, the products, systems, modules, and methods provided by Defendant constitutes a material part of the invention—

indeed, they provide all the components, modules, and features that perform the claimed methods and systems. For example, the Accused Products and accused functionalities (e.g., the one-to-many architecture) constitute a material part of the inventions claimed because such architecture is integral to the system as recited in the claims of the '687 Patent. None of these products are staple goods—they are sophisticated and customized video streaming products, methods, and systems.

93. On information and belief, the infringing actions of each partner, customer, and/or end-user of the Accused Products are attributable to Defendant. For example, on information and belief, Defendant directs and controls the activities or actions of its partners or others in connection with the Accused Products by contractual agreement or otherwise requiring partners or others to provide information and instructions to customers who acquire the Accused Products which, when followed, results in infringement. Defendant further directs and controls the operation of devices executing the Accused Products by programming the software which, when executed by a customer or end user, performs the claimed method of at least claims 19 and 20 of the '687 Patent.

94. Plaintiff has suffered and continues to suffer damages, including lost profits, as a result of Defendant's infringement of the '687 Patent. Defendant is therefore liable to Plaintiff under 35 U.S.C. § 284 for damages in an amount that adequately compensates Plaintiff for Defendant's infringement, but no less than a reasonable royalty.

95. Plaintiff will continue to suffer irreparable harm unless this Court preliminarily and permanently enjoins Defendant, its agents, employees, representatives, and all others acting in concert with Defendant from infringing the '687 Patent.

96. Defendant's infringement of the '687 Patent is knowing and willful. Defendant acquired actual knowledge of the '687 Patent at least upon the filing of this Complaint. Further, Plaintiff provided affirmative notice of the '687 Patent to Defendant by sending a letter on October 4, 2023, informing Defendant of its infringement of the '687 Patent.

97. On information and belief, despite Defendant's knowledge of the Asserted Patents and Plaintiff's patented technologies, Defendant made the deliberate decision to sell products and services that it knew infringe the '687 Patent. Defendant's continued infringement of the '687 Patent with knowledge of the '687 Patent constitutes willful infringement.

98. Plaintiff's allegations of direct infringement, indirect infringement, and willful infringement with respect to this patent are further set forth in Exhibits 4-6.

SECOND CAUSE OF ACTION
(INFRINGEMENT OF THE '218 PATENT)

99. Plaintiff realleges and incorporate by reference the allegations of the preceding paragraphs of this Complaint.

100. Defendant has infringed and continue to infringe one or more claims of the '218 Patent in violation of 35 U.S.C. § 271 in this District and elsewhere in the United States and will continue to do so unless enjoined by this Court. The Accused Products, including features of the Sportradar emBet, Sportradar OTT, and Sportradar LCT, at least when used for their ordinary and customary purposes, practice each element of at least claims 1 and 4 of the '218 Patent as demonstrated below.

101. For example, claim 1 of the '218 Patent recites:

> 1. A system for controlling a plurality of viewer client devices to receive first digital content relating to a first sporting event and first event information germane to the first sporting event, the first event information including online gaming information, the system comprising:
>
> A) a control server to periodically retrieve, via the Internet, the first event

information germane to the first sporting event;

B) at least one socket server communicatively coupled to the control server to:

receive from the control server at least the first event information; and

transmit at least some of the first event information, including the online gaming information, to at least a first viewer client device of the plurality of viewer client devices via a first event information Internet communication channel between a first event socket of the at least one socket server and the first viewer client device, wherein the first event socket corresponds to the first event information germane to the first sporting event; and

C) at least one webserver communicatively coupled to the at least one socket server to transmit, to the first viewer client device:

a first Internet address of a first media source to establish a first video Internet communication channel between the first media source and the first viewer client device to carry the first digital content relating to the first sporting event; and

a first socket address of the first event socket to establish the first event information Internet communication channel to carry the online gaming information.

102. Claim 4 of the ’218 Patent, which depends from claim 1, recites:

4. The system of claim 1, wherein:

in C), the at least one webserver transmits, to a second viewer client device of the plurality of viewer client devices, the first socket address of the first event socket to establish a second event information Internet communication channel between the first event socket and the second viewer client device; and

in B), the at least one socket server transmits at least some of the first event information, including the online gaming information germane to the first sporting event, to the second viewer client device via the second event information Internet communication channel, such that the online gaming information is shared in a synchronized manner by the first viewer client device and the second viewer client device.

103. The Accused Products include each element of claims 1 and 4 of the ’218 Patent. To the extent the preamble is construed to be limiting, the Accused Products include *a system for controlling a plurality of viewer client devices to receive first digital content relating to a first sporting event and first event information germane to the first sporting event, the first event*

information including online gaming information. For example, emBET provides "live odds, insights, and stats overlayed on live [sporting event] streams."

> **What is emBET?**
> It's a piece of software (SDK) that lets rightsholders and media companies show engaging live odds, insights and stats overlayed onlive streams. It's an entertaining interactive toolthat keeps viewers spending and coming back. If your odds feature in these emBET overlays you'll attract new customers to your sportsbook. The kind of customers who might have never considered placing a live bet otherwise.



(*See*, PANDA-SR_000029 at PANDA-SR_000034, Audio-Visual Brochure.)

104. emBET provides event information, such as match insights, match odds, and live stats, related to a sporting event, such as a basketball, football, or soccer game, to emBET subscribers or clients. The event information and live stream of the sporting event are transmitted over the Internet and displayed on client devices.

WELCOME
Introduction

COMPONENTS
Content Management
Widgets and Entertainment
SDKs

WEB SDK
Getting Started with emBET
Profiles
Segmentation
Widgets

REACT NATIVE
React Native - Mobile
React Native - WebViews

IOS
Getting Started
User Profile
Segmentation
Widgets
Advanced Usage Sample

ANDROID
Getting Started
User Profile
Segmentation

SUPPORT
FAQ

Powered by readme

Introduction

Welcome to emBET!

The following document will guide you through integrating one of the most exciting Sportradar products, which is surprisingly easy to implement!
The integration will indeed involve only applying the SDK to your Video Player.
Yes. You read it right.
Just that.
The long range of features is in fact all contained and controlled by the CMS, ready for you to use.

The areas you will need to focus on are only:

- SDK Installation
- Fonts Installation
- Widget scaling and positioning
- Correct initialization of the User Profile

The above processes must be implemented separately in all of the Platforms you intend to use emBET.
emBET SDK is available for:

- Web
- iOS
- Android
- React Native - Mobile
- React Native - WebViews

As part of this documentation, you will also find an area dedicated to the other components of the product

- CMS and its features,
- Widgets and Entertainment, and
- A brief descriptions of our SDKs

Now enough talking, let's get into some action!



(*See*, https://embet.readme.io/docs.)



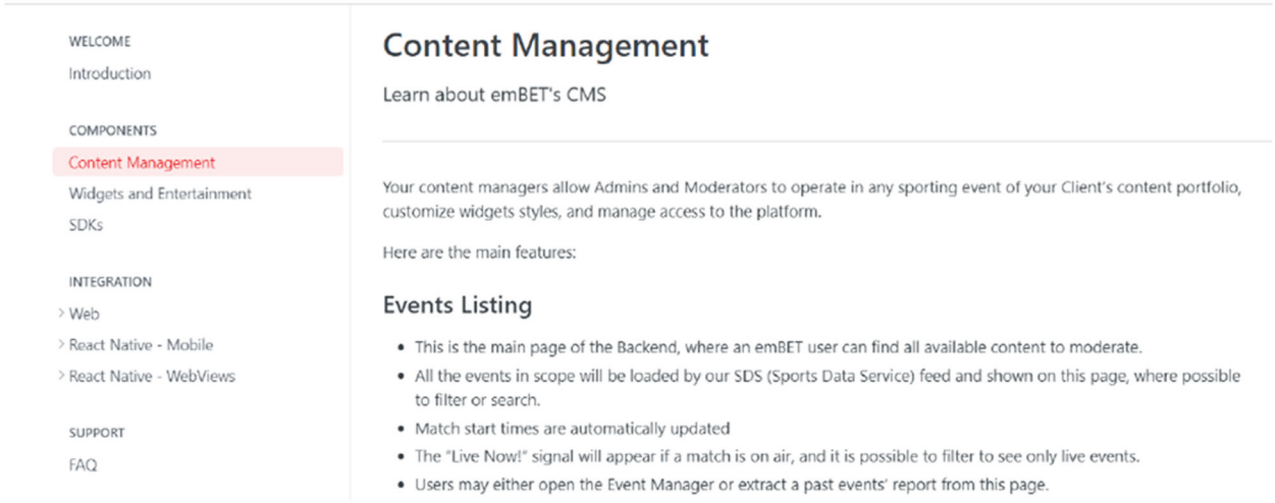
(*See*, PANDA-SR_000102, https://embet.readme.io/docs/widgets-and-entertainment.)

105. The Accused Products include "*a control server to periodically retrieve, via the Internet, the first event information germane to the first sporting event and at least one socket server communicatively coupled to the control server to receive from the control server at least the first event information*." Tracing the source code through "listeners" and down through the event dispatch system reveals that information is provided to display live items (e.g., scores or online gaming information), which are then added and/or modified in response to the controlling instructions received.

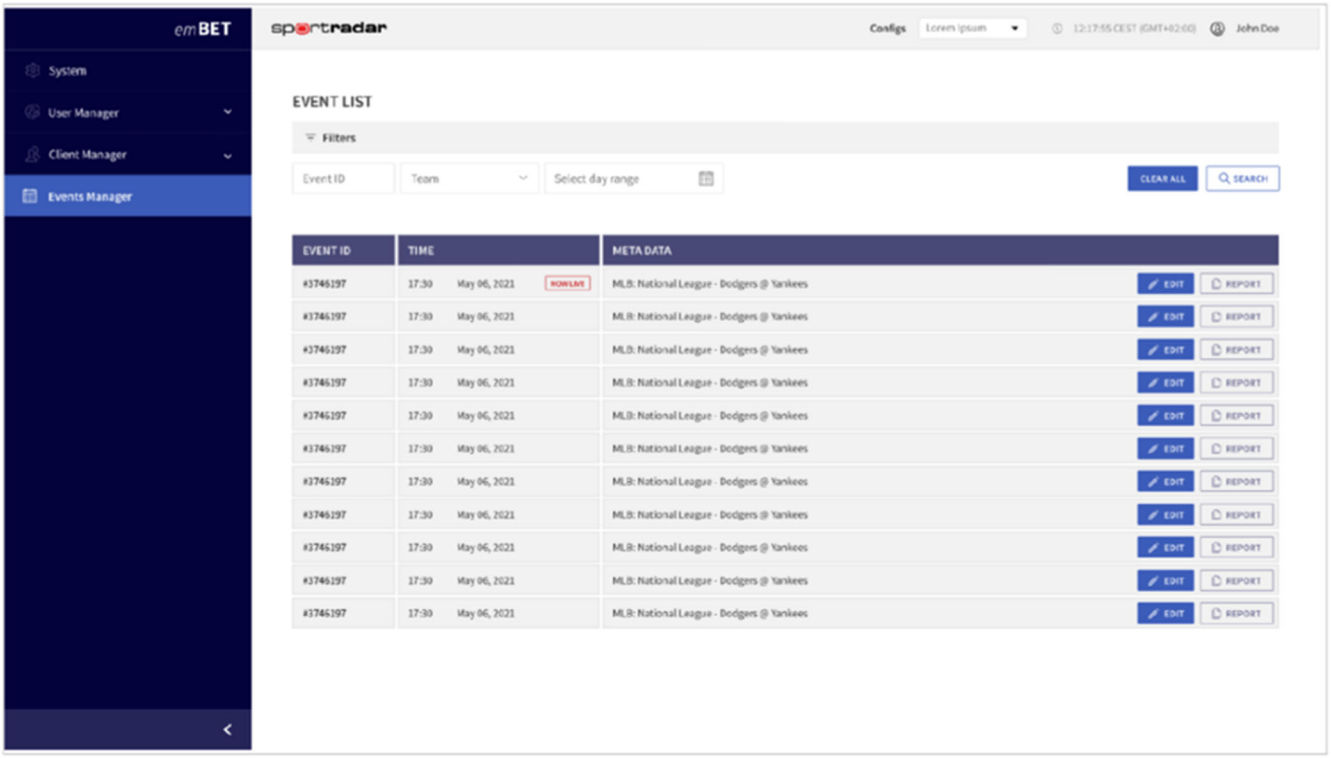
```
let LiveTotal = class LiveTotal extends EmbetWidget {};
LiveTotal = __decorate$1([element$1('live-total')], LiveTotal);
let LiveSpread = class LiveSpread extends EmbetWidget {};
LiveSpread = __decorate$1([element$1('live-spread')], LiveSpread);
let LiveMoneyline = class LiveMoneyline extends EmbetWidget {};
LiveMoneyline = __decorate$1([element$1('live-moneyline')], LiveMoneyline);
let LiveAtBat = class LiveAtBat extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('table');
  }
};
LiveAtBat = __decorate$1([element$1('live-at-bat')], LiveAtBat);
let LiveStatsOdds = class LiveStatsOdds extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('stats');
  }
};
LiveStatsOdds = __decorate$1([element$1('live-stats-odds')], LiveStatsOdds);
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

106. The Accused Products include a socket server to *transmit at least some of the first event information, including the online gaming information, to at least a first viewer client device of the plurality of viewer client devices via a first event information Internet communication channel between a first event socket of the at least one socket server and the first viewer client device, wherein the first event socket corresponds to the first event information germane to the first sporting event*. For example, the emBET Content Management tool allows an emBET purchaser/user (e.g., a sportsbook operator and/or media company) to control and arrange how its end-user bettors will see the video display and the graphic overlays of game-related data, including betting data.

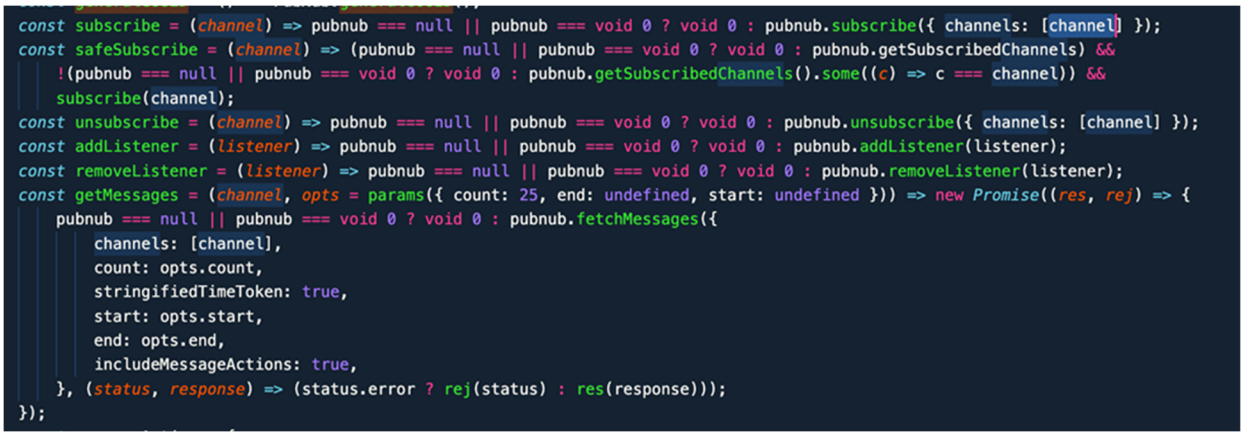


(*See,* PANDA-SR_000038, https://embet.readme.io/docs/content-management#events-listing.)



(*See,* PANDA-SR_000038, https://embet.readme.io/docs/content-management#events-listing.)

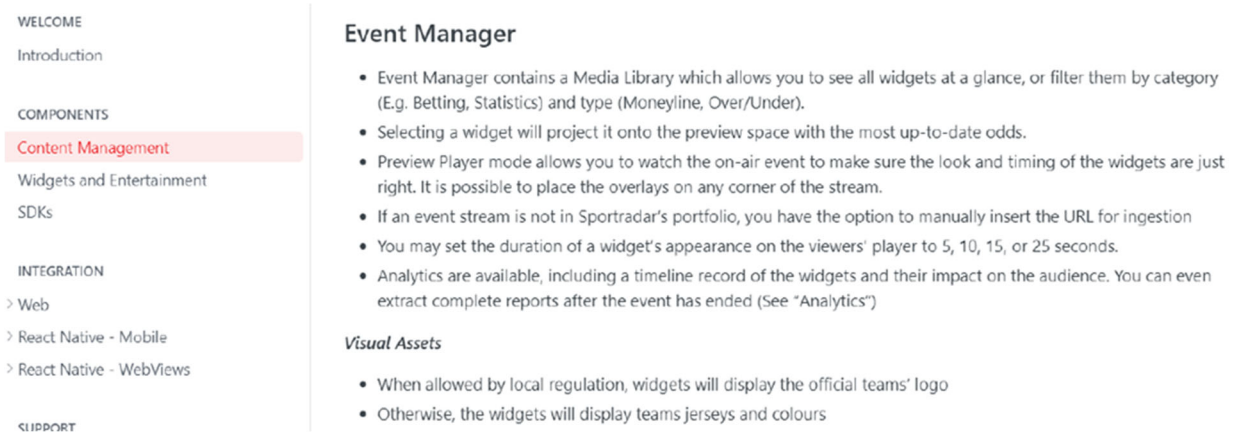
107. The emBET source code further confirms that clients are directed to connect to an event socket of a socket server (e.g., via the channel) to receive the event information.



```
const subscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.subscribe({ channels: [channel] });
const safeSubscribe = (channel) => (pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels) &&
    !(pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels().some((c) => c === channel)) &&
    subscribe(channel);
const unsubscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.unsubscribe({ channels: [channel] });
const addListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.addListener(listener);
const removeListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.removeListener(listener);
const getMessages = (channel, opts = params({ count: 25, end: undefined, start: undefined })) => new Promise((res, rej) => {
    pubnub === null || pubnub === void 0 ? void 0 : pubnub.fetchMessages({
        channels: [channel],
        count: opts.count,
        stringifiedTimeToken: true,
        start: opts.start,
        end: opts.end,
        includeMessageActions: true,
    }, (status, response) => (status.error ? rej(status) : res(response)));
});
```

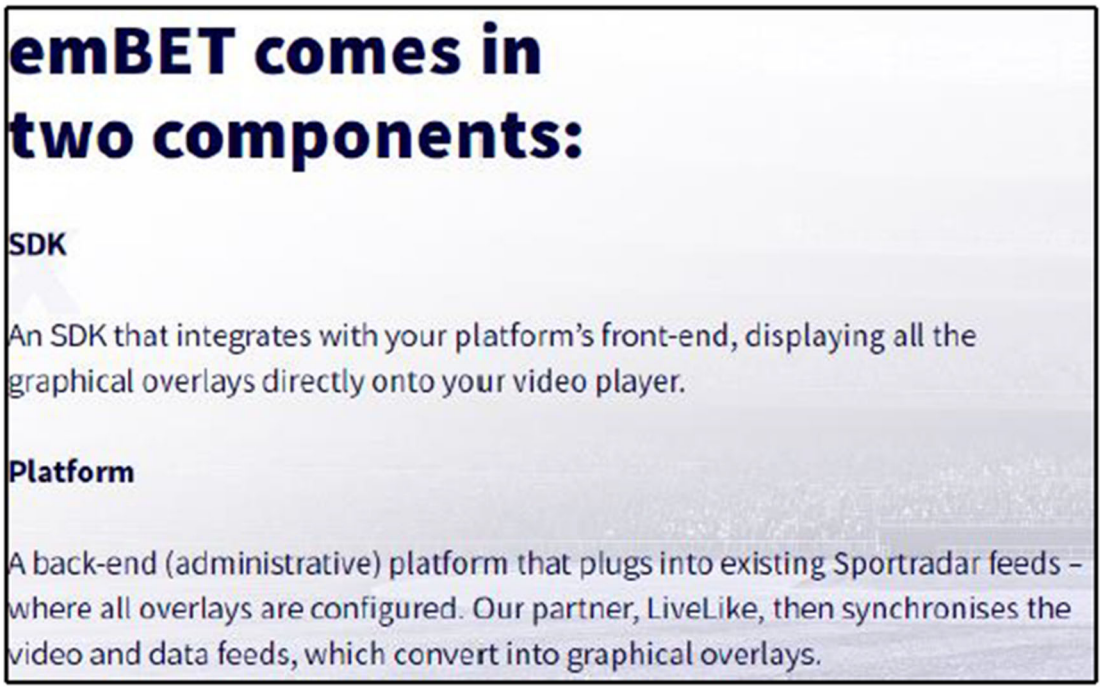
(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

108. The Accused Products include *at least one webserver communicatively coupled to the at least one socket server to transmit, to the first viewer client device, a first Internet address of a first media source to establish a first video Internet communication channel between the first media source and the first viewer client device to carry the first digital content relating to the first sporting event*. For example, as part of the content configuration process, via operation of the emBET SDK, Sportradar allows the emBET purchaser to request a video feed, at least for those sporting events that are in Sportradar's portfolio. As explained below, emBET's "Event Manager contains a Media Library which allows [customers] to see all widgets at a glance…." Further, "[i]f an event stream is not in Sportradar's portfolio, [the customer has] the option to manually insert the URL for ingestion."



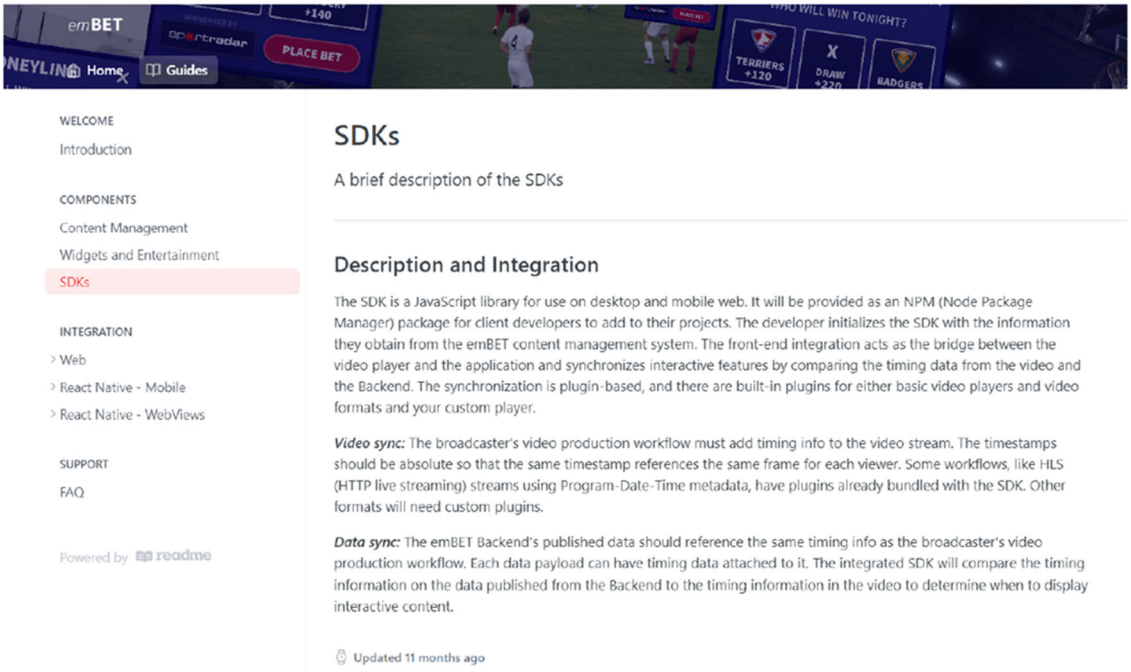
(*See* PANDA-SR_000038-PANDA-SR_000039, https://embet.readme.io/docs/content-management#event-manager.)

109. The Accused Products include at least one webserver to transmit *a first socket address of the first event socket to establish the first event information Internet communication channel to carry the online gaming information*. For example, emBET is offered in two deployment options, SDK and Platform. In both deployment options, a data feed is overlayed on a video feed. Thus, since emBET overlays data graphics onto a video, the video feed and data feed must be provided to the viewer client device on different communication channels, and these two separate feeds are synchronized by the emBET functionality.



(*See,* PANDA-SR_000063 at PANDA-SR_000064, https://sportradar.com/sports-entertainment/audiovisual/embet/?lang=en-us.)

110. As an example, in the SDK option, emBET provides tools for the emBET purchaser to configure how video feeds and data feeds will be displayed on the client devices of end-user bettors. As explained below, the video feed and the data feed must be synchronized. Thus, the emBET SDK allows an emBET purchaser to synchronize separate video and data feeds based on information obtained from the emBET content management system, described above.



(*See,* PANDA-SR_000062, https://embet.readme.io/docs/sdks.)

111. The Accused Products include "*at least one webserver transmits, to a second viewer client device of the plurality of viewer client devices, the first socket address of the first event socket to establish a second event information Internet communication channel between the first event socket and the second viewer client device*."

112. For example, emBET's source code reveals that the client establishes an unauthenticated, one-to-many connection to a socket channel, which then relays event information:

```
const subscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.subscribe({ channels: [channel] });
const safeSubscribe = (channel) => (pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels) &&
    !(pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels().some((c) => c === channel)) &&
    subscribe(channel);
const unsubscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.unsubscribe({ channels: [channel] });
const addListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.addListener(listener);
const removeListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.removeListener(listener);
const getMessages = (channel, opts = params({ count: 25, end: undefined, start: undefined })) => new Promise((res, rej) => {
    pubnub === null || pubnub === void 0 ? void 0 : pubnub.fetchMessages({
        channels: [channel],
        count: opts.count,
        stringifiedTimeToken: true,
        start: opts.start,
        end: opts.end,
        includeMessageActions: true,
    }, (status, response) => (status.error ? rej(status) : res(response)));
});
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

113. The Accused Products include *the at least one socket server [that] transmits at least some of the first event information, including the online gaming information germane to the first sporting event, to the second viewer client device via the second event information Internet communication channel, such that the online gaming information is shared in a synchronized manner by the first viewer client device and the second viewer client device*. For example, tracing the source code through "listeners" and down through the event dispatch system reveals that live display items (e.g., the first event information and the online gaming information germane to the first sporting event) are added in response to data sent via the one-to-many socket connection.

```
const mainListener = {
    message: (msg) => {
        msg.message.event === 'program-status-updated' &&
            eventDispatcher(document, msg.message.event, msg.message.payload);
        msg.timetoken && (msg.message.payload.timetoken = msg.timetoken);
```

```
let LiveTotal = class LiveTotal extends EmbetWidget {};
LiveTotal = __decorate$1([element$1('live-total')], LiveTotal);
let LiveSpread = class LiveSpread extends EmbetWidget {};
LiveSpread = __decorate$1([element$1('live-spread')], LiveSpread);
let LiveMoneyline = class LiveMoneyline extends EmbetWidget {};
LiveMoneyline = __decorate$1([element$1('live-moneyline')], LiveMoneyline);
let LiveAtBat = class LiveAtBat extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('table');
  }
};
LiveAtBat = __decorate$1([element$1('live-at-bat')], LiveAtBat);
let LiveStatsOdds = class LiveStatsOdds extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('stats');
  }
};
LiveStatsOdds = __decorate$1([element$1('live-stats-odds')], LiveStatsOdds);
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

114. Each claim in the ’218 Patent recites an independent invention. Neither claims 1 and 4, described above, nor any other individual claim is representative of all claims in the ’218 Patent.

115. Defendant has been aware of the ’218 Patent since at least the filing of this Complaint. Further, Plaintiff provided affirmative notice of the ’218 Patent to Defendant by sending a letter on October 4, 2023, informing Defendant of its infringement of the ’218 Patent. Additionally, Plaintiff has met with and had communications with executives at Sportradar since 2018.

116. Defendant directly infringes at least claims 1 and 4 of the ’218 Patent, either literally or under the doctrine of equivalents, by making, using, offering to sell and selling the systems described above.

117. Defendant's partners, customers, and end users of its Accused Products and corresponding systems and services directly infringe at least claims 1 and 4 of the '218 Patent, literally or under the doctrine of equivalents, at least by using the Accused Products and corresponding systems and services, as described above.

118. Defendant has actively induced and are actively inducing infringement of at least claims 1 and 4 of the '218 Patent with specific intent to induce infringement, and/or willful blindness to the possibility that its acts induce infringement, in violation of 35 U.S.C. § 271(b). For example, Defendant encourages and induces customers to use Sportradar emBET in a manner that infringes claims 1 and 4 of the '218 Patent at least by offering and providing the software and by engaging in activities relating to selling, marketing, advertising, promotion, installation, support, and distribution of the Accused Products.

119. Defendant encourages, instructs, directs, and/or requires third parties—including its certified partners and/or customers—to use the Accused Products in infringing ways.

120. Defendant further encourages and induces its customers to infringe claims 1 and 4 of the '218 Patent: 1) by widely advertising those services, and providing technical support and instructions to users, and 2) through activities relating to marketing, advertising, promotion, installation, support, and distribution of the Accused Products, including its video streaming software, and services in the United States. (*See,* PANDA-SR_000063-PANDA-SR_000065, https://sportradar.com/sports-entertainment/audiovisual/embet/?lang=en-us.)

121. Further, as the entity that provides installation, implementation, and integration of the Accused Products in addition to ensuring the Accused Product remains operational for each customer through ongoing technical support, on information and belief, Defendant and/or Defendant's partners affirmatively aid and abet each customer's use of the Accused Products in

a manner that infringes the ’218 Patent.

122. Defendant also contributes to the infringement of its partners, customers, and end-users of the Accused Products by providing within the United States or importing into the United States the Accused Products, constituting a material part of the inventions claimed, and not a staple article or commodity of commerce suitable for substantial non-infringing uses.

123. Indeed, as shown above, the Accused Products have no substantial non-infringing uses because the accused functionality, including the one-to-many socket architecture and separate channels for video and event information, is an integral part of the Accused Products and must be performed for the Accused Products to perform their intended purpose. These functionalities are continually running when the system is in use and, on information and belief, cannot be removed or disabled (or, if they could, the system would no longer suitably function for its intended purpose). Moreover, for the same reasons, without the system and components identified above that practice the ’218 Patent, that functionality could not be performed.

124. Additionally, the accused functionality, including the one-to-many socket architecture and separate channels for video and event information, itself has no substantial non-infringing uses because the components, modules and methods identified above are a necessary part of that functionality. For example, without the on-to-many socket architecture, the Accused Products could not effectively synchronize the event information across multiple viewers. These functionalities are continually running when the system is in use and cannot be removed or disabled (or, if they could, the system would no longer suitably function for its intended purpose). Moreover, for the same reasons, without the system and components identified above that practice claimed in the ’218 Patent, that functionality could not be performed.

125. In addition, as shown in the detailed analysis above, the products, systems, modules, and methods provided by Defendant constitute a material part of the invention—indeed, they provide all the components, modules, and features that perform the claimed methods and systems. For example, the Accused Products and accused functionalities (e.g., the one-to-many architecture) constitute a material part of the inventions claimed because such architecture is integral to the system as recited in the claims of the '218 Patent. None of these products are staple goods—they are sophisticated and customized video streaming products, methods, and systems.

126. On information and belief, the infringing actions of each partner, customer, and/or end-user of the Accused Products are attributable to Defendant. For example, on information and belief, Defendant directs and controls the activities or actions of its partners or others in connection with the Accused Products by contractual agreement or otherwise requiring partners or others to provide information and instructions to customers who acquire the Accused Products which, when followed, results in infringement. Defendant further directs and controls the operation of devices executing the Accused Products by programming the software which, when executed by a customer or end user, performs the claimed method of at least claims 1 and 4 of the '218 Patent.

127. Plaintiff has suffered and continues to suffer damages, including lost profits, as a result of Defendant's infringement of the '218 Patent. Defendant is therefore liable to Plaintiff under 35 U.S.C. § 284 for damages in an amount that adequately compensates Plaintiff for Defendant's infringement, but no less than a reasonable royalty.

128. Plaintiff will continue to suffer irreparable harm unless this Court preliminarily and permanently enjoins Defendant, its agents, employees, representatives, and all others acting in concert with Defendant from infringing the '218 Patent.

129. Defendant's infringement of the '218 Patent is knowing and willful. Defendant acquired actual knowledge of the '218 Patent at least upon the filing of this Complaint. Further, Plaintiff provided affirmative notice of the '218 Patent to Defendant by sending a letter on October 4, 2023, informing Defendant of its infringement of the '218 Patent.

130. On information and belief, despite Defendant's knowledge of the Asserted Patents and Plaintiff's patented technologies, Defendant made the deliberate decision to sell products and services that it knew infringe the '218 Patent. Defendant's continued infringement of the '218 Patent with knowledge of the '218 Patent constitutes willful infringement.

131. Plaintiff's allegations of direct infringement, indirect infringement, and willful infringement with respect to this patent are further set forth in Exhibits 7-9.

THIRD CAUSE OF ACTION
(INFRINGEMENT OF THE '697 PATENT)

132. Plaintiff realleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint.

133. Defendant has infringed and continues to infringe one or more claims of the '697 Patent in violation of 35 U.S.C. § 271 in this District and elsewhere in the United States and will continue to do so unless enjoined by this Court. The Accused Products, including features of the Sportradar emBet, Sportradar OTT, and Sportradar LCT, at least when used for their ordinary and customary purposes, practice each element of at least claims 19 and 20 of the '697 Patent as demonstrated below.

134. For example, claim 19 of the '697 Patent recites:

> A system for providing a first plurality of copies of a first broadcaster's live stream of digital content including first video-based commentary about a first live sporting event from a first broadcaster client device to a first plurality of viewer client devices, and for providing a second plurality of copies of a second broadcaster's live stream of digital content including second video-based commentary about a

second live sporting event from a second broadcaster client device to a second plurality of viewer client devices, the system comprising:

A) a plurality of media sources to:

receive the first broadcaster's live stream of digital content and the second broadcaster's live stream of digital content;

provide a first copy of the first plurality of copies to a first viewer client device of the first plurality of viewer client devices via a first Internet communication channel between the plurality of media sources and the first viewer client device of the first plurality of viewer client devices; and

provide a first copy of the second plurality of copies to a first viewer client device of the second plurality of viewer client devices via a second Internet communication channel between the plurality of media sources and the first viewer client device of the second plurality of viewer client devices;

B) a control server to periodically retrieve, via the Internet and from an event information provider, first event information germane to the first live sporting event and second event information germane to the second live sporting event; and

C) at least one socket server communicatively coupled to the control server to:

receive from the control server at least some of the first event information and at least some of the second event information, wherein:

the at least some of the first event information includes first score information for the first sporting event; and

the at least some of the second event information includes second score information for the second sporting event; and

transmit at least the first score information the at least some of the first event information to the first viewer client device of the first plurality of viewer client devices via a third Internet communication channel between at least one first event socket of the at least one socket server and the first viewer client device of the first plurality of viewer devices; and

transmit at least the second score information of the at least some of the second event information to the first viewer client device of the second plurality of viewer client devices via a fourth Internet communication channel between at least one second event socket of the at least one socket

server and the first viewer client device of the second plurality of viewer devices.

20. The system of claim 19, wherein:

in A), the plurality of media sources:

provide a second copy of the first plurality of copies to a second viewer client device of the first plurality of viewer client devices via a third video Internet communication channel between the plurality of media sources and the second viewer client device of the first plurality of viewer client devices; and

provide a second copy of the second plurality of copies to a second viewer client device of the second plurality of viewer client devices via a fourth video Internet communication channel between the plurality of media sources and the second viewer client device of the second plurality of viewer client devices; and

in C), the at least one socket server:

transmits at least the first score information of the first event information to the second viewer client device of the first plurality of viewer client devices via a third event information Internet communication channel between the at least one first event socket of the at least one socket server and the second viewer client device of the first plurality of viewer devices; and

transmits at least the second score information of the second event information to the second viewer client device of the second plurality of viewer client devices via a fourth event information Internet communication channel between the at least one second event socket of the at least one socket server and the second viewer client device of the second plurality of viewer devices.

135. The Accused Products include each element of claims 19 and 20 of the '697 Patent.

To the extent the preamble is construed to be limiting, the Accused Products include *a system for providing a first plurality of copies of a first broadcaster's live stream of digital content including first video-based commentary about a first live sporting event from a first broadcaster client device to a first plurality of viewer client devices, and for providing a second plurality of copies of a second broadcaster's live stream of digital content including second video-based commentary*

about a second live sporting event from a second broadcaster client device to a second plurality of viewer client devices. For example, emBET provides an interactive overlay for video streams (from either Sportradar's event video stream portfolio or an external video source). The overlay includes a display of game-related data and an interface for placing bets.

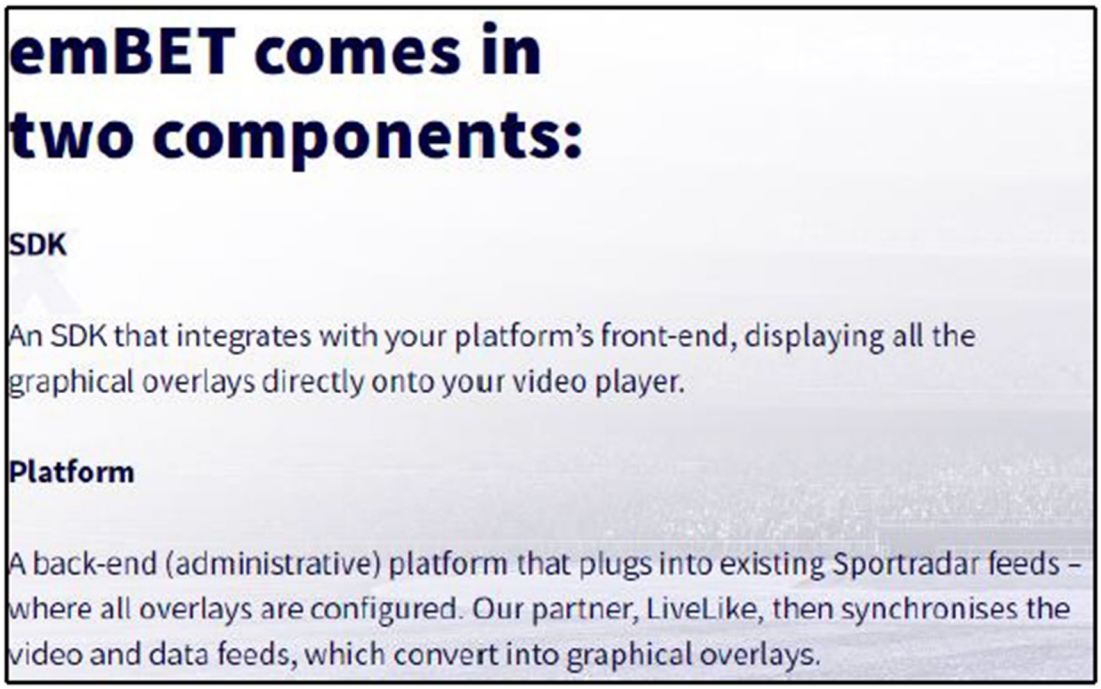
136. On information and belief, Defendant and/or its broadcasting partners provide first and second pluralities of copies of a first and second live stream of digital content including respective video-based commentary about the first and second live sporting events. The emBET system is implemented using an architecture that includes a series of broadcaster media sources to feed live sporting event content to end users and a control server that feeds a socket server information relevant to the sporting event, which the socket server then distributes to viewer client devices to cause them to update their display of information.



(*See,* PANDA-SR_000045, https://sportradar.com/sports-entertainment/content/broadcast-solutions/?lang=en-us.)

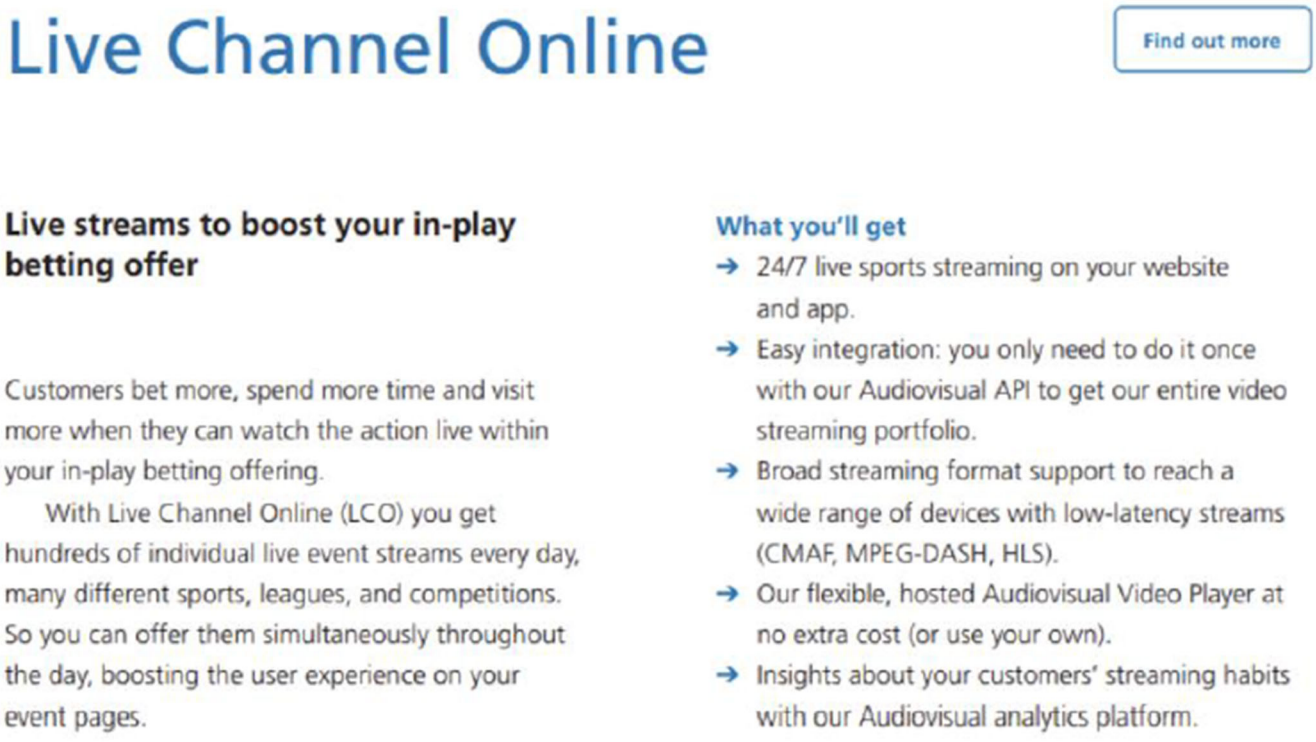
137. On information and belief, both the first and second broadcaster's live streams of digital content include video-based commentary about each of the first and second live sporting events. Two deployment options are available for emBet, "SDK" and "Platform." The SDK option integrates with an emBET purchaser's front-end system, such that the emBET purchaser

can configure how video and data feeds will be displayed on the client devices of end-user bettors. The "Platform" option "plugs into existing Sportradar feeds" (presumably both video feeds and data feeds), and then Sportradar's partner, LiveLike "synchronizes the video and data feeds, which convert into graphical overlays." Thus, while the control and configuration of the data synchronized with the sporting event differs between the two options, both options operate to combine and synchronize live sports data with live sports video, as claimed.



(*See,* PANDA-SR_000063 at PANDA-SR_000064, https://sportradar.com/sports-entertainment/audiovisual/embet/?lang=en-us.)

138. Further, emBET offers "hundreds of individual live event streams every day," which allows customers to "offer them simultaneously throughout the day." Thus, emBET provides first and second live sporting events to a first and second plurality of viewer client devices.



(*See*, PANDA-SR_000006 at PANDA-SR_000020, Product Brochure 2022.)

139. The Accused Products are implemented using *a plurality of media sources.* For example, Sportradar maintains an expansive portfolio of live sporting event video feeds. As described in the Betradar Audio-Visual Brochure in which emBET is introduced, the companion "Live Channel" offerings provide the video engine that powers emBET. As described below, emBET offers "video streams from over 280,0000 live sporting events" from different sports, tournaments, and leagues," which correspond to a plurality of media sources.

Our streaming products

Get more from streaming

Our award-winning Live Channel product family gives you the largest, most diverse live video streaming portfolio in betting. As well as accurate information, betting engagement and match visualisation.

We provide video streams for over 280,000 live sporting events a year, including all Bundesliga matches, the Australian Open, ATP and ITF Tennis tournaments, NBA, MLB, NHL and many of the top events and leagues from 17 different sports.

What you'll get

- Live Channel Online and Live Channel Retail put streams directly into your sportsbook or shops. So your customers get an immediate incentive to bet more, stay longer and come back again and again. And you get to make the most of the number one revenue generator in the industry: in-play betting.
- Go for Live Channel Trading to give your traders an additional fast and accurate source of information during live events.
- Choose Live Channel Promotion to use near-live highlight clips from your video streams as a promotional tool to ultimately increase mobile betting revenues.
- And use our latest product, emBET, to connect your live betting offer with video streams outside of your sportsbook.

(*See,* PANDA-SR_ PANDA-SR_000029 at PANDA-SR_000032, Audio-Visual Brochure.)

140. The Accused Products "*receive the first broadcaster's live stream of digital content and the second broadcaster's live stream of digital content*." For example, emBET manages the various available sporting event streams in Sportradar's portfolio.

WELCOME
Introduction

COMPONENTS
Content Management
Widgets and Entertainment
SDKs

INTEGRATION
Web
React Native - Mobile
React Native - WebViews

SUPPORT

Event Manager

- Event Manager contains a Media Library which allows you to see all widgets at a glance, or filter them by category (E.g. Betting, Statistics) and type (Moneyline, Over/Under).
- Selecting a widget will project it onto the preview space with the most up-to-date odds.
- Preview Player mode allows you to watch the on-air event to make sure the look and timing of the widgets are just right. It is possible to place the overlays on any corner of the stream.
- If an event stream is not in Sportradar's portfolio, you have the option to manually insert the URL for ingestion
- You may set the duration of a widget's appearance on the viewers' player to 5, 10, 15, or 25 seconds.
- Analytics are available, including a timeline record of the widgets and their impact on the audience. You can even extract complete reports after the event has ended (See "Analytics")

Visual Assets

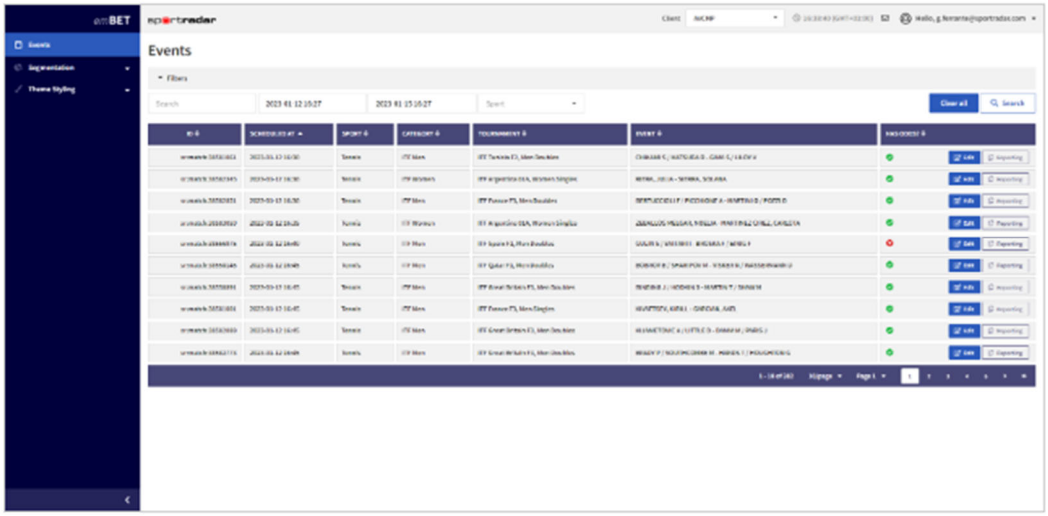
- When allowed by local regulation, widgets will display the official teams' logo
- Otherwise, the widgets will display teams jerseys and colours

(*See,* PANDA-SR_000038-PANDA-SR_000039, https://embet.readme.io/docs/content-management#event-manager.)

141. As another example, the emBET Events listing page demonstrates receipt of the first and second live streams of digital content. The emBET Events listing page is "the main page of [emBET's] Backend," where "[a]ll the events in scope will be loaded by [Sportradar's] SDS (Sports Data Service) feed and shown on this page…." Using the links on this page, "[u]sers may either open the Event Manager or extract a past events' report from this page."

Events Listing

- This is the main page of the Backend, where an emBET user can find all available content to moderate.
- All the events in scope will be loaded by our SDS (Sports Data Service) feed and shown on this page, where possible to filter or search.
- Match start times are automatically updated
- The "Live Now!" signal will appear if a match is on air, and it is possible to filter to see only live events.
- Users may either open the Event Manager or extract a past events' report from this page.

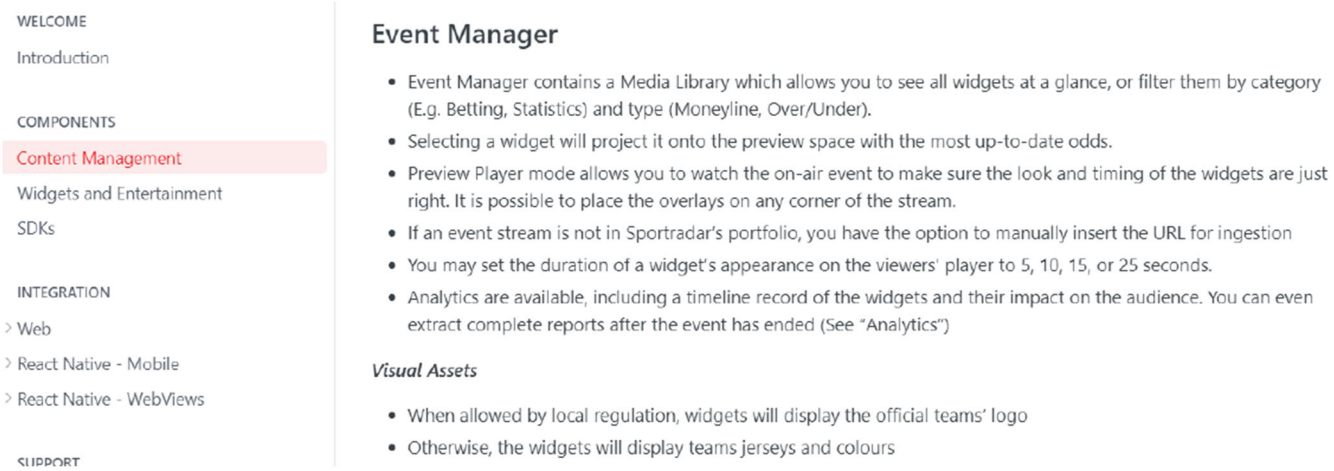


(*See*, PANDA-SR_000038, https://embet.readme.io/docs/content-management.)

142. The Accused Products includes a plurality of media sources to provide *a first copy of the first plurality of copies to a first viewer client device of the first plurality of viewer client devices via a first Internet communication channel between the plurality of media sources and*

the first viewer client device of the first plurality of viewer client devices and provide a first copy of the second plurality of copies to a first viewer client device of the second plurality of viewer client devices via a second Internet communication channel between the plurality of media sources and the first viewer client device of the second plurality of viewer client devices."

143. For example, as part of the content configuration process, via operation of the emBET SDK, Sportradar allows the emBET customers to request a video feed, at least for those sporting events that are in Sportradar's portfolio. As explained below, emBET's "Event Manager contains a Media Library which allows [customers] to see all widgets at a glance…." Further, "[i]f an event stream is not in Sportradar's portfolio, [the customer has] the option to manually insert the URL for ingestion."



(*See*, PANDA-SR_000038-PANDA-SR_000039, https://embet.readme.io/docs/content-management#event-manager.)

144. Further, Sportradar maintains an expansive portfolio of live sporting event video feeds. As described in the Betradar Audio-Visual Brochure in which emBET is introduced, the companion "Live Channel" offerings provide the video engine that powers emBET:

Our streaming products

Get more from streaming

Our award-winning Live Channel product family gives you the largest, most diverse live video streaming portfolio in betting. As well as accurate information, betting engagement and match visualisation.

We provide video streams for over 280,000 live sporting events a year, including all Bundesliga matches, the Australian Open, ATP and ITF Tennis tournaments, NBA, MLB, NHL and many of the top events and leagues from 17 different sports.

What you'll get

- Live Channel Online and Live Channel Retail put streams directly into your sportsbook or shops. So your customers get an immediate incentive to bet more, stay longer and come back again and again. And you get to make the most of the number one revenue generator in the industry: in-play betting.
- Go for Live Channel Trading to give your traders an additional fast and accurate source of information during live events.
- Choose Live Channel Promotion to use near-live highlight clips from your video streams as a promotional tool to ultimately increase mobile betting revenues.
- And use our latest product, emBET, to connect your live betting offer with video streams outside of your sportsbook.

(*See,* PANDA-SR_000006 at PANDA-SR_000020, Product Brochure 2022.)

Live Channel Online

Find out more

Live streams to boost your in-play betting offer

Customers bet more, spend more time and visit more when they can watch the action live within your in-play betting offering.

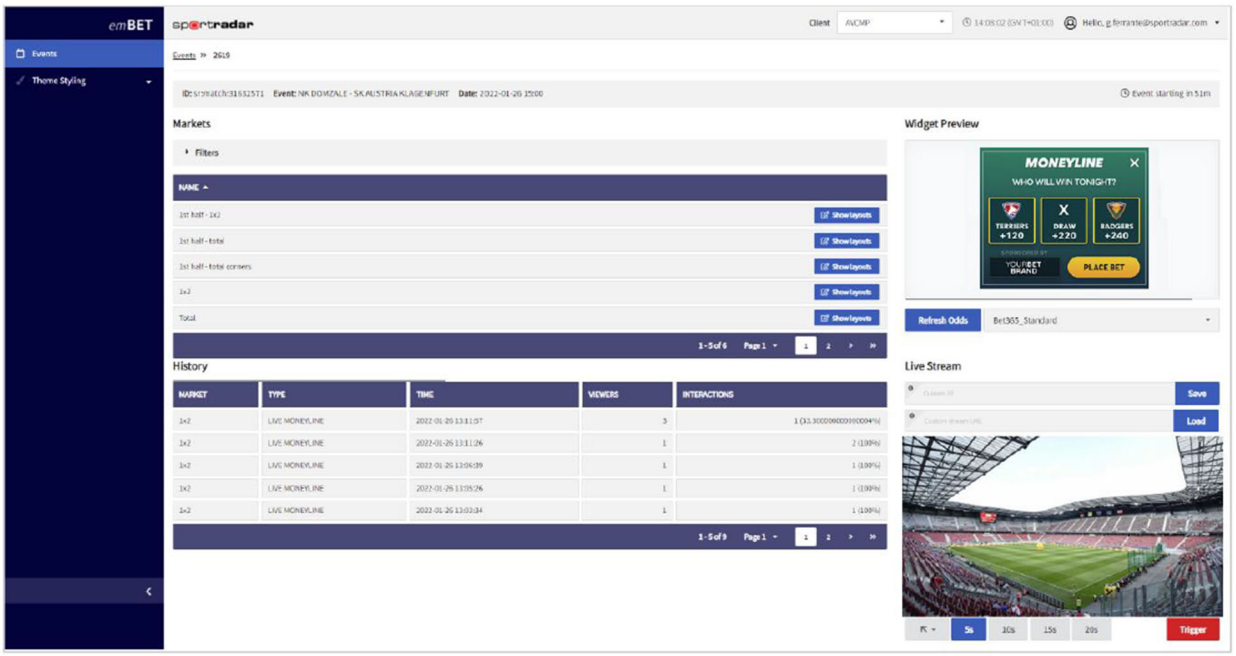
With Live Channel Online (LCO) you get hundreds of individual live event streams every day, many different sports, leagues, and competitions. So you can offer them simultaneously throughout the day, boosting the user experience on your event pages.

What you'll get

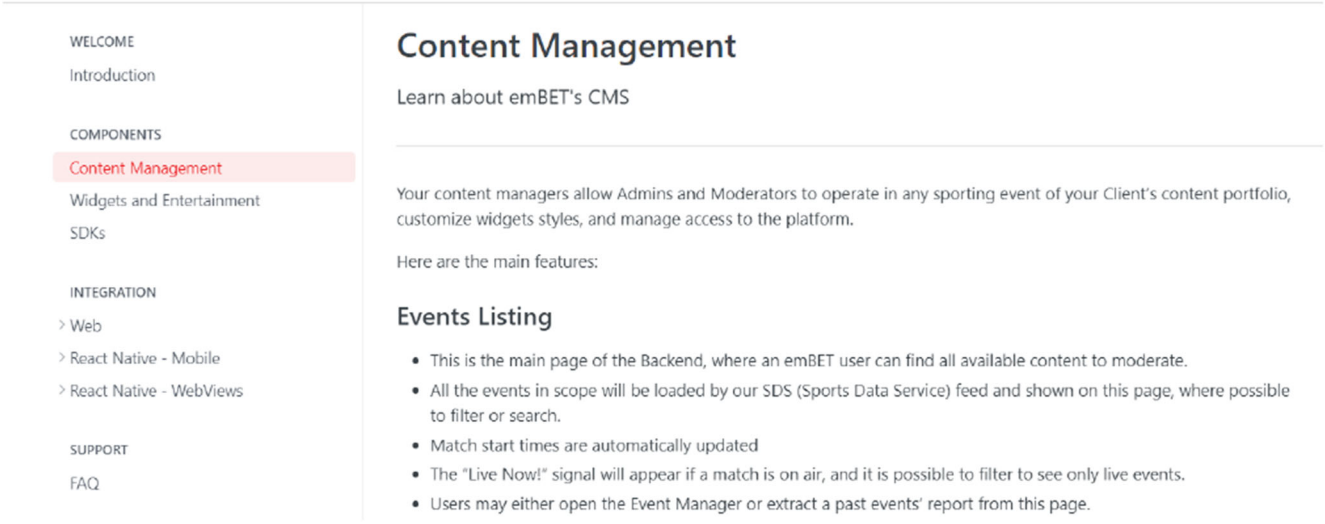
- 24/7 live sports streaming on your website and app.
- Easy integration: you only need to do it once with our Audiovisual API to get our entire video streaming portfolio.
- Broad streaming format support to reach a wide range of devices with low-latency streams (CMAF, MPEG-DASH, HLS).
- Our flexible, hosted Audiovisual Video Player at no extra cost (or use your own).
- Insights about your customers' streaming habits with our Audiovisual analytics platform.

(*See*, PANDA-SR_000029 at PANDA-SR_000032, Audio-Visual Brochure.)

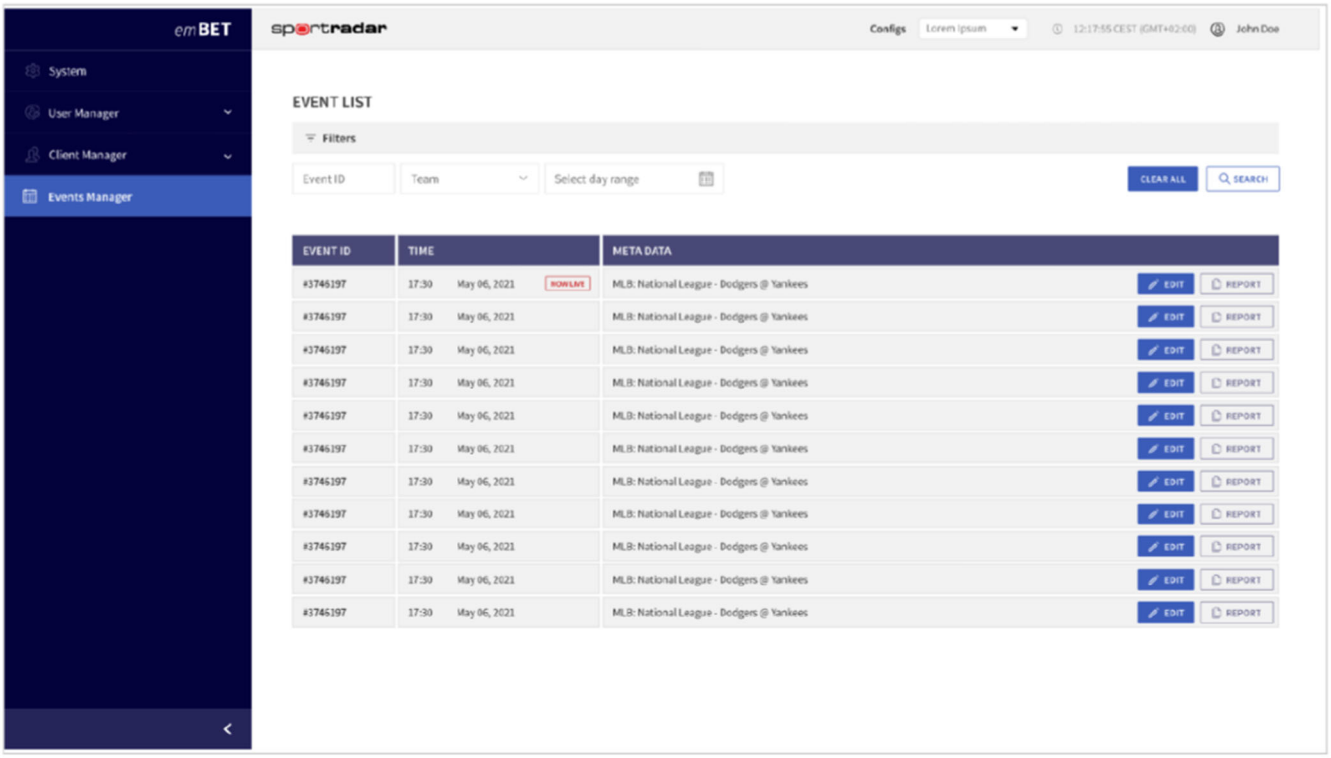
145. The Accused Products also allow clients to set how long the overlay is displayed on the client device's player to 5, 10, 15, or 20 seconds.



146. The emBET Content Management tool allows an emBET purchaser/user (e.g., a sportsbook operator and/or media company) to control and arrange how its end-user bettors will see the video display and the graphic overlays of game-related data, including betting data:



(*See,* PANDA-SR_000038, https://embet.readme.io/docs/content-management#events-listing.)



(*See,* PANDA-SR_000038, https://embet.readme.io/docs/content-management#events-listing.)

147. The Accused Products include "*a control server to periodically retrieve, via the Internet and from an event information provider, first event information germane to the first live sporting event and second event information germane to the second live sporting event.*"

148. For example, the emBET software sets up "listeners," such as "mainListener" below, which are blocks of code implemented at the socket server that cause information received from the control server to be distributed to and control end user device displays.

```
const mainListener = {
    message: (msg) => {
        msg.message.event === 'program-status-updated' &&
            eventDispatcher(document, msg.message.event, msg.message.payload);
        msg.timetoken && (msg.message.payload.timetoken = msg.timetoken);
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

149. Tracing the code through the "listeners" and down through the event dispatch system reveals that the information is provided to display live items (e.g. scores or online gaming information) which are then added and/or modified in response to the controlling instructions received.

```
let LiveTotal = class LiveTotal extends EmbetWidget {};
LiveTotal = __decorate$1([element$1('live-total')], LiveTotal);
let LiveSpread = class LiveSpread extends EmbetWidget {};
LiveSpread = __decorate$1([element$1('live-spread')], LiveSpread);
let LiveMoneyline = class LiveMoneyline extends EmbetWidget {};
LiveMoneyline = __decorate$1([element$1('live-moneyline')], LiveMoneyline);
let LiveAtBat = class LiveAtBat extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('table');
  }
};
LiveAtBat = __decorate$1([element$1('live-at-bat')], LiveAtBat);
let LiveStatsOdds = class LiveStatsOdds extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('stats');
  }
};
LiveStatsOdds = __decorate$1([element$1('live-stats-odds')], LiveStatsOdds);
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

150. Furthermore, emBET provides information such as "live odds, insights, and stats overlayed on live [sporting event] streams":

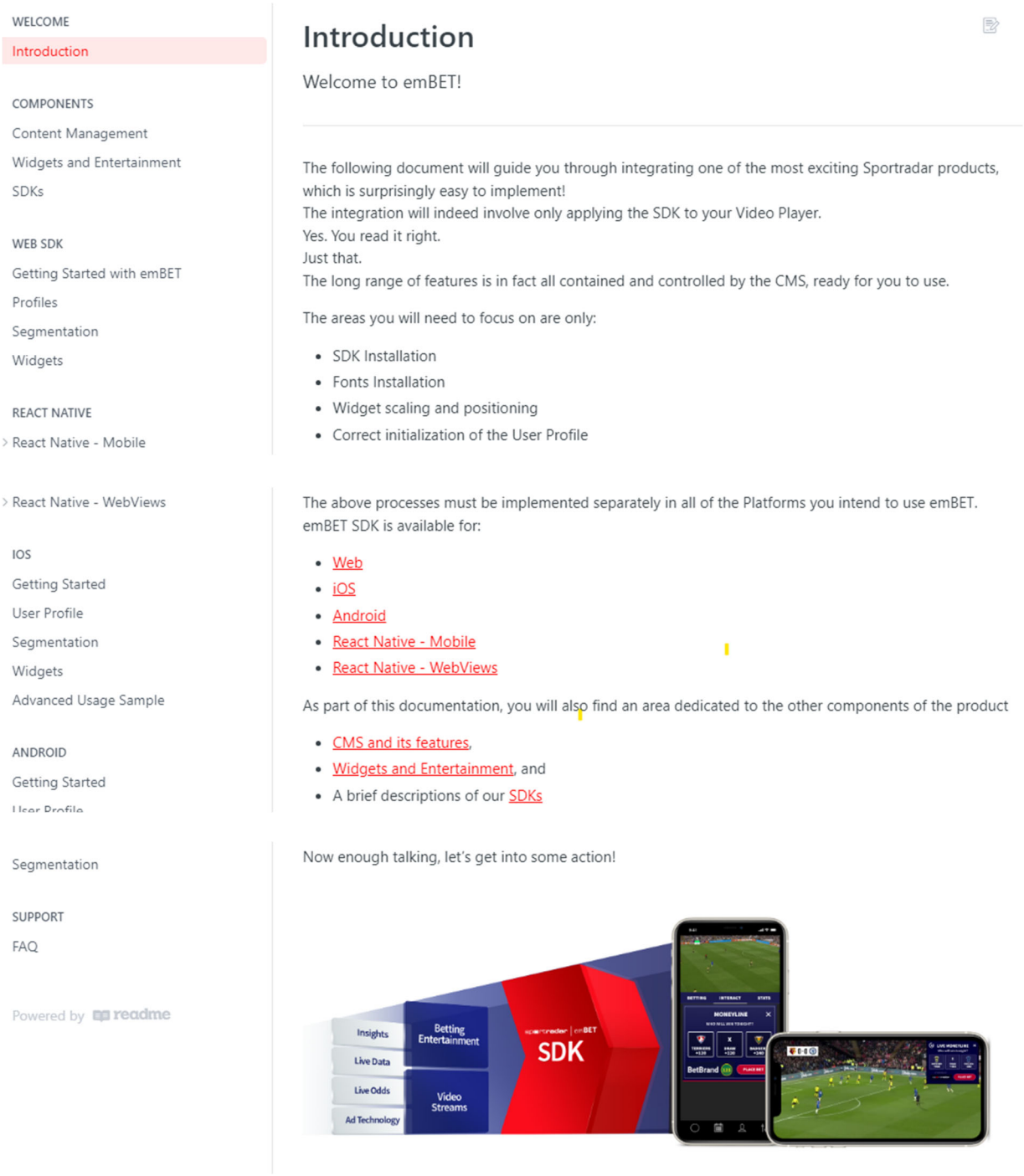
What is emBET?

It's a piece of software (SDK) that lets rightsholders and media companies show engaging live odds, insights and stats overlayed onlive streams. It's an entertaining interactive toolthat keeps viewers spending and coming back. If your odds feature in these emBET overlays you'll attract new customers to your sportsbook. The kind of customers who might have never considered placing a live bet otherwise.



(*See*, PANDA-SR_000029 at PANDA-SR_000034, Audio-Visual Brochure.)

151. Furthermore, emBET provides event information, such as match insights, match odds, and live stats, related to a sporing event, such as a basketball, football, or soccer game, to emBET subscribers or clients. The event information and live stream of the sporting event are transmitted over the Internet and displayed on client devices.



(*See*, https://embet.readme.io/docs.)

152. On information and belief, the Accused Products include "*at least one socket server communicatively coupled to the control server to receive from the control server at least some of the first event information and at least some of the second event information, wherein:*

the at least some of the first event information includes first score information for the first sporting event; and the at least some of the second event information includes second score information for the second sporting event."

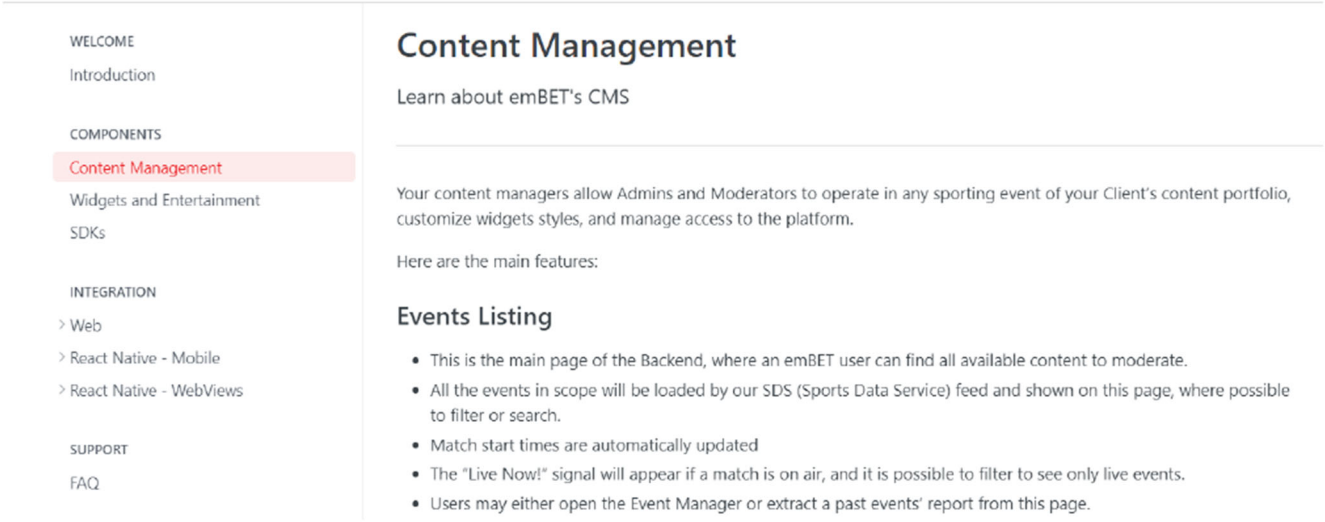
153. For example, emBet provides live stat widgets on its platform.



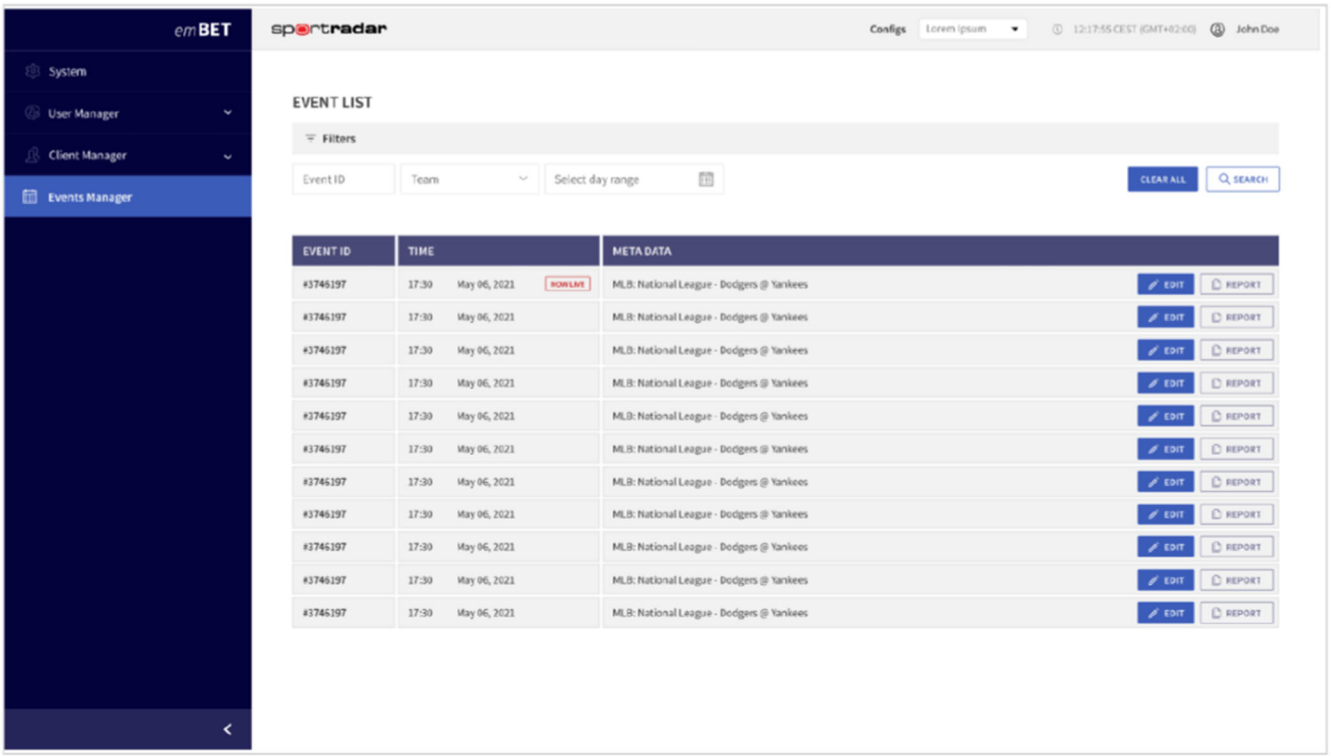
(*See*, PANDA-SR_000102, https://embet.readme.io/docs/widgets-and-entertainment.)

154. The Accused Products include a socket server to "*transmit at least the first score information the at least some of the first event information to the first viewer client device of the first plurality of viewer client devices via a third Internet communication channel between at least one first event socket of the at least one socket server and the first viewer client device of the first plurality of viewer devices and transmit at least the second score information of the at least some of the second event information to the first viewer client device of the second plurality of viewer client devices via a fourth Internet communication channel between at least one second event*

socket of the at least one socket server and the first viewer client device of the second plurality of viewer devices." For example, the emBET Content Management tool allows an emBET purchaser/user (e.g., a sportsbook operator and/or media company) to control and arrange how its end-user bettors will see the video display and the graphic overlays of game-related data, including betting data:

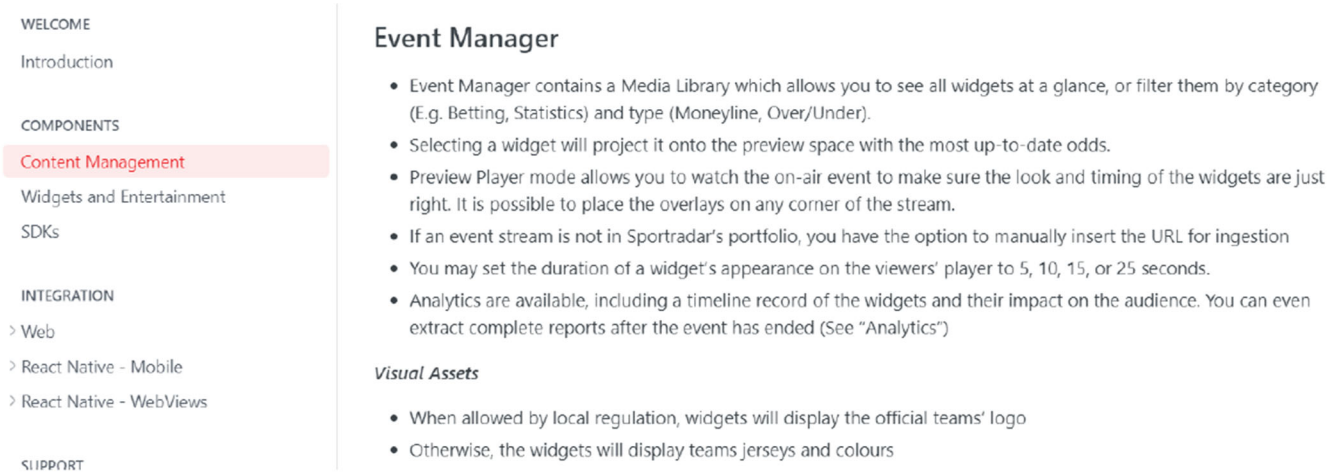


(*See*, PANDA-SR_000038, https://embet.readme.io/docs/content-management#events-listing.)

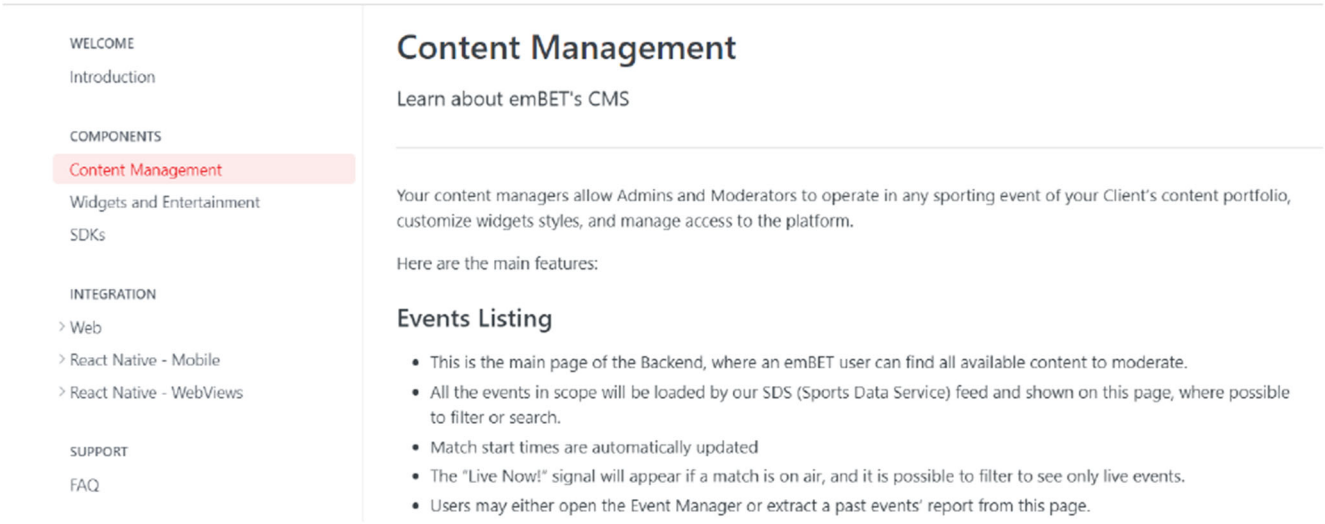


(*See,* PANDA-SR_000038, https://embet.readme.io/docs/content-management#events-listing.)

155. For a given event on the EVENT LIST, emBET's Content Manager also includes an Event Manager:

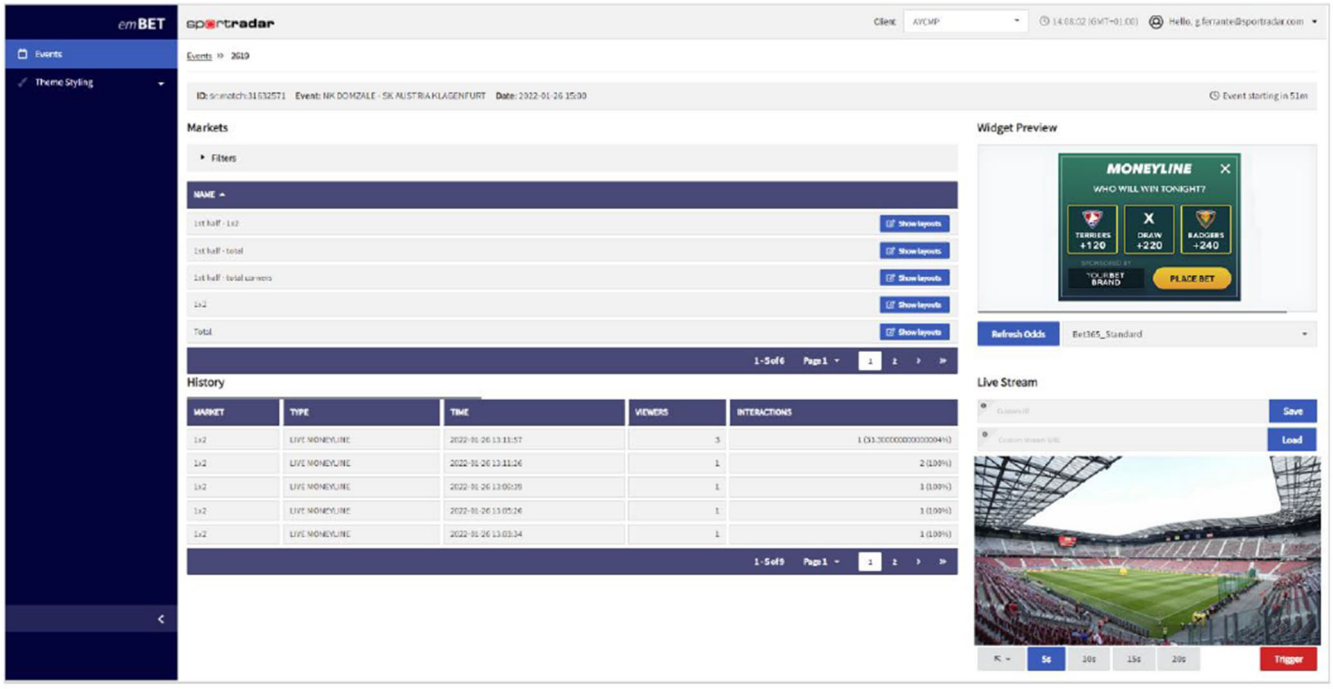


(*See,* PANDA-SR_000038-PANDA-SR_000039, https://embet.readme.io/docs/content-management#event-manager.)

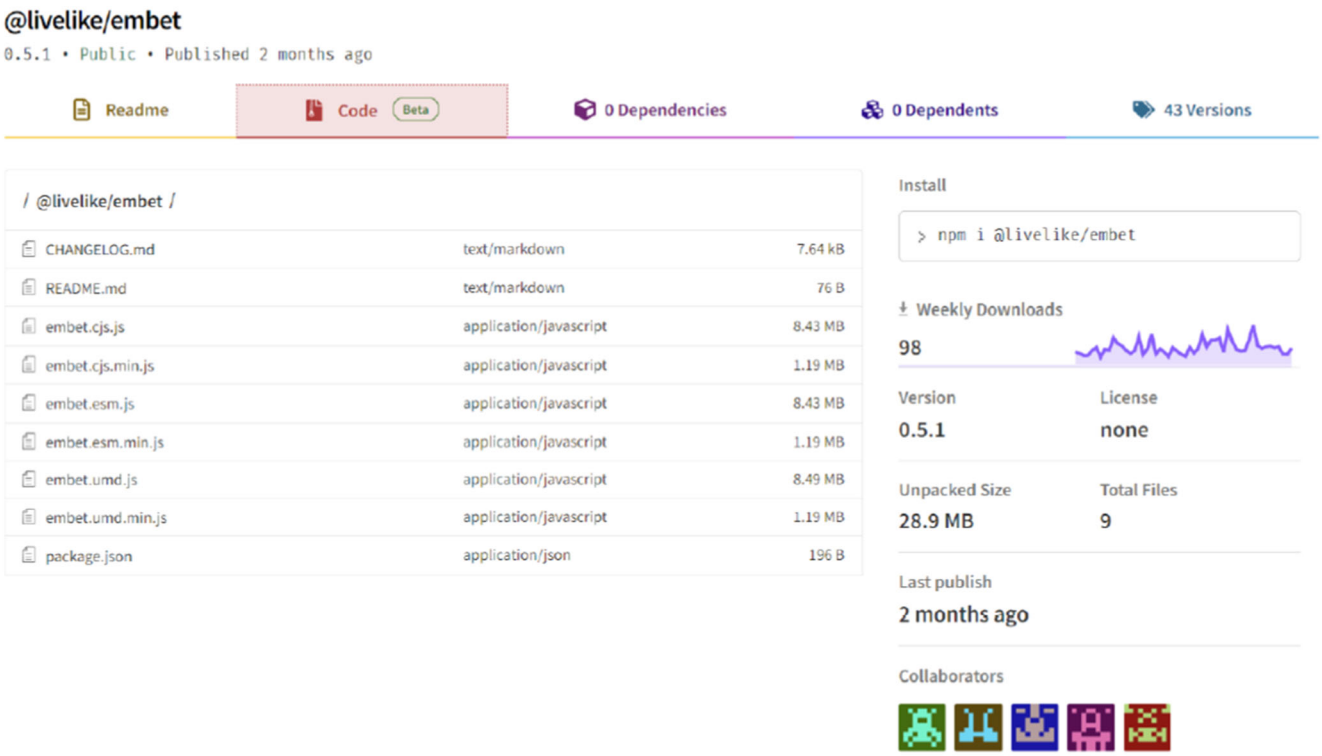


(*See*, PANDA-SR_000038, https://embet.readme.io/docs/content-management#events-listing.)

156. The online gaming information transmitted by emBet includes event ID, event name, event history markets (including 1st half, 1st half-total, 1st half-total corners, etc.), odds, etc.



157. The source code for the emBET SDK, which is publicly available, confirms the use of socket and socket server:



(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

158. LiveLike is implemented on the emBET SDK (in collaboration with or under the direction/control of Sportradar). LiveLike uses PubNub to ensure effective operation of their SDKs and APIs:



(*See*, PANDA-SR_000053 at PANDA-SR_000055, https://www.pubnub.com/customers/livelike/.)

159. PubNub, utilized by emBET, is a socket communication service that allows developers to "open and maintain a socket connection for bidirectional network communication."

> Socket.IO is a framework with abstracted concepts that makes network communication more robust, allowing developers to open and maintain a socket connection for bidirectional network communication. It has some great real-time features and uses patterns to make it easy to use. One way to think about it: Socket.IO is to networking as jQuery is to HTML/JavaScript.

How Are PubNub and Socket.IO Connected?

As we said earlier, Socket.IO is a framework that enables you to open and maintain a socket connection and stream data bidirectionally, and provides some pretty great and easy-to-use design patterns.

However, building out a Socket.IO application requires you to host and maintain your own cluster of servers. Building a Socket.IO application on top of PubNub removes the need to operate and run your own server cluster.

Essentially, PubNub removes the need for a server backend. You can do some pretty cool real-time things with Socket.IO, but as your app user base grows, deploying and scaling your real-time backend become important considerations. That's where PubNub comes in.

(*See*, PANDA-SR_000046 at PANDA-SR_000047, https://www.pubnub.com/blog/pubnub-takes-socketio-next-level/.)

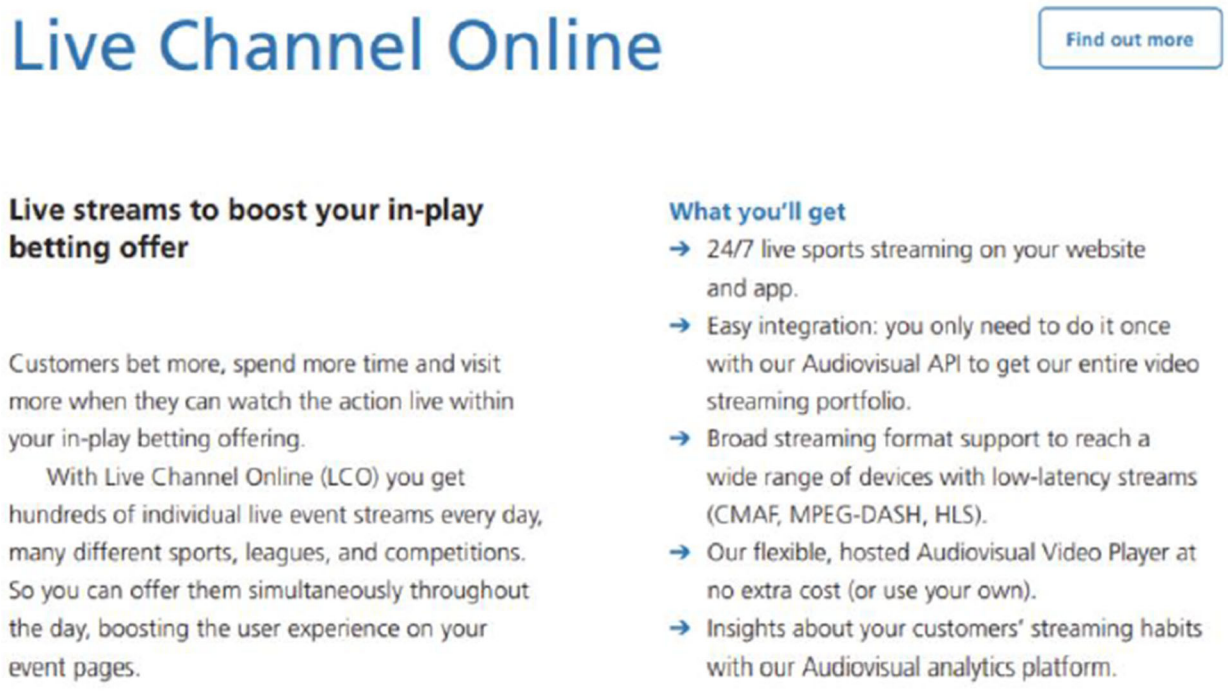
160. The Sportradar emBET source code, shows the socket server receives first event information from a control server and updates the overlay information. The emBET source code below further confirms that clients are directed to connect to an event socket of the socket server (e.g., the channel) to receive the event information:

```
const subscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.subscribe({ channels: [channel] });
const safeSubscribe = (channel) => (pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels) &&
    !(pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels().some((c) => c === channel)) &&
    subscribe(channel);
const unsubscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.unsubscribe({ channels: [channel] });
const addListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.addListener(listener);
const removeListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.removeListener(listener);
const getMessages = (channel, opts = params({ count: 25, end: undefined, start: undefined })) => new Promise((res, rej) => {
    pubnub === null || pubnub === void 0 ? void 0 : pubnub.fetchMessages({
        channels: [channel],
        count: opts.count,
        stringifiedTimeToken: true,
        start: opts.start,
        end: opts.end,
        includeMessageActions: true,
    }, (status, response) => (status.error ? rej(status) : res(response)));
});
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

161. The Accused Products include a plurality of media sources that provide a second copy of the first plurality of copies to a second viewer client device of the first plurality of viewer client devices via a third video Internet communication channel between the plurality of media sources and the second viewer client device of the first plurality of viewer client devices and provide a second copy of the second plurality of copies to a second viewer client device of the second plurality of viewer client devices via a fourth video Internet communication channel between the plurality of media sources and the second viewer client device of the second plurality of viewer client devices.

162. For example, the emBET platform supports mutliple users viewing the same sporting event simulataneously, such that a second viewer client device of the first plurality of viewer client devices will be provided a second copy of the first plurality of copies:



(*See,* PANDA-SR_000029 at PANDA-SR_000032, Audio-Visual Brochure.)

163. Further, the emBET source code supports multiple users accessing copies of the first live sporting event by establishing a one-to-many socket connection (e.g., the channel) that multiple users can access. For example, emBET's source code reveals that the client establishes an unauthenticated, one-to-many connection to a socket channel, which then relays event information. A second viewer client device will be provided the second copy, via a communication channel between the plurality of media sources and the second viewer client device, which channel includes a path through the emBET system to the event socket and from the event socket to the second viewer client device.

```
const subscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.subscribe({ channels: [channel] });
const safeSubscribe = (channel) => (pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels) &&
    !(pubnub === null || pubnub === void 0 ? void 0 : pubnub.getSubscribedChannels().some((c) => c === channel)) &&
    subscribe(channel);
const unsubscribe = (channel) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.unsubscribe({ channels: [channel] });
const addListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.addListener(listener);
const removeListener = (listener) => pubnub === null || pubnub === void 0 ? void 0 : pubnub.removeListener(listener);
const getMessages = (channel, opts = params({ count: 25, end: undefined, start: undefined })) => new Promise((res, rej) => {
    pubnub === null || pubnub === void 0 ? void 0 : pubnub.fetchMessages({
        channels: [channel],
        count: opts.count,
        stringifiedTimeToken: true,
        start: opts.start,
        end: opts.end,
        includeMessageActions: true,
    }, (status, response) => (status.error ? rej(status) : res(response)));
});
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

164. The Accused Products include at least one socket server that "*transmits at least the first event information to the second viewer client device of the first plurality of viewer client devices via a third event information Internet communication channel between the at least one first event socket of the at least one socket server and the second viewer client device of the first plurality of viewer devices and transmits at least the second score information of the second event information to the second viewer client device of the second plurality of viewer client devices via a fourth event information Internet communication channel between the at least one second event*

socket of the at least one socket server and the second viewer client device of the second plurality of viewer devices." For example, tracing the code through "listeners" and down through the event dispatch system, it can be seen that live display items (e.g., the first event information and the online gaming information germane to the first sporting event) are added in response to data sent via the one-to-many socket connection:

```
const mainListener = {
    message: (msg) => {
        msg.message.event === 'program-status-updated' &&
            eventDispatcher(document, msg.message.event, msg.message.payload);
        msg.timetoken && (msg.message.payload.timetoken = msg.timetoken);
```

```
let LiveTotal = class LiveTotal extends EmbetWidget {};
LiveTotal = __decorate$1([element$1('live-total')], LiveTotal);
let LiveSpread = class LiveSpread extends EmbetWidget {};
LiveSpread = __decorate$1([element$1('live-spread')], LiveSpread);
let LiveMoneyline = class LiveMoneyline extends EmbetWidget {};
LiveMoneyline = __decorate$1([element$1('live-moneyline')], LiveMoneyline);
let LiveAtBat = class LiveAtBat extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('table');
  }
};
LiveAtBat = __decorate$1([element$1('live-at-bat')], LiveAtBat);
let LiveStatsOdds = class LiveStatsOdds extends EmbetWidget {
  constructor() {
    super(...arguments);
    this.insightsRenderer = insightsRenderer('stats');
  }
};
LiveStatsOdds = __decorate$1([element$1('live-stats-odds')], LiveStatsOdds);
```

(*See*, PANDA-SR_00004-PANDA-SR_000005, https://www.npmjs.com/package/@livelike/embet?activeTab=code.)

165. Each claim in the ’697 Patent recites an independent invention. Neither claims 19 and 20, described above, nor any other individual claim is representative of all claims in the ’697 Patent.

166. Defendant has been aware of the ’697 Patent since at least the filing of this Complaint. Further, Plaintiff provided affirmative notice of the ’697 Patent to Defendant by sending a letter on October 4, 2023, informing Defendant of its infringement of the ’697 Patent. Additionally, Plaintiff has met with and had communications with executives at Sportradar since 2018.

167. Defendant directly infringes at least claims 19 and 20 of the ’697 Patent, either literally or under the doctrine of equivalents, by making, using, offering to sell, and selling the systems described above.

168. Defendant’s partners, customers, and end users of its Accused Products and corresponding systems and services directly infringe at least claims 19 and 20 of the ’697 Patent, literally or under the doctrine of equivalents, at least by using the Accused Products and corresponding systems and services, as described above.

169. Defendant has actively induced and are actively inducing infringement of at least claims 19 and 20 of the ’697 Patent with specific intent to induce infringement, and/or willful blindness to the possibility that its acts induce infringement, in violation of 35 U.S.C. § 271(b). For example, Defendant encourages and induces customers to use Sportradar emBET in a manner that infringes claims 19 and 20 of the ’697 Patent at least by offering and providing the software and by engaging in activities relating to selling, marketing, advertising, promotion, installation, support, and distribution of the Accused Products.

170. Defendant encourages, instructs, directs, and/or requires third parties—including

its certified partners and/or customers—to use the Accused Products in infringing ways.

171. Defendant further encourages and induces its customers to infringe claims 19 and 20 of the '697 Patent: 1) by widely advertising those services, and providing technical support and instructions to users, and 2) through activities relating to marketing, advertising, promotion, installation, support, and distribution of the Accused Products, including its video streaming software, and services in the United States. (*See,* PANDA-SR_000063-PANDA-SR_000065, https://sportradar.com/sports-entertainment/audiovisual/embet/?lang=en-us.)

172. Further, as the entity that provides installation, implementation, and integration of the Accused Products in addition to ensuring the Accused Product remains operational for each customer through ongoing technical support, on information and belief, Defendant and/or Defendant's partners affirmatively aid and abet each customer's use of the Accused Products in a manner that infringes the '697 Patent.

173. Defendant also contributes to the infringement of its partners, customers, and end-users of the Accused Products by providing within the United States or importing into the United States the Accused Products, constituting a material part of the inventions claimed, and not a staple article or commodity of commerce suitable for substantial non-infringing uses.

174. Indeed, as shown above, the Accused Products have no substantial non-infringing uses because the accused functionality, including the one-to-many socket architecture and separate channels for video and event information, is an integral part of the Accused Products and must be performed for the Accused Products to perform their intended purpose. These functionalities are continually running when the system is in use and, on information and belief, cannot be removed or disabled (or, if they could, the system would no longer suitably function for its intended purpose). Moreover, for the same reasons, without the system and components

identified above that practice the '697 Patent, that functionality could not be performed.

175. Additionally, the accused functionality, including the one-to-many socket architecture and separate channels for video and event information, itself has no substantial non-infringing uses because the components, modules and methods identified above are a necessary part of that functionality. For example, without the one-to-many socket architecture, the Accused Products could not effectively synchronize the event information across multiple viewers. These functionalities are continually running when the system is in use and cannot be removed or disabled (or, if they could, the system would no longer suitably function for its intended purpose). Moreover, for the same reasons, without the system and components identified above that practice claimed in the '697 Patent, that functionality could not be performed.

176. In addition, as shown in the detailed analysis above, the products, systems, modules, and methods provided by Defendant constitute a material part of the invention—indeed, they provide all the components, modules, and features that perform the claimed methods and systems. For example, the Accused Products and accused functionalities (e.g., the one-to-many architecture) constitute a material part of the inventions claimed because such architecture is integral to the system as recited in the claims of the '697 Patent. None of these products are staple goods—they are sophisticated and customized video streaming products, methods, and systems.

177. On information and belief, the infringing actions of each partner, customer, and/or end-user of the Accused Products are attributable to Defendant. For example, on information and belief, Defendant directs and controls the activities or actions of its partners or others in connection with the Accused Products by contractual agreement or otherwise requiring partners or others to provide information and instructions to customers who acquire the Accused Products which, when followed, results in infringement. Defendant further directs and controls the

operation of devices executing the Accused Products by programming the software which, when executed by a customer or end user, performs the claimed method of at least claims 19 and 20 of the '697 Patent.

178. Plaintiff has suffered and continues to suffer damages, including lost profits, as a result of Defendant's infringement of the '697 Patent. Defendant is therefore liable to Plaintiff under 35 U.S.C. § 284 for damages in an amount that adequately compensates Plaintiff for Defendant's infringement, but no less than a reasonable royalty.

179. Plaintiff will continue to suffer irreparable harm unless this Court preliminarily and permanently enjoins Defendant, its agents, employees, representatives, and all others acting in concert with Defendant from infringing the '697 Patent.

180. Defendant's infringement of the '697 Patent is knowing and willful. Defendant acquired actual knowledge of the '697 Patent at least upon the filing of this Complaint. Further, Plaintiff provided affirmative notice of the '697 Patent to Defendant by sending a letter on October 4, 2023, informing Defendant of its infringement of the '697 Patent.

181. On information and belief, despite Defendant's knowledge of the Asserted Patents and Plaintiff's patented technologies, Defendant made the deliberate decision to sell products and services that it knew infringe the '697 Patent. Defendant's continued infringement of the '697 Patent with knowledge of the '697 Patent constitutes willful infringement.

182. Plaintiff's allegations of direct infringement, indirect infringement, and willful infringement with respect to this patent are further set forth in Exhibits 10-12.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests the following relief:

a) That this Court adjudge and decree that Defendant has been, and is currently,

infringing each of the Asserted Patents;

b) That this Court award damages to Plaintiff to compensate Plaintiff for Defendant's past infringement of the Asserted Patents, through the date of trial in this action;

c) That this Court award pre- and post-judgment interest on such damages to Plaintiff;

d) That this Court order an accounting of damages incurred by Plaintiff from six years prior to the date this lawsuit was filed through the entry of a final, non-appealable judgment;

e) That this Court determine that this patent infringement case is exceptional and award Plaintiff its costs and attorneys' fees incurred in this action;

f) That this Court award increased damages under 35 U.S.C. § 284;

g) That this Court preliminarily and permanently enjoin Defendant from infringing any of the Asserted Patents;

h) That this Court order Defendant to:

(i) recall and collect from all persons and entities that have purchased any and all products found to infringe any of the Asserted Patents that were made, offered for sale, sold, or otherwise distributed in the United States by Defendant or anyone acting on its behalf;

(ii) destroy or deliver all such infringing products to Plaintiff;

(iii) revoke all licenses to all such infringing products;

(iv) disable all web pages offering or advertising all such infringing products;

(v) destroy all other marketing materials relating to all such infringing products;

(vi) disable all applications providing access to all such infringing software; and

(vii) destroy all infringing software that exists on hosted systems;

i) That this Court, if it declines to enjoin Defendant from infringing any of the Asserted Patents, award damages for future infringement in lieu of an injunction; and

j) That this Court award such other relief as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Plaintiff respectfully requests a trial by jury on all issues triable thereby.

DATED: October 5, 2023

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