UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SPORTRADAR AG,
Petitioner,

v.

SPORTSCASTR INC.
(d/b/a PANDA Interactive),
Patent Owner.

IPR2025-00275

U.S. Patent No. 11,039,218

PATENT OWNER PRELIMINARY RESPONSE

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TABLE OF AUTHORITIES

Cases:

Advanced Bionics LLC v. MED-EL Elektromedizinische Gerate GmbH,
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Akamai Techs., Inc. v. Cable & Wireless Internet Servs., Inc.,
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In re Arkley,
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Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.,
800 F.3d 1375 (Fed. Cir. 2015).....34

Harmonic Inc. v. Avid Tech., Inc.,
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In re Huang,
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In re Merck & Co.,
800 F.2d 1091 (Fed. Cir. 1986).....42

Interconnect Planning Corp. v. Feil,
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Leo Pharm. Products, Ltd. v. Rea,
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Medtronic Corevalve LLC v. Speyside Medical, LLC,
IPR2021-00310, Paper 9 (PTAB July 23, 2021) 32

Metalcraft of Mayville, Inc. v. The Toro Co.,
848 F.3d 1358 (Fed. Cir. 2017).....44

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545 F.3d 1359 (Fed. Cir. 2008).....57

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*Securus Techs., Inc. v. Global Tel*Link Corp.*,
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721 F.2d 1540 (Fed. Cir. 1983).....44, 68

Xerox Corp. v. Bytemark, Inc.,
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EXHIBIT LIST

Exhibit	Description
EX-2001	Declaration of Aviel Rubin, Ph.D.
EX-2002	*Curriculum vitae* of Aviel Rubin, Ph.D.
EX-2003	Joint Claim Construction and Prehearing Statement, Dkt. 124
EX-2004	Memo on Interim Processes for PTAB Workload Management
EX-2005	Yahoo Finance Tanner Simkins, April 20, 2017
EX-2006	NBA.com, Steve Ashburner April 27, 2017 Article
EX-2007	Sportstechie, Robert Roble, April 22, 2017
EX-2008	Sports Tech Tokyo Award; 2019 Yahoo! Sports Tech Awards; Sports Business Awards
EX-2009	Various Media Reports on the Patented Invention
EX-2010	CNBC, December 20, 2018
EX-2011	https://sportscastr.com/about
EX-2012	https://pandainteractive.com/patents
EX-2013	https://sportscastr.com
EX-2014	https://studiopanda.live/
EX-2015	Sportradar August 2019 Email
EX-2016	Guidance on USPTO's recission of "Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation"
EX-2017	'218 Patent Sportradar Infringement Claim Chart
EX-2018	https://www.opensourceforu.com/2015/03/a-guide-to-using-raw-sockets
EX-2019	https://learn.microsoft.com/en-us/windows/win32/winsock/tcp-ip-raw-sockets-2
EX-2020	Oracle documentation in 2011: Anatomy of the Client/Server Model. https://docs.oracle.com/cd/E13203_01/tuxedo/tux80/atmi/intbas3.htm
EX-2021	Peng, Gang. "CDN: Content distribution network." arXiv preprint cs/0411069 (2004) https://arxiv.org/pdf/cs/0411069
EX-2022	The History of Streaming Media. https://boyetblog.s3.amazonaws.com/PCPlus/324.Streaming.pdf
EX-2023	RFC 2326: Real Time Streaming Protocol (RTSP) https://www.ietf.org/rfc/rfc2326.txt
EX-2024	Adobe's Real Time Messaging Protocol

Exhibit	Description
	https://rtmp.veriskope.com/pdf/rtmp_specification_1.0.pdf
EX-2025	WebRTC 1.0: Real time Communication Between Browsers https://www.w3.org/TR/2011/WD-webrtc-20111027/
EX-2026	HTTP Live Streaming: draft-pantos-http-live-streaming-01 https://datatracker.ietf.org/doc/html/draft-pantos-http-live-streaming-01
EX-2027	Microsoft To Add Smooth Streaming in IIS7 https://virtualizationreview.com/articles/2008/11/04/microsoft-to-add-smooth-streaming-in-iis7.aspx
EX-2028	HTTP Dynamic Streaming. (Archived May 14, 2010) https://web.archive.org/web/20100514170442/http://www.adobe.com/products/httpdynamicstreaming/
EX-2029	MPEG ratifies its draft standard for DASH. (Archived December 14, 2011) https://web.archive.org/web/20111214104626/http://mpeg.chiariglione.org/meetings/geneva11-1/geneva_press.htm
EX-2030	Mogulus Rebrands With A Killer Domain: Livestream.com https://techcrunch.com/2009/05/18/mogulus-gets-a-killer-domain-for-rebranding-livestreamcom/
EX-2031	How to watch Obama's inauguration (and the parties) online https://www.cnet.com/tech/tech-industry/how-to-watch-obamas-inauguration-and-the-parties-online/
EX-2032	Twitch is 4th in Peak US Internet Traffic https://blog.twitch.tv/en/2014/02/05/twitch-is-4th-in-peak-us-internet-traffic-90b1295af358/
EX-2033	Twitch Engineering: An Introduction and Overview https://blog.twitch.tv/en/2015/12/18/twitch-engineering-an-introduction-and-overview-a23917b71a25/
EX-2034	*Proceedings of the 25th ACM workshop on network and operating systems support for digital audio and video*, pp. 55-60, 2015 https://arxiv.org/pdf/1502.04666
EX-2035	U.S. Patent 11,039,218 Certified File History
EX-2036	Ellis *et al*. U.S. App. No. 2008/0062318
EX-2037	Shoff *et al*. US 2001/0001160
EX-2038	DeWeese *et al*. US 2001/00392.09
EX-2039	Bocharov *et al.* US 2011/0083144

Patent Owner SportsCastr Inc. (d/b/a PANDA Interactive) ("Patent Owner" or "PANDA") submits this Preliminary Response to the Petition of Sportradar, Ltd. ("Petitioner" or "Sportradar") seeking *inter partes* review of U.S. Patent No. 11,039,218 ("the '218 patent").

I. DISCRETIONARY DENIAL REQUEST TO DIRECTOR

Pursuant to Acting Director Stewart's March 26, 2025 memorandum ("Stewart Memo"), Patent Owner will file a separate request for discretionary denial to the Director by April 26, 2025. (EX-2004.) The forthcoming discretionary denial brief will demonstrate that in view of the abrogation of the 2022 Vidal Memo (EX-2016) and the guidance outlined in the Stewart Memo (EX-2004), the Board should exercise its discretionary authority to deny institution under 35 U.S.C. § 314(a).

II. INTRODUCTION

Petitioner's invalidity grounds rely on mischaracterizing the innovations of the '218 patent as a television game clock from the 1990s. (Petition, 1-3.) But contrary to Petitioner's arguments, the '218 patent discloses and claims a novel one-to-many socket architecture that supplies multiple client devices real time, actionable event information, which may be paired with a digital content stream, *e.g.*, a video stream. (EX-1009, 9:34-10:9; EX-2001, ¶¶78-84.) This novel architecture reduces latency among client devices receiving these updates, which plagued prior art systems—even those like Spivey that purport to reduce latency but

which create a bottle neck of additional processing. In short, the technology of the ’218 patent did not exist in 1994.

The Board should deny institution for three reasons. ***First***, Petitioner’s grounds rely on three prior art references as allegedly disclosing or rendering obvious the challenged independent claims, but each of these references is substantively the same as prior art that was previously before the patent office. Petitioner’s deficient grounds are evidence that retreading old ground is not justified.

Second, a POSITA would not be motivated to combine Spivey with either Ellis or Herzog. Petitioner’s principal motivation-to-combine allegations stitch together disparate elements of Ellis’s broadcast television driven architecture and Spivey’s non-video, mobile device driven architecture using improper hindsight. (Petition, 23-28.) But Petitioner’s combination fundamentally does not work. A POSITA would have recognized the inoperability of Petitioner’s creation, and never attempted it because there would have been no reasonable expectation of success.

The Herzog combination fares no better. Herzog requires latency to achieve its timestamp matching techniques—latency is a feature, not a bug. To the extent that faster provision of data would even be possible in Herzog using Spivey’s

architecture (which it would not be), faster data in Herzog would contradict Herzog's teachings.

Third, even if one were to combine the prior art teachings, the cited prior art fails to teach or render obvious all limitations of the challenged claims—in particular, an "event socket" and "online gaming information." In both prior art combinations of Ground 1 and Ground 2C, Petitioner alleges that Spivey's "topic queues"—*i.e.*, some form of internal data structure within the MQS itself—are themselves "event ***sockets***." But Spivey's "topic queues" do not even meet Petitioner's expert, Dr. Kia's, own implicit definition of an "event socket": "a uniquely addressable communication endpoint on a server…where information about one sporting event is provided to [a viewer client device]." Petitioner does not explain how, in the modified system, Spivey's topic queues are "uniquely addressable communication endpoints."

Moreover, none of Petitioner's grounds satisfy the recited limitations requiring "*online gaming information*." Petitioner asserts that Ellis discloses gaming information stored at the supplemental content source; however, Petitioner *replaces* Ellis's supplemental content source with Spivey's servers in its proposed combination, failing to recognize that the resulting combination would no longer have or store the alleged "*online gaming information*." Petitioner's assertion that Herzog discloses online gaming information rests purely on speculation that one of

Herzog's many unspecified meta-data "parameters" might include online gaming information.

For at least these reasons, Petitioner fails to establish a reasonable likelihood of success. Patent Owner respectfully requests that the Board deny the petition.

III. THE '218 PATENT

A. Inadequacy of the Prior Art & the Need for Improved Synchronization

Synchronized data and video streams form cornerstone technologies that support the exploding online broadcasting market. Interactive features alongside germane video content may allow and even encourage viewers to engage and interact—all without the viewer leaving an immersive viewing experience. (EX-2001, §§III-IV.)

However, despite years and countless investments in streaming technology, conventional systems continue to suffer from significant drawbacks that have hindered product offerings. (EX-1009, 2:40-65; EX-2001, §III.C.) "One such technological problem relates to 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." (EX-1009, 2:45-49; EX-2001, §III.B.2.) While any video streaming technology may seek to reduce latency, the inventors of the '218 patent sought to address specific problems related to latency. (EX-1009, 25:12-51.) For example, conventional techniques made

it challenging to provide "relatively low latency copies of live video streams with relatively high quality (e.g., high definition HD and high bit rate)." (EX-1009, 2:55-57; EX-2001, §III.C.) The inventors also addressed synchronizing high-quality copies of a live video stream amongst multiple viewers—particularly a large number of viewers—while ***maintaining low latency delivery***, and also "allowing for different classes or types of viewers to flexibly access copies…via different live streaming formats." (EX-1009, 2:58-65.)

"Particularly in the context of a 'second screen' experience relating to a live event"—as is common among sports viewers and sports betting fans—any "discernible delay between the observation of the live event itself [e.g., a sport] and a given broadcaster's video-based commentary would significantly undermine viewer experience." (EX-1009, 4:48-52.) For example, any noticeable offset between the video signal and contextually matched information (e.g., information or commentary that may be used for betting purposes) may confuse the viewer and detract from the ability to place wagers due to the problem of out-of-date, stale, or unsynchronized data served to the viewer. (EX-2001, ¶¶73-76, 305-308.) Conventional approaches also struggle to synchronize the broadcasting of contextual-matched event information and video signals to multiple viewers because the "offset" between the video signal and matched information may become more pronounced as additional viewers, each having potentially differing bandwidths and

connection speeds, join the broadcast. (EX-2001, ¶306.)

Accordingly, there was a need for improved systems and techniques to synchronize contextually matched information with delivered video content.

B. Innovations of the ’218 Patent

The ’218 patent discloses systems and processes related to delivering digital content, such as video, with contextual-matched information, *e.g.*, online gaming information. (EX-1009, Title, 4:59-5:24, 9:34-10:9; EX-2001, §IV(A).) Instead of contending with a viewer-noticeable offset between a delivered digital content stream and associated information, the claimed inventions implement a novel, technologically improved, one-to-many socket architecture. (EX-1009, 20:16-30, 21:56-22:4, 22:26-57; EX-2001, ¶¶77-79.) This socket architecture allows multiple client devices to establish an event information channel with an “event socket,” which may supply real time, actionable event information to each client device that is contextually matched with a delivered digital content stream, *e.g.*, a video stream. (EX-1009, 21:56-22:4, 22:26-57.) The ’218 patent discloses and claims transmitting such event information to the client device via an event information Internet communication channel. (EX-1009, 9:34-10:9.)

Among the innovations of the ’218 patent is a novel architecture with a dedicated channel to transmit event information, including, *e.g.*, online gaming information, separate from a communication channel for content streaming, to

facilitate the pairing of real time, actionable information with related digital content. (EX-1009, 21:56-22:4, 27:23-45; EX-2001, ¶¶84-86, 91.) By transmitting signals, *e.g.*, video signals, to the viewer device separate from event information, the ’218 patent facilitates the inclusion of real time, contextually matched data alongside the content stream. (EX-1009, 9:34-10:9, 21:56-22:4, 27:23-45.) For example, all event viewers (regardless of the content stream they receive) may receive synchronized information from the same event socket dedicated to that event. (EX-1009, 9:34-10:9, 27:1-22, FIG. 2, FIG. 4; EX-2001, ¶¶82-83.) All live streams, across multiple viewer client devices, may therefore similarly receive synchronized event information, received in real time via the “event information Internet communications channel.” (EX-1009, 22:5-25, 27:1-22; EX-2001, ¶¶80-81.)

This represents an innovative, technological advancement over the prior art not found in the references cited by Petitioner. (EX-2001, ¶91.) The ’218 patent solves the technical challenge of providing the same event information in a synchronized manner to all viewers of such broadcast (e.g., via the socket architecture and paired video stream). (EX-1009, 25:12-51, 27:23-45.) Because all viewers of the broadcast may receive the same synchronized information via the same event socket, each viewer client device may be capable of receiving the same

information, at generally the same time, in real time, regardless of transmission protocol. (EX-1009, 27:1-22; EX-2001, ¶89.)

The claimed inventions facilitate enhanced online sports offerings because each viewer may interact with (and, more generally, make decisions based on) the same information as other viewers, all while watching the same digital content. (EX-1009, 27:1-22.) Using this novel socket architecture and paired video stream enables the claimed invention to leverage real time communication protocols in a distributed network to deliver high-quality, low-latency copies of certain content streams to multiple viewers, each of whom is receiving synchronized event information. (EX-1009, 27:1-22; EX-2001, ¶¶78, 81, 90-91.)

C. Claim Construction

Petitioner takes conflicting claim construction positions in two proceedings. Here, Petitioner contends the Board need not construe any claim terms. (Petition,8.) But, in co-pending district court litigation, Petitioner has proposed construction of twelve claim terms. (EX-2003.)

Except for the "event socket" term for which Patent Owner applies Petitioner's implied construction as discussed below, for purposes of this

preliminary response, Patent Owner agrees that no terms require construction and construes all other terms consistent with their plain and ordinary meaning.

D. Level of Ordinary Skill in the Art

A person of ordinary skill in the art would have a bachelor's degree in electrical engineering, computer engineering, computer science, or equivalent degree and, in addition, approximately two years of work experience with Internet video streaming, Internet communication, and related protocols. (EX-2001, §IV.C.)

IV. PRIOR ART OVERVIEW

A. Ellis

Ellis recognized that media guidance applications (e.g., television program guides) were typically generalized applications that failed to leverage the increased capabilities of television equipment, such as having multiple tuners. (EX-1016, ¶¶3-7; EX-2001, §V.A.) Specifically, television viewers were "unable to efficiently switch" between programs of interest. (EX-1016, ¶7; EX-2001, ¶¶100-102.)

Accordingly, Ellis discloses systems and methods directed to an "intelligent tuning module" that facilitates a television user rapidly switching between programs. (EX-1016, Abstract.) For example, using Ellis's system, a viewer may tune into two television programs simultaneously, allowing the user to switch between sporting events quickly. (EX-1016, ¶¶5, 49, 137, 176-178, FIG. 2A; EX-2001, ¶¶103-104, 109, 120.) The user's equipment may include control circuity, having multiple "tuners"—the first being tuned to a primary event and a second tuned to a second

event. (EX-1016, ¶¶57-59, FIG. 2A.)

Ellis further describes a graphical user interface to facilitate switching from the primary sporting event to the second sporting event, as shown in Ellis FIG. 3 (below). (EX-1016, ¶¶68-69; EX-2001, ¶¶110-113.) An interactive scoreboard 302 may be overlaid in a main window and may include scoreboard entries with information indicative of the currently tuned events. (EX-1016, ¶68.)

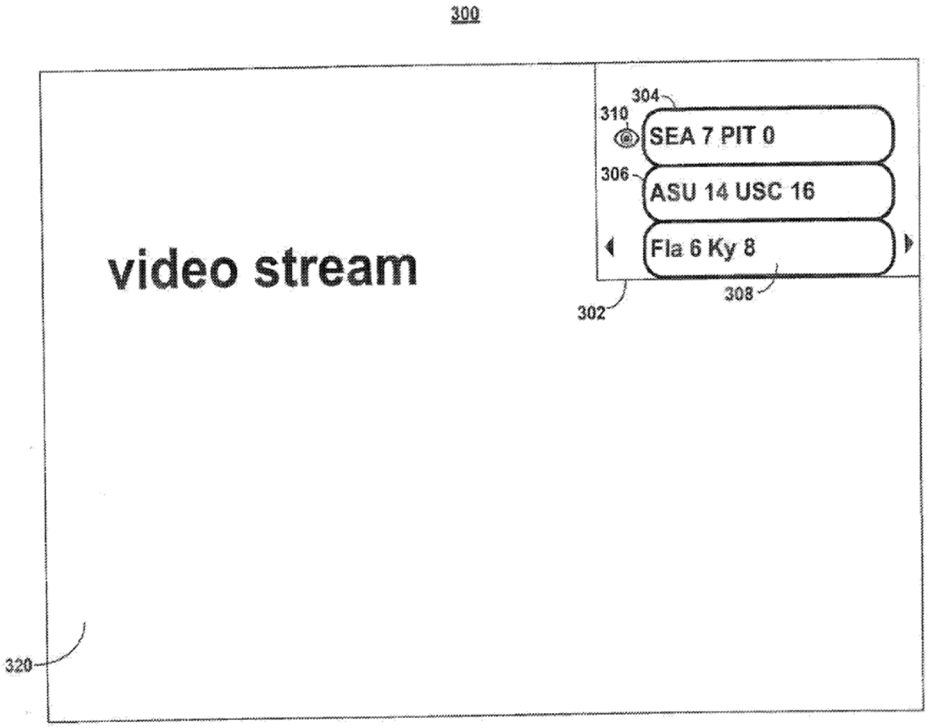


FIG. 3

(EX-1016, FIG. 3.)

Ellis describes a generic two-track architecture whereby the user's equipment "receives content in the form of signals from content source 130 and/or supplemental content source 120 over communications paths 150 and 152, respectively," for example, as shown in FIG. 1 (below). (EX-1016, ¶39, FIG. 1.) The viewer may view

content from content source 130 via communication path 150, while also receiving data from supplemental content source 120 via communication path 152 (e.g., data used to update the scoreboard). (EX-1016, ¶¶39-41, 70-71, FIG. 1; EX-2001, ¶¶114-119.)

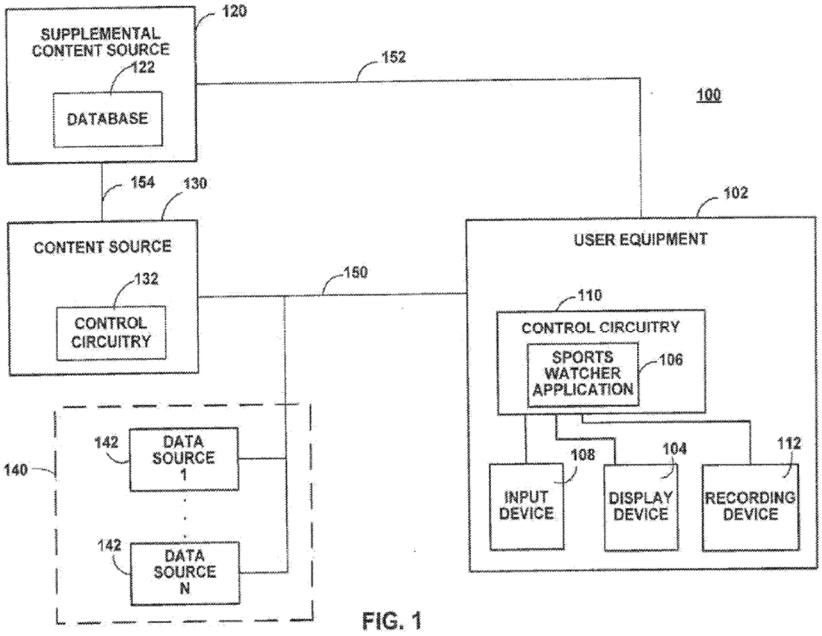


FIG. 1

(EX-1016, FIG. 1.)

Petitioner's own expert, Dr. Kia, conceded that "Ellis does not explicitly disclose the backend architecture/process flows for delivering the supplemental content data." (EX-1001, ¶103.)

In this, Ellis differs from the inventions of the '218 patent. Ellis discloses only a generic computer architecture, with no discussion of a socket server of any type. (EX-1016, ¶¶39-42; EX-1001, ¶106; EX-2001, ¶¶100, 118.) Further, Ellis discloses using the equipment of each viewer, individually, and is irrelevant to the problem

addressed by the ’218 patent of delivering data to multiple users in a synchronized manner. Finally, Ellis contains no disclosure or teaching relevant to online gaming. (*See generally* EX-1016.)

B. Spivey

Spivey discloses an apparatus directed to rapidly distributing live event data to users’ mobile devices in “real time” using a message queue server (MQS). (EX-1017, Abstract; EX-2001, §V.B.) According to Spivey, content providers experience obstacles in providing real time event data to mobile devices. (EX-1017, ¶2.) For example, conventional systems that must store data in a database before sending it to a requesting client often fail to timely deliver real time data to mobile devices. (EX-1017, ¶¶27-28.) Spivey therefore discloses a “message queue server” that operates to receive, sort, and transmit data payloads “immediately,” without the need for interim storage in a database. (EX-1017, ¶¶51, 46, 128, 131; EX-2001, ¶¶121-129.)

For example, as shown in FIG. 1 (below), Spivey discloses data topic entries (which include both a topic label and data payload) transmitted from live data sources to a message queue server. (EX-1017, ¶37.) The message queue server sorts the data payload into a designated queue based on the topic label, and then sends the data payload from the data queue to a live access server. (EX-1017, ¶¶47, 67.) Notably, the message queue server 120 (which may sit “behind a firewall”) pushes

the payload to live data access server 130, and "is not accessible to clients over the network directly." (EX-1017, ¶36, FIG. 1; EX-2001, ¶¶130-131.)

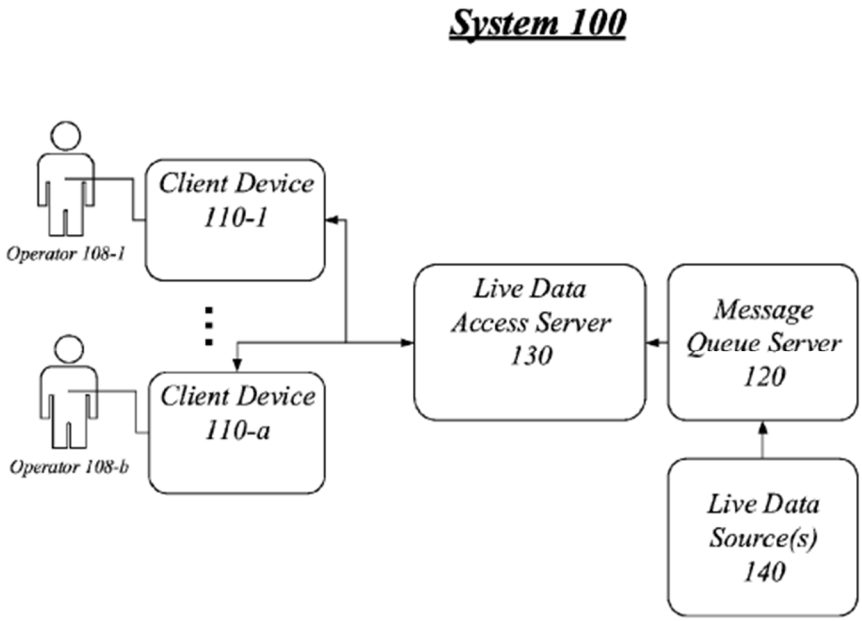


FIG. 1

(EX-1017, FIG. 1.)

Live data access server 130 serves as a "public interface" for the message queue server 120 and various client devices. (EX-1017, ¶38.) At the live data access server, client devices may select topics related to a given event to which they want to subscribe. (EX-1017, ¶38; EX-2001, ¶¶130-132.)

One embodiment of Spivey implements message queue server 120 as two separate devices to "protect proprietary data." (EX-1017, ¶57.) For example, as shown in FIG. 4 (below), message queue server 120 may be implemented by message queue server device 410 and live data server device 450. (EX-1017, ¶53;

EX-2001, ¶¶133-136.) The live data server device sorts a topic entry into one or more appropriate queues before sending the data payload to the message queue server device. (EX-1017, ¶¶49, 56.) The message queue server device may, in turn, operate as a "message broker" to facilitate receiving published messages from the live data server device and sending such messages to subscribers (e.g., the "aggregator component" and/or "live data access server") via MQS communication component 408. (EX-1017, ¶¶57, 128, 131; EX-2001, ¶¶135-136.)

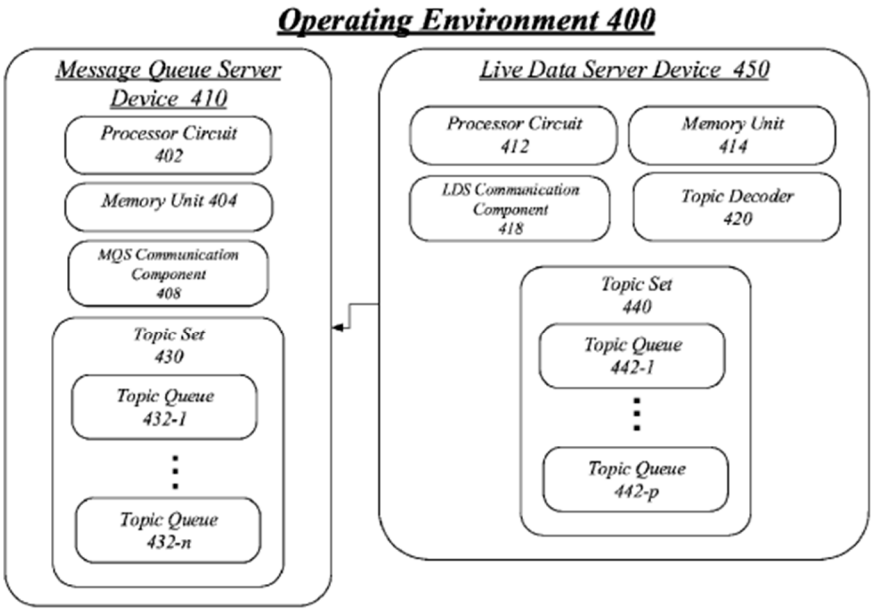


FIG. 4

(EX-1017, FIG. 4.)

Spivey differs from the inventions of the '218 patent. For example, Spivey does not address video delivery. Indeed, the Spivey's illustrative use case is a mobile device user trying to access real time statistics of the latest professional sporting event on the go. (EX-1017, ¶¶2, 27.) Spivey attempts to solve the user's dilemma

with a messaging server for quick sending of message payloads.

C. Herzog

Herzog discloses methods and software applications for separately transmitting video and data streams from a live event and then assembling them together by matching their timestamps. (EX-1015, Abstract, ¶¶18, 53-60; EX-2001, §V.C.) Herzog's operative use case is an "Indy race" in which audio/video streams (e.g., of a racecar driver) and associated telemetry data are collected during an event and subsequently transmitted from the event as separate streams at different physical locations "up to a mile apart within the same venue." (EX-1015, Abstract, ¶54; EX-2001, ¶¶138-141.)

For example, FIG. 4 shows sources within the venue, from which audio/video and associated metadata may be captured. (EX-1015, Abstract, ¶¶46-47, 54; EX-2001, ¶¶142-144.) Audio/video streams may be transmitted from the venue via satellite truck separate from telemetry data ERP gen server 49, which may transmit the associated metadata from the venue. (EX-1015, Abstract, ¶¶47, 54.)

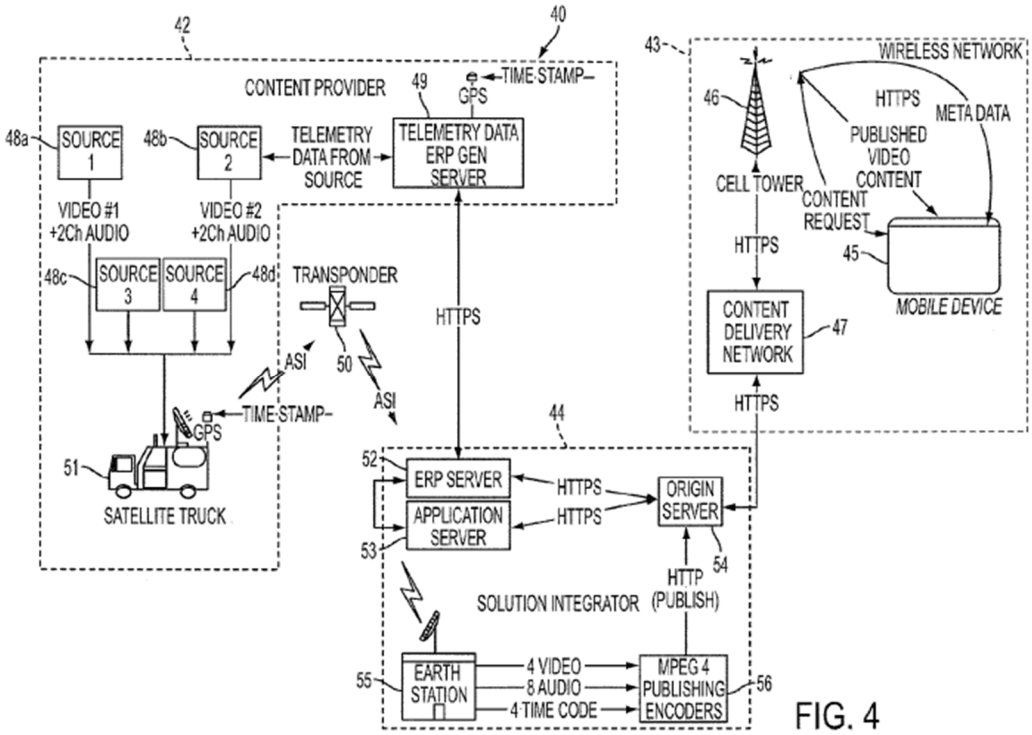


FIG. 4

(EX-1015, FIG. 4.)

Herzog discloses timestamping the audio/video stream and metadata stream using GPS protocols at both satellite truck 51 and telemetry data ERP gen server 49. (EX-1015, ¶¶17-18; EX-2001, ¶¶147-156.) As described in Herzog, "[t]wo time stamps now exist in the system"—one associated with the video, and one associated with the metadata. (EX-1015, ¶56.) In order to address latency between the audio/video stream and metadata stream, the audio/video stream "is deemed to be the master time for synchronization" with the now timestamped metadata "slaved to the master time generate by the VITC [audio/video] time code." (EX-1015, ¶¶54, 58.)

The audio/video stream and the metadata stream may be sent to a mobile device as separate protocols (e.g., HLS protocol for audio/video and HTTP protocol for metadata), as shown in FIG. 5 (below). (EX-1015, ¶¶59-61; EX-2001, ¶¶151-152.) Only when the two separate streams arrive at the mobile device are "[b]oth types of data [] assembled in the mobile device 45 via the client application software that resides within the mobile device, for appropriate presentation on the device's display." (EX-1015, ¶58.)

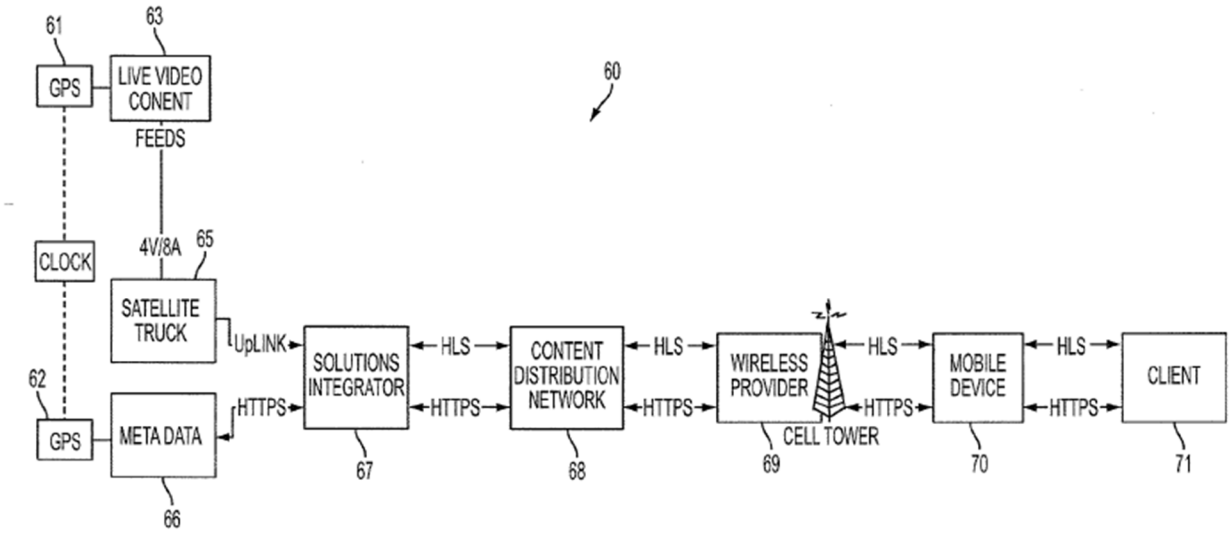


FIG. 5

(EX-1015, FIG. 5.)

FIG. 6 (below) shows that while latency associated with a "live time stamped video" may be greater than 24 seconds, latency associated with a "live time stamped meta data" may be less than 1 second. (EX-1015, ¶56.) Herzog's system implements a process for "listening" for the video stream, determining a timestamp or code of

said video stream, and then retrieving the metadata with the corresponding time stamp. (EX-1015, ¶¶70-77.)

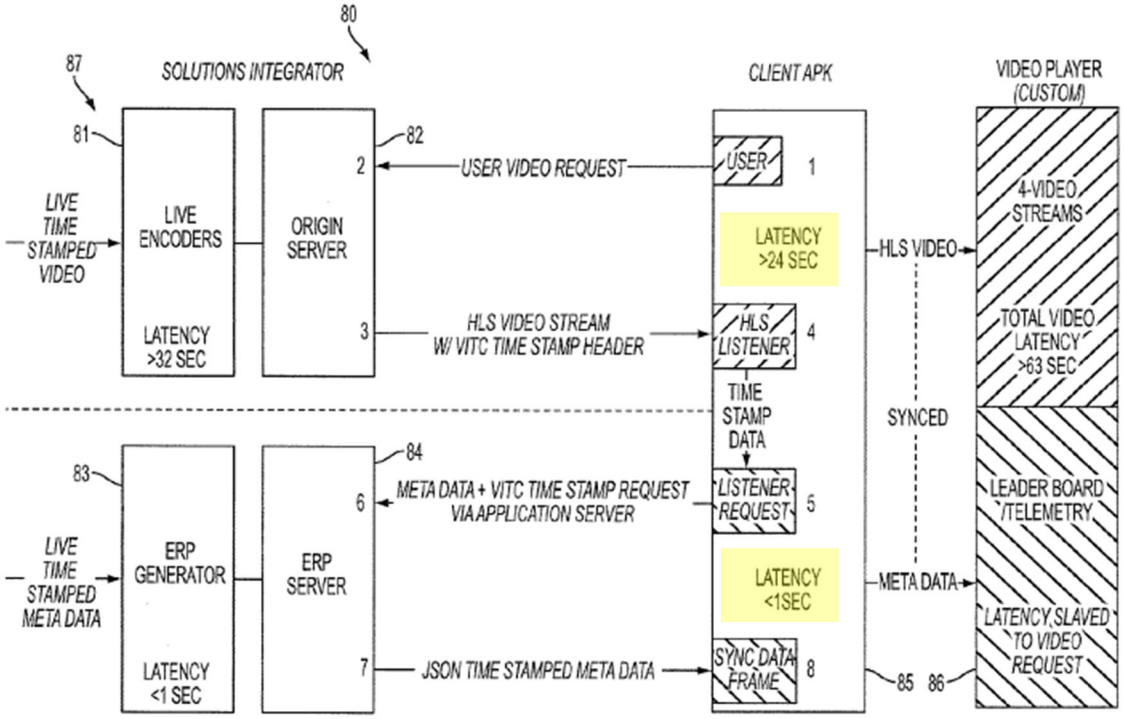


FIG. 6

(EX-1015, FIG. 6 (annotated).)

Herzog differs from the inventions of the ’218 patent. For example, as Dr. Kia concedes, Herzog does not disclose the claimed socket server. (EX-1001, ¶126; EX-2001, ¶157.) Further, Herzog does not address the technical problem solved by the ’218 patent: synchronizing real-time, contextually matched, and actionable event information across multiple client devices with an associated video stream. (EX-2001, ¶158.) Instead, Herzog discusses an individual user viewing a timestamp-

matched (though delayed) audio/video stream alongside a metadata stream. (EX-1015, ¶¶56, 58.) However, timestamp matching on a single mobile device does not ensure—nor does it allow—for multiple users to experience the same synchronized, low-latency event. Finally, Herzog provides no disclosure or teaching that relates to online gaming. (*See, generally,* EX-1015.)

V. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER §325(d)

The Board has discretion to deny institution of a petition when "the same or substantively the same prior art or arguments previously were presented to the Office." 35 U.S.C. §325(d).

When deciding whether to exercise its Section 325(d) discretion, the Board considers a two-part framework: "(1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims." *Advanced Bionics LLC v. MED-EL Elektromedizinische Gerate GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential).

A. The Same Or Substantially The Same Prior Art And Arguments Were Previously Presented To The Office

In the first part of the Advanced Bionics framework, the Board may consider the relevant Becton Dickinson factors. *Advanced Bionics*, IPR2019- 01469, Paper 6

at 9-10 (citing *Becton, Dickinson and Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8, 17–18 (PTAB Dec. 15, 2017) (informative)) (factors (a), (b), and (d)). Asserted art may be cumulative of the art considered during prosecution for purposes of the Section 325(d) analysis even if that reference is not related or in the same family as the art considered during prosecution. *See*, *e.g.*, *Nespresso USA, INC., v. K-FEE System GMHB*, IPR2021-01221, Paper 11, 15-24 (PTAB May 6, 2022).

All three references Petitioner asserts—Ellis, Herzog, and Spivey—are substantively the same as and cumulative of art analyzed during prosecution of the '218 patent: Ellis *et al*. U.S. App. No. 2008/0062318 ("Ellis-318" or EX-2036), Shoff *et al*. US 2001/0001160 ("Shoff" or EX-2037), DeWeese *et al*. US 2001/00392.09 ("DeWeese" or EX-2038), and Bocharov *et al.* US 2011/0083144 ("Bocharov" or EX-2039).

1. Ellis Is Substantively The Same As Previously Considered Prior Art

The asserted Ellis reference is substantively the same as prior art that was before the Examiner during prosecution. The prosecution history includes an analysis of Ellis-318, Shoff, and DeWeese by the Examiner, including the same arguments now duplicated in the Petition. (EX-2035, 204-231 (PCT International

Search Report dated August 6, 2018); EX-2035, 360 (IDS dated 1/5/21); EX-2035, 337-349 (office action dated April 13, 2021).)

For example, as shown below, the PCT International Search Report dated August 6, 2018, cited the entirety of Ellis-318 against claims 1-52 of the PCT application that eventually became the '218 patent. (EX-2035, 207.) After analysis of Ellis-318, the PCT Examiner correctly categorized Ellis-318 as a "document defining the general state of the art which is not considered to be of particular relevance." (*Id.*)

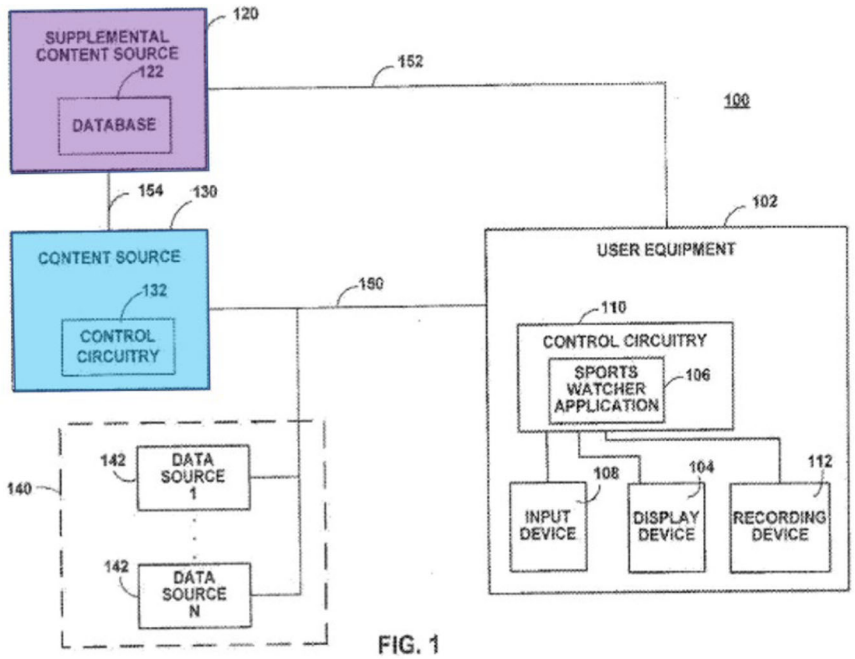
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2011/0083144 A1 (BOCHAROV et al) 07 April 2011 (07.04.2011) entire document	33, 34 --- 1-32, 35-52
Y	HASHEMIZADEHNAEINI. "Transcoding H.264 Video via FFMPEG encoder," Corso di Laurea Magistrale in Ingegneria delle Telecomunicazioni, Politecnico di Milano, 2015, pp 1-100, [retrieved on 2018-07-10]. Retrieved from the Internet: <URL: https://www.politesi.polimi.it/bitstream/10589/120003/1/Thesis.pdf>	1-32, 35-52
Y	US 2004/0003101 A1 (ROTH et al) 01 January 2004 (01.01.2004) entire document	12, 16
Y	US 2008/0022347 A1 (COHEN) 24 January 2008 (24.01.2008) entire document	27, 28
A	US 2017/0099516 A1 (AUDIONOW IP HOLDINGS, LLC) 06 April 2017 (06.04.2017) entire document	1-52
A	US 2013/0222597 A1 (BRINK et al) 29 August 2013 (29.08.2013) entire document	1-52
A	US 2016/0037215 A1 (CARDONA) 04 February 2016 (04.02.2016) entire document	1-52
A	US 2008/0062318 A1 (ELLIS et al) 13 March 2008 (13.03.2008) entire document	1-52
A	US 9,641,566 B1 (OPENTEST, INC.) 02 May 2017 (02.05.2017) entire document	1-52

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier application or patent but published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

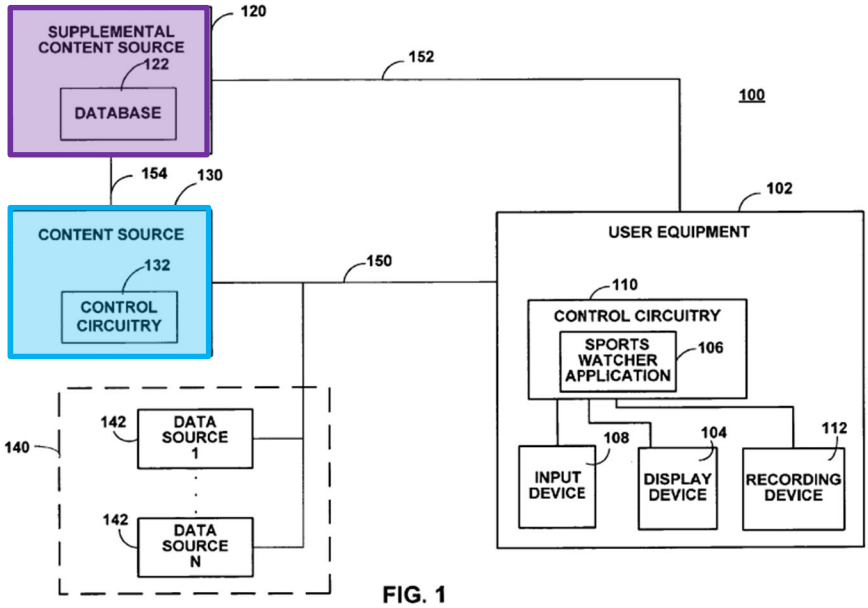
Ellis, which Petitioner asserts, is a continuation application of Ellis-318 and

the two share identical specifications and figures. In fact, FIG. 1 of Ellis, which forms the foundation of Petitioner's Ellis-based grounds, was considered by the PCT Examiner and deemed not relevant as invalidating prior art to the '218 patent:

Petition, 19, 23, 29, 35 (citing Ellis FIG. 1)



Ellis-318, FIG. 1 (annotated)



Likewise, most, if not all, citations to Ellis that the Petitioner bases its argument on have already been considered by the PCT Examiner:

Petition	Ellis-318
"For example, Ellis discloses compatible hardware and software components to act as a source for event information to be transmitted to users. *See*, *e.g.*, Ex.1016 ¶47 ('Content source 130, supplemental content source 120, and data sources 140 are shown in FIG. 1 as separate elements' but '[i]n practice, their functionality may be combined into a single mechanism and provided from a single system at a single facility, or their functionality may be provided by multiple systems at multiple facilities.')." (Petition, 27.)	[0047] Content source 130, supplemental content source 120, and data sources 140 are shown in FIG. 1 as separate elements. In practice, their functionality may be combined into a single mechanism and provided from a single system at a single facility, or their functionality may be provided by multiple systems at multiple facilities.
"Ellis specifically contemplates being implemented in a digital content delivery system such as Herzog, stating that it can be used with 'any suitable source of media content,' which includes IPTV content 'delivered on a particular network	[0040] Content source 130 may be any suitable source of media content, such as, for example, … [0075] …For IPTV, tuned content may include content to be delivered on a

Petition	Ellis-318
address (e.g., multicast address) on which an IP socket is currently joined.' Ex.1016 ¶¶39-40, 74." (Petition, 65-66.) "To the extent the preamble is limiting, Ellis discloses this subject matter. Ellis discloses a SCS providing first event information germane to the first sporting event through a 'plurality of real-time data feeds,' one of which can include 'sports score and game status information,' while the other carries 'sports commentary.' Ex.1016 ¶41." (Petition, 28.)	particular network address (e.g., multicast address) on which an IP socket is currently joined. [0041] …In some embodiments, this sports-related information is provided to user equipment 102 as a plurality of real time data feeds. Each data feed may be individually accessed or subscribed to by user equipment 102. For example, sports score and game status information may be included in one real time data feed, while sports commentary may be included in another feed.

The Examiner considered this analysis of Ellis-318 and allowed the '218 patent to issue.

NON-PATENT LITERATURE DOCUMENTS			Remove
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T5
	1	HASHEMIZADEHNAEINI, Transcoding H.264 Video via FFMPEG encoder. Corso di Laurea Magistrale in Ingegneria delle Telecomunicazioni POLITECNICO DI MILANO. Thesis, 2015, p. 1-100	
	2	International Search Report and Written Opinion in International Patent Application No.: PCT/US2017/045801 mailed October 30, 2019 (Atty. Docket No.: SGIC-001WO01), 18 pages.	
	3	International Search Report and Written Opinion in International Patent Application No.: PCT/US2018/033016 mailed August 6, 2018 (Atty. Docket No.: SGIC-002WO01), 29 pages.	
If you wish to add additional non-patent literature document citation information please click the Add button			Add
EXAMINER SIGNATURE			
Examiner Signature	/CAI Y CHEN/	Date Considered	04/09/2021
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

EFS Web 2.1.18

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.Y.C/

(EX-2035, 360 (IDS dated 1/5/21) (annotated).)

Furthermore, during prosecution, the USPTO Examiner cited "Shoff [as a] reference [that] discloses [the] concept of providing the program information and its supplemental information to the user via two interface[s]." (EX-2035, 345 (office action dated April 13, 2021).) This "two interface" transmission delivery system of a "program information and its supplemental information" that the Examiner recognized in Shoff (*Id.*) and illustrated in FIG. 1 of Shoff below, is the same disclosure as "Ellis's two-part delivery method/system" that the Petitioner relies on in its Petition. (*Compare* Petition, 23 *with* Shoff, FIG. 4.)

Petition, 23 (citing Ellis FIG. 1) (annotated)

Ellis discloses the '218's broad functionality. Specifically, Ellis's two-part delivery method/system comprises transmitting a video stream originated by a content source (*i.e.*, "media source") over communication path 150 and transmitting a data stream originated by a SCS over a separate communication path 152, as shown below:

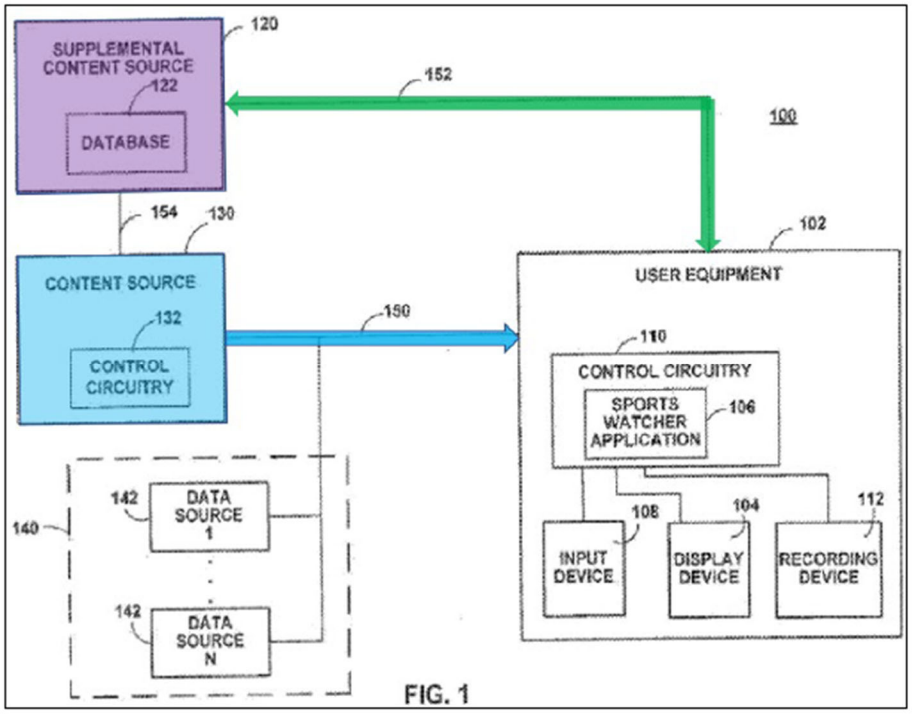
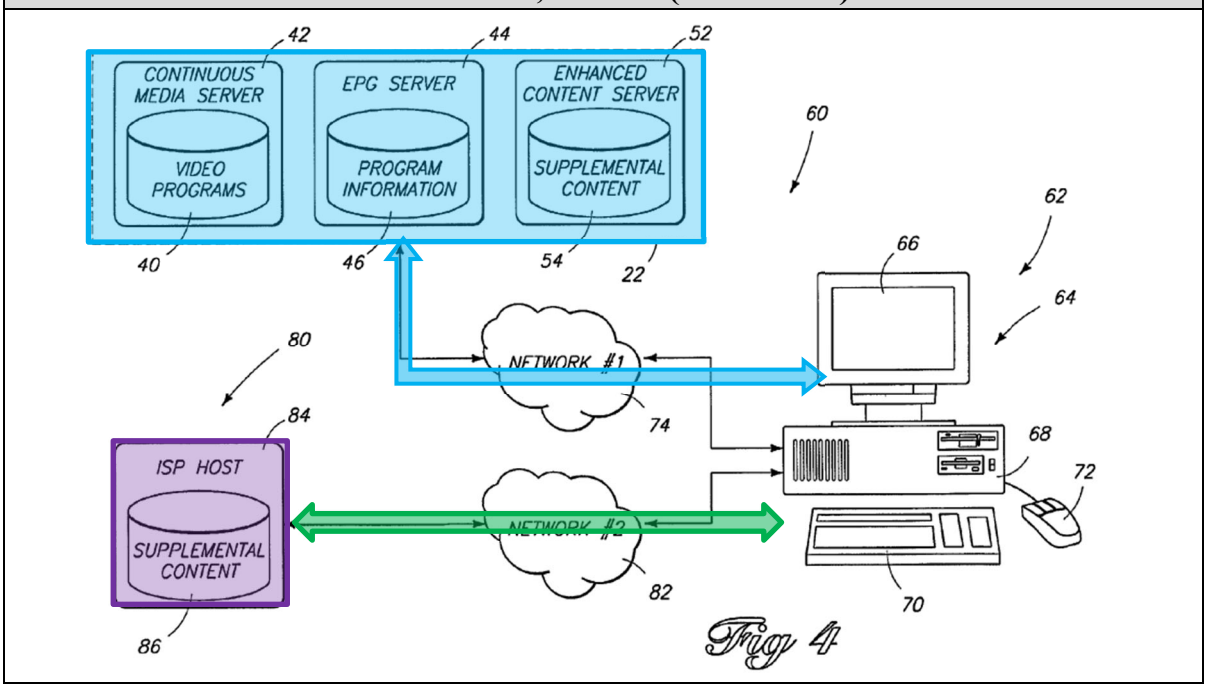


FIG. 1

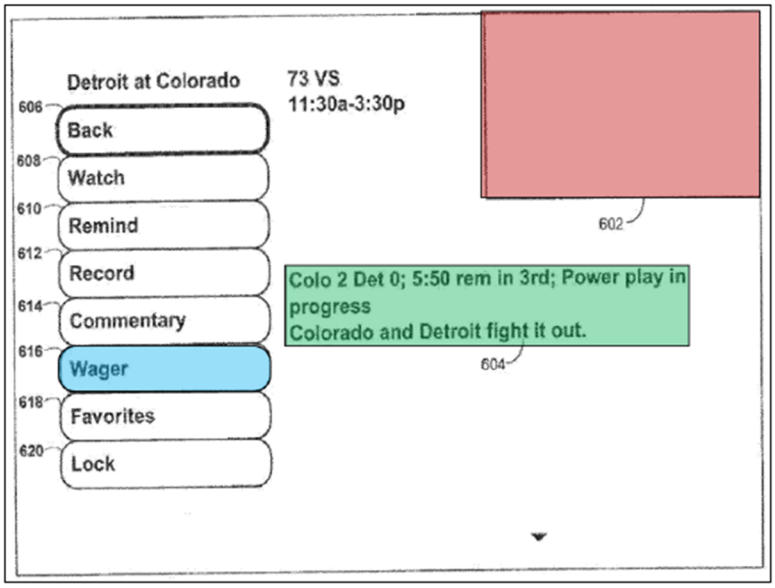
Shoff, FIG. 4 (annotated)



The Examiner specifically allowed the ’218 patent to issue in view of Shoff’s two-part delivery method/system. (EX-2035, 337-349 (office action dated April 13, 2021).)

Likewise, the Examiner also cited “DeWeese [as a] reference [that] discloses [the] concept of streaming horse race program content and betting information to user’s device.” (*Id.*, 342.) The disclosure of streaming online gaming information to user’s device that the Examiner recognized in DeWeese and illustrated in FIG. 26 of DeWeese below, is the same as the Ellis’s “game information display screen” disclosure relied on by the Petitioner. (*Compare* Petition, 40 *with* DeWeese, FIG. 26.)

Petition, 40 (citing Ellis FIG. 6)



See §§VIII.A.2, *supra*, §VIII.A.7.a, *infra*; Ex.1016, Fig. 6, ¶93 (VCD's "game information display screen" displays online gaming information separate from and simultaneously with a video stream).

DeWeese, FIG. 26 (annotated)

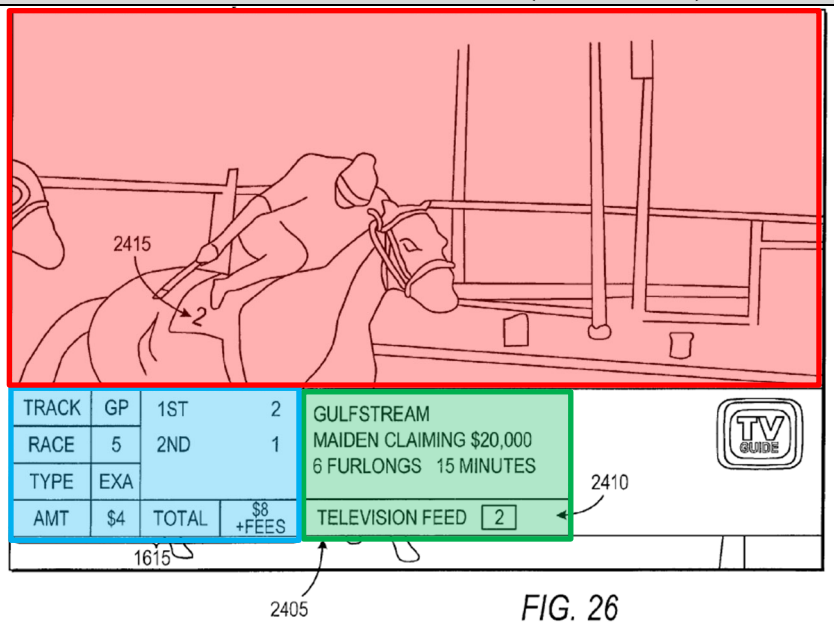


FIG. 26

The Examiner specifically allowed the ’218 patent to issue despite the game information display screen disclosure of DeWeese. (EX-2035, 337-349 (office action dated April 13, 2021).)

2. Herzog Is Substantively The Same As Previously Considered Prior Art

Like Ellis, the asserted Herzog reference is substantively the same as the prior art considered by the Examiner during prosecution of the ’218 patent with respect to Petitioner’s arguments. Herzog is substantively the same as Ellis-318, Shoff, and DeWeese for the same reasons Ellis is substantively the same. Like Ellis, Petitioner relies on Herzog for the two-track architecture disclosure of providing video and data streams over separate connections. (Petition, 55 (arguing “Herzog discloses a system and method for viewing multiple videos related to the same sporting event in addition to information about the event (meta-data)”).)

The Petitioner also relies on Herzog for the disclosure of the claimed limitation “webserver.” (Petition, 88 (arguing “a POSA would have found it obvious to integrate each of these known, generic components into Ellis, as taught by Spivey (the control server and socket server) and Herzog (the webserver)”).) Petitioner claims “[t]he web server is a generic server designed to facilitate communications ‘between the servers/memory storage devices and one or more mobile broadcaster/viewer client device executing the client app.’” (Petition, 16.)

However, the Examiner has already considered prior art disclosure of a

"webserver" in allowing the '218 patent. Specifically, the Examiner cited "Bocharov [as a] reference [that] discloses [the] concept of streaming program content to user's device." (EX-2035, 344 (office action dated April 13, 2021).) The very first sentence of Bocharov's specification discloses what Petitioner claims Herzog teaches about webserver[s], stating: "[s]treaming media is multimedia that is constantly received by, and normally presented to, an end-user (using a client) while it is being delivered by a streaming provider (using a server)." (EX-2039, Bocharov, [0002].) Additionally, Bocharov disclosed an embodiment where "[t]he sparse streaming system 100 includes at least one server 105 and at least one client 150 connected by a network 145, such as the Internet." (EX-2039, Bocharov, [0017].)

3. Spivey Is Substantively The Same As Previously Considered Prior Art

The Petitioner does not use Spivey as a primary reference but cites Spivey to supplement the primary references' deficiencies regarding the claim limitations "control server" and "socket server." (Petition, 28 (arguing "[a] POSA would have had a reasonable expectation of success in integrating Spivey's control server and socket server into Ellis's data delivery system").)

Petitioner claims both "control server" and "socket server" are "generic servers" that retrieve and facilitate communications. (Petition, 15-16.) Under Petitioner's interpretation, the Examiner has already considered the disclosure of "control server" and "socket server" in the prior art in allowing the '218 patent. As

discussed, the Examiner considered the teaching in Bocharov regarding the use of servers to stream program content to user devices. Specifically, Bocharov disclosed the use of multiple generic servers to facilitate communication stating: "the client's request may pass first to an edge server (e.g., an Internet cache), then to an origin server, and then to an ingest server." (EX-2039, Bocharov, [0017].)

In sum, the '218 patent was allowed, after the Examiner specifically considered the Petitioner's two-track architecture argument in Ellis-318, Shoff, and DeWeese and Petitioner's interpretation of "webserver," "control server," and "socket server" limitations in Bocharov. (EX-2035, 337-349 (office action dated April 13, 2021); EX-2035, 360 (IDS dated 1/5/21).) The Petition merely repeats this argument. The Board need not revisit the same arguments based on highly similar, cumulative prior art that merely resurrects arguments considered during prosecution.

B. Petitioner Makes No Claim that the Examiner Erred During Prosecution

Where the Board determines that there is no material difference between the art considered during examination and the petition, it may move on to the second step of the Advanced Bionics framework to analyze petitioner's arguments regarding Examiner error. *See Volkswagen Group of America, Inc. v. Stratosaudio, Inc.*, IPR 2021-00717, Paper 12, 11 (PTAB Nov. 12, 2021). In considering part two of the *Advanced Bionics* framework, the Board may consider the relevant *Becton Dickinson* factors. *Advanced Bionics*, IPR2019-01469, Paper 6 at 10; *see Becton*

Dickinson, IPR2017-01586, Paper 8, 17–18 (designated as informative) (factors (c), (e), and (f)).

As discussed above (Section IV.A, *supra*), the disclosures that Petitioner maps from Ellis are identical to what the Examiner considered from Ellis-318. *Volkswagen*, IPR 2021-00717, Paper 12, 12-13. "[I]t is reasonable to conclude that the Examiner was familiar with the essential substance of [the asserted art] because the Examiner considered [the asserted art's] U.S. counterparts and used those references to reject certain claims and allow others during prosecution of the [challenged patent]."

Petitioner does not dispute that Ellis-318 was previously considered by the Patent Office. (Petition, 87.) Instead, Petitioner argues that the Examiner did not discuss Ellis-318 in a rejection and that Ellis-318 is therefore new. (Petition, 88.) However, the Board has expressly confirmed that "[p]reviously presented art includes…art provided to the Office by an applicant, such as on an [IDS]." *See Advanced Bionics,* IPR2019-01469, Paper 6, 7-8; *Medtronic Corevalve LLC v. Speyside Medical,* LLC, IPR2021-00310, Paper 9, 26 (PTAB July 23, 2021) ("Petitioner…seems to limit this factor to references that are expressly included in a rejection by the examiner. This factor is not so limited.").

The Examiner had the benefit of and expressly reviewed a PCT search report analyzing Ellis-318. (EX-2035, 360 (IDS dated 1/5/21).) Petitioner asserts that the

Board should reconsider Ellis-318, based on Petitioner's combination of Ellis with Herzog and Spivey. (Petition, 88.) But as explained above, the disclosures in Herzog and Spivey were also previously considered by the Examiner. (Section IV.A, *supra*) Petitioner asserts that Spivey discloses the claimed "control server and socket server" and Herzog discloses the claimed "webserver"—the very limitations which the Examiner, after considering Shoff, DeWeese, and Bocharov, found to not invalidate the '218 patent. (*See* Section IV.A, *supra*.)

Shoff, DeWeese, and Bocharov were considered extensively during prosecution of the '218 patent. (EX-2035, 337-349 (office action dated April 13, 2021).) Indeed, over eleven single-spaced pages and 15-plus paragraphs, the Examiner's April 13, 2021 office action provides its analysis of Shoff, DeWeese, and Bocharov. Strikingly, the Examiner's office action considered many of the exact same arguments in the Petition against the '218 patent.

The Examiner correctly recognized that the claims are allowable over the prior art disclosure of a two-track architecture and generic servers. (EX-2035, 337-349 (office action dated April 13, 2021).) Accordingly, discretionary denial under Section 325(d) is appropriate.

VI. THE CHALLENGED CLAIMS ARE PATENTABLE

The Board should also deny institution because Petitioner fails to show it is reasonably likely to prevail on any claim. The petition presents four grounds:

Ground	Claims	Argument
1	16-30	§103: Obvious over Ellis in view of Spivey
2A	21-22 and 27-28	§102: Anticipated by Herzog
2B	25-26, 30	§103: Obvious over Herzog in view of Ellis
2C	16-20, 23-24, 29	§103: Obvious over Herzog in view of Spivey

"In an *inter partes* review, the burden of persuasion is on the Petitioners…. Failure to prove the matter as required by the applicable standard means that the party with the burden of persuasion loses on that point—thus, if the fact trier of the issue is left uncertain, the party with the burden loses." *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378-79 (Fed. Cir. 2015); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (noting petitioners have the "burden from the onset to show with particularity why the patent it challenges is unpatentable").

A. Ground 1: Petitioner Fails to Establish that Ellis in view of Spivey Renders Obvious Every Limitation of Independent Claims 16 or 21

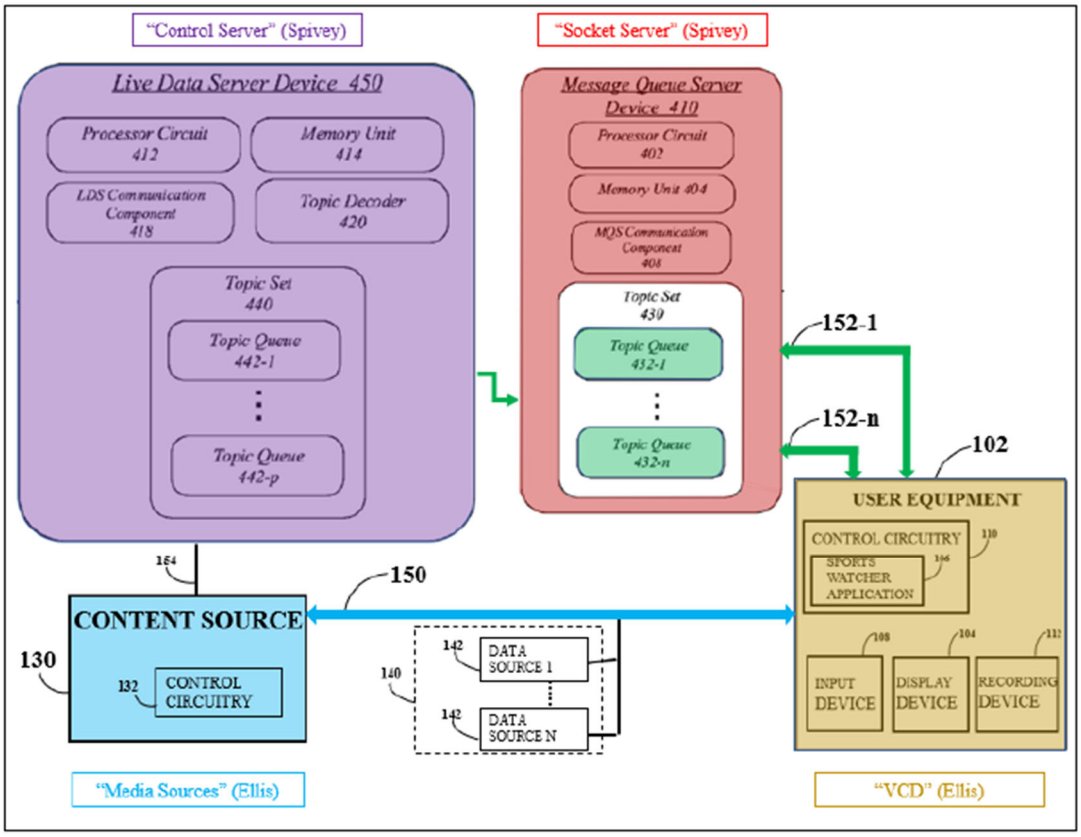
Petitioner fails to show a reasonable likelihood of success as to any challenged claim because: (1) a POSITA would not have been motivated to combine Ellis with Spivey; (2) the cited prior art does not render obvious "event socket" (claim 16); and (3) the cited prior art does not render obvious "*online gaming information*" (claims 16, 21).

1. Petitioner fails to show that a POSITA would have been motivated to combine Ellis with Spivey. (All Claims)

Petitioner fails to show that a POSITA would have been motivated to combine Ellis with Spivey. (EX-2001, §VI.A.1.) Rather, Petitioner's rationale to combine the prior art rests on impermissible hindsight.

a) Petitioner's proposed combination is fundamentally inoperable.

In an attempt to recreate the claimed architecture of the '218 patent, Petitioner cobbles together elements of Ellis's media system with Spivey's "second operating environment" to create the following concept:



(Petition, 26.)

Petitioner replaces the Ellis supplemental content source 120 and database 122 with Spivey's message queue server device 410 and the live data server device 450, to somehow "upgrade the supplemental content data delivery system" of Ellis. (Petition, 26; EX-1017, ¶53.) But a POSITA would not have been motivated to implement Spivey's database-less system in the Ellis architecture because such formulation would be fundamentally inoperable. (*See* EX-2001, §VI.A.1.a-b; *see also id.*, ¶¶168, 187-189, 213.)

Ellis describes delivering supplemental content to inform the television viewer of the status of currently tuned-in (but not necessarily presently displayed) television content. (EX-1016, ¶¶49-52.) For delivered data to bear some meaning to the television viewer, it must be delivered in coordination with the TV/video stream. (EX-1016, ¶68, FIG. 3; EX-2001, ¶¶187, 194-195.)

First, Petitioner's combination would be inoperable because Spivey not only fails to address video delivery, but also fails to address how immediately pushed data could somehow be throttled or gated in a manner to synchronize with any associated television programming. (§III.A, *supra*; EX-2001, ¶¶194-195.) To the extent Spivey was even considered by a POSITA, a POSITA would understand that Spivey's teachings, which are not tied to video delivery, would render Ellis's system inoperable, at least because unfettered delivery of "immediate" data would not be relevant or even helpful to a television viewer, especially to the extent that such data

was not synchronized with a slower-moving video stream. (EX-2001, ¶¶185, 194-195.) Neither Ellis nor Spivey offers any guidance for how to implement a message queue server architecture with video streaming. (EX-2001, ¶¶164-165.) Therefore, quite apart from improving undisclosed "latency issues" in Ellis, a POSITA would have no reasonable expectation of success in implementing Spivey's message queue server with Ellis. (EX-2001, ¶205.)

Second, Petitioner's combination would be inoperable because it removes the "*source*" of supplemental content data and thereby eliminates the very functionality—data delivery—Petitioner proposes to upgrade. Petitioner's proposed diagram raises a fundamental unanswered question: with Ellis's supplemental content source 120 and database 122 removed, from where does Ellis's user equipment receive said supplemental content? (EX-2001, ¶¶188-190.)

Ellis describes supplemental content source 120 as a "*source*" of supplemental content that is paired with database 122 to "*store*" among other things, that supplemental content. (EX-1016, ¶¶41-43.) In contrast, Spivey's message queue server device and live data server device are not "*sources*" of data, nor do they include a database, as Spivey particularly sought to achieve a database-less solution. (EX-1017, ¶¶53-56; EX-2001, ¶¶188-190.) Spivey discloses a message queue server, which stores messages temporarily in "topic queues" until they are processed.

On its face, Petitioner's proposed combination is inoperable due to the removal of the data source in Ellis. (Petition, 25-28.)

Moreover, Petitioner's removal of database 122 is flawed because it would eliminate the ability to store "sports watcher application 106" remotely from user equipment. (EX-2001, ¶191.) In so doing, Petitioner removes numerous core functions and features of Ellis, including storing the sports watcher application 106 and even banking user-profile and other non-transitory information at the supplemental content source 120. (*Id.*; EX-1016, ¶¶42-44.)

The POSITA, when faced with Ellis, would not have found such removal to complement Ellis's operation nor constitute a "simple substitution" (Petition, 27), but rather would have seen it as hindering the operation of a fundamental principle of operation of Ellis (namely, providing an "intelligent tuning module"), and therefore, the POSITA would not have attempted such combination. (EX-2001, ¶¶188-190.) Thus, a POSITA would not have been motivated to substitute the database of Ellis for a database-less system of Spivey, as proposed by Petitioner, because the POSITA would have understood that doing so would have decreased the functionality of the Ellis system and rendered it inoperable. (EX-2001, §VI.A.1.a-b.)

b) None of Petitioner's proposed motivations to combine Ellis and Spivey withstand scrutiny.

Petitioner attempts to paper over the fundamental inoperability of its proposed

combination with conclusory rationales for combining Ellis and Spivey. None of Petitioner's proposed rationales remedy the deficiency in the combination, nor satisfy the Federal Circuit's obviousness rubric—obviousness turns on "whether a skilled artisan not only could have made but ***would have been motivated*** to make the combinations or modifications of prior art to arrive at the claimed invention." *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (emphasis added).

First, Petitioner alleges that a POSITA would seek to integrate Spivey's servers in Ellis's system "to reduce latency." (Petition, 24-25.) However, as previously explained, Petitioner's modifications to Spivey's teachings radically alter the solution Spivey purportedly taught for reducing latency (§V.A.1.a, *supra*; EX-2001, §VI.A.1.a), and a POSITA would not have a reasonable expectation that any beneficial reductions in latency would be achieved in the resulting combination. (EX-2001, ¶¶206-210.) For example, Petitioner relies on Spivey's promise of reducing latency to a time period "at least two orders of magnitude shorter than conventional time periods of legacy devices." (Petition, 25.) But Spivey teaches that such reduction is achieved by implementing the message flow Spivey discloses—i.e., by allowing the live data access server to "push the data payload to client device 110, and to any other connected client devices that also requested that topic." (EX-1017, ¶96.) A POSITA seeking to reduce latency would not then ignore the very

process that Spivey discloses to achieve that result. (EX-2001, ¶¶206-210.) And a POSITA would not have a reasonable expectation of achieving the same result when implementing Spivey's servers without the same message flow. (EX-2001, §VI.A.1.a, ¶¶206-210.) Even where two pieces of technology could somehow be combined, the resulting combination is not considered obvious unless the results are predictable. MPEP §2143.01(III); *KSR Int'l Co. v. Teleflex Inc*., 550 U.S. 398, 417-418 (2007).

Second, Petitioner alleges that a POSITA would be motivated to combine Ellis and Spivey because each reference allegedly relates to "content delivery for real time events." (Petition, 26.) But a "cursory assertion that the references are drawn from the same broadly characterized field" is insufficient to meet Petitioner's burden. *Securus Techs., Inc. v. Global Tel*Link Corp.*, IPR2015-00155, Paper 30 at 17 (PTAB Apr. 7, 2016). Furthermore, Ellis and Spivey do not relate to the same subject matter. (§§III.A-B, *supra*.) Spivey delivers data—i.e., information; Ellis helps a viewer change a TV channel. Ellis therefore resides within a field that necessarily includes video delivery, unlike Spivey. *See id*., *supra*. When faced with the primary Ellis reference and its video-based "***viewing*** and ***tuning*** enhancements" for broadcast television, a POSITA would not find a reference concerned solely with data-delivery to be relevant, or even helpful to modify Ellis's video-based "enhancements," and therefore a POSITA would not attempt such modification.

(EX-2001, ¶¶213-214.)

Third, Petitioner alleges that Ellis and Spivey solve similar problems: "providing video and/or event data to multiple users over the Internet quickly to multiple users." (Petition, 27.) However, Ellis and Spivey do not solve similar problems. (§§III.A-B, *supra*.). Ellis purports "to better match how certain types of viewers (e.g., sports viewers) commonly watch and interact with sporting events displayed on the user equipment device" by implementing "sports-specific ***viewing*** and ***tuning*** enhancements" (EX-1016, ¶¶2, 5 (emphasis added).) Spivey cannot be credibly read as solving, much less addressing, or even being relevant to, matching how sports viewers commonly ***watch*** and interact with displayed sporting events. Ellis provides viewing and tuning enhancements that allow said viewer's television to "tune," simultaneously, into the NFL and collegiate games, despite the television optionally only showing the viewer, e.g., the NFL broadcast. (EX-1016, ¶¶68-69, 108, 151.) Spivey does not solve any problems related to how sports viewers commonly watch and interact with displayed sporting events, and as such, a POSITA would not find Spivey relevant, and would lack the motivation to combine their teachings. (EX-2001, ¶¶211-215.)

Fourth, Petitioner alleges that because Ellis purportedly lacks "backend architecture/process flows for delivering the supplemental content data," that "a POSA would have found it obvious to implement Ellis's SCS as a websocket

server…to achieve full-duplex communications between a client and a remote host." (Petition, 24.) Petitioner's argument appears to rest on the notion that because Ellis does not specify the backend architecture of the supplement content source 120, that literally any architecture could be slotted into the Ellis interactive media system 100. However, absent an articulated reason why a POSITA would specially choose Spivey's architecture (among a universe of options), the Petitioner's rational is merely conclusory, and therefore insufficient to demonstrate a motivation to combine Ellis with Spivey. Furthermore, Spivey only discloses a "full-duplex connection, such as a websocket connection" between the live data access server and client device. (EX-1017, ¶¶60-61; EX-2001, ¶¶207-210.) But Petitioner neglects to include the live data access server in its proposed combination of teachings. Accordingly, such a connection would not have been a predictable result of Petitioner's combination. (EX-2001, §VI.A.1.)

Fifth, Petitioner alleges that implementing "certain portions" of the Spivey disclosure into Ellis's disclosed architecture would "have been obvious because doing so would have required only the simple substitution of known elements for another to obtain predictable results." (Petition, 27.) However, to establish a prima facie case of obviousness there must be a reasonable expectation of success. *In re Merck & Co.,* 800 F.2d 1091, 1097 (Fed. Cir. 1986); *see, also, KSR*, 550 U.S. 398 at 418. The immediate "push" of data taught by Spivey is not compatible with the

enhanced viewing and tuning techniques of Ellis, and a POSITA would not have a reasonable expectation of success. (EX-2001, ¶¶194-203.) For example, video streaming requires the continuous, ordered delivery of video and audio components for proper playback and message queues are not designed for the high-frequency, continuous delivery needed for real time streaming of video content. (EX-2001, ¶199.) The total lack of teaching in Ellis and/or Spivey concerning how to integrate Spivey's rapid-fire data delivery alongside Ellis's video streaming means that a POSITA would be cautioned against such combination as potentially hindering the television viewing enhancements taught by Ellis. (EX-2001, ¶¶194-195.) A POSITA would understand the fundamental incompatibility of Spivey's immediate "push" data delivery and Ellis's video delivery, and therefore would have no reasonable expectation of a successful combination at least because such combination would have decreased performance. (EX-2001, ¶¶194-196.)

c) Petitioner relies on impermissible hindsight bias to construct the asserted prior art combination.

Absent a clearly articulated reason to combine Ellis and Spivey, ***Petitioner relies exclusively on impermissible hindsight*** to stitch together unrelated elements of the prior art in a misguided attempt to reconstruct the invention addressed by the '218 patent. In this regard, Petitioner divorces prior art elements from their disclosed context, and instead uses the '218 patent as a guidepost for reconstructing the claimed invention.

As set forth by the Federal Circuit, "[t]he invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time." *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138 (Fed. Cir. 1985). Petitioner must put forward some "explanation as to how or why the references would be combined to arrive at the claimed invention…[otherwise] hindsight bias [becomes] the thread that stitches together prior art patches into something that is the claimed invention." *Metalcraft of Mayville, Inc. v. The Toro Co*., 848 F.3d 1358, 1367 (Fed. Cir. 2017) (citation omitted). Hindsight reconstruction of the claimed invention must be carefully guarded against. *KSR*, 550 U.S. at 418.

Rather than drawing from the state of the art explicitly described in Ellis and Spivey, Petitioner appears to "fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." *W.L. Gore & Assocs. v. Garlock, Inc*., 721 F.2d 1540, 1553 (Fed. Cir. 1983).

As one example of Petitioner's reliance on hindsight, absent reference to the blueprint of the challenged claims of the '218 patent, a POSITA would not have been prompted to remove both of Ellis's supplemental content *source* and *database* and replace those components with a multi-component messaging architecture cherry-picked from Spivey. (EX-2001, ¶¶207-210.) For example, in attempting to reconfigure Ellis's interactive media center to match the challenged claims of the '218 patent (Petition, 25-26), Petitioner bypasses the explicit teachings of the prior

art by wrongly equating the function of Ellis's supplemental content source and database with Spivey's message queue server 410 and live data server 450. Those components of Ellis and Spivey serve different functions and are not interchangeable, nor would doing so improve performance. (EX-2001, ¶¶165-168.)

Rather than represent a "*source*" of data, Spivey's message queue server and live data server form a multi-component messaging queue architecture that sits *between* a live data "source" and a live data access server 130. (EX-1017, ¶¶53-56; FIG. 1, FIG. 4.) Accordingly, the motivation to arrange these select components of Ellis and Spivey in the Petitioner-generated diagram apparently derives from the recited elements of the challenged claims rather than any teaching and/or motivation expressed in either Ellis or Spivey.

Petitioner fails to articulate a sufficient rationale to combine Ellis and Spivey, and therefore, Petitioner has not met its burden in showing a reasonable likelihood of success.

2. Petitioner's combination does not render obvious the claimed "event socket." (Claim 16)

Petitioner argues that Spivey's message queue server device 410 discloses a "*socket server*" and the "*event socket*" functionality recited in claim 16 of the '218 patent. (Petition, 31-34 (Limitation 16.2).) Petitioner's argument fails at least because: (a) a POSITA would not understand the message queue server device as transmitting information through an "event socket" or between an "event socket"

and a client device; (b) regardless of the message queue server's transmission destination, Spivey's topic queues are not "*event sockets*;" and (c) Petitioner fails to show that a POSITA would have been motivated to combine or modify the references in such a way as to teach the claimed limitations. (EX-2001, §VI.A.2.)

a) Spivey's message queue server device does not render obvious transmitting information between an "event socket" and a client device.

First, a POSITA would not understand Spivey's message queue server device 410 as transmitting information between an "event socket" and a client device. For example, Spivey does not disclose a "websocket connection" or channel between its message queue server and client devices. (EX-1017, ¶¶43, 61; EX-2001, §VI.A.2.a.) Rather, Spivey discloses a websocket connection between a live data access server and client devices (EX-1017, ¶¶43, 61, 74; EX-2001, ¶¶221-225), and Petitioner has omitted the live data access server without explaining a POSITA's motivation to modify Spivey's teachings and/or to expect any measure of success. (Petition, 26, 30-31, footnote 3.)

Petitioner's combination omits Spivey's live data access server, which sits between a message queue server and client devices, and alleges that client devices communicate directly with the message queue server. (Petition, 25-26; EX-2001, ¶221.) But Spivey describes a message queue server that is communicatively

separated from client devices by a live data access server. (EX-1017, FIG. 1; EX-2001, ¶225.)

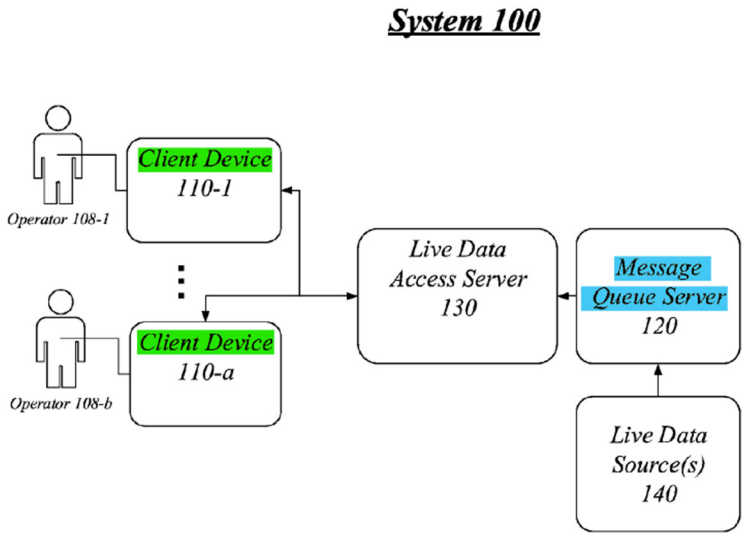


FIG. 1

(EX-1017, FIG. 1 (annotated).)

And the message queue server device and live data server device are also described as communicatively separated from the client devices. (EX-1017, ¶¶53, 57, FIG. 4 ("FIG. 4, message queue server 120 may be implemented with at least two separate devices: a message queue server device 410 and a live data server device 450.").)

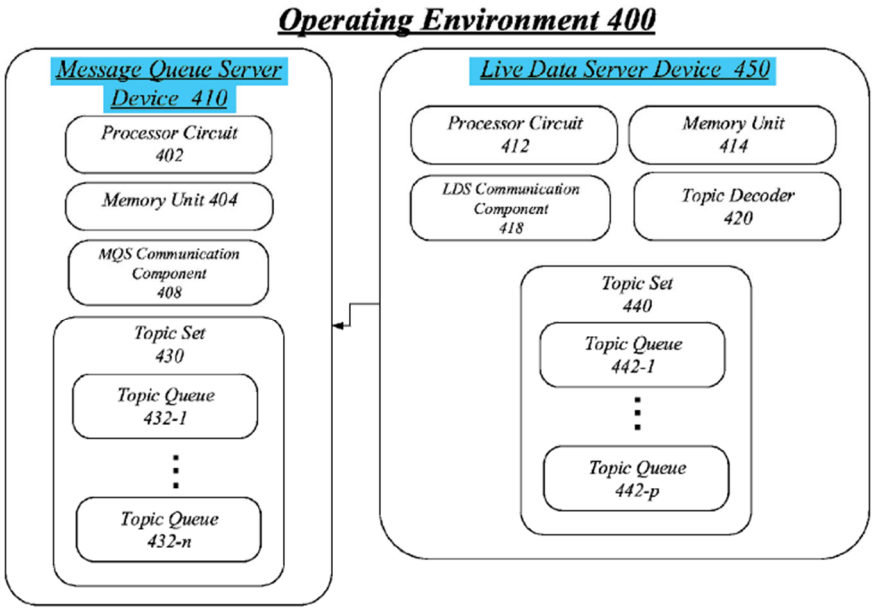


FIG. 4

(EX-1017, FIG. 4 (annotated).)

Petitioner states that "Spivey also discloses that the message queue server device may be 'accessible to clients over the network directly,'" citing Spivey at [0036] and [0084]. (Petition, 30-31, footnote 3.) But paragraph [0036] of Spivey does not support this position; rather, Spivey teaches: "In some embodiments, message queue server 120 is ***not*** accessible to clients over the network directly." (EX-1017, ¶36 (emphasis added).) Petitioner's quote in footnote 7 leaves out the word "not." (Petition, 30, n.3.)

Spivey's teachings regarding a "websocket connection" are limited to the live data access server. (EX-1017, ¶61; EX-2001, ¶¶224-226.) In view of this, it is

unclear how Spivey's message queue server device 410 could include the claimed event socket, and Petitioner does not demonstrate otherwise. EX-2001, ¶¶227-229.)

b) Regardless of the messaging queue servers' transmission destination, Petitioner fails to show that Spivey's topic queues are "event sockets."

Second, Petitioner fails to show that Spivey's topic queues are "*event sockets*" under Petitioner's (and its expert's) implied definition, which requires them to be "uniquely addressable communication endpoints."[1] Spivey's topic queues are merely an internal data structure within the message queue server. Petitioner does not identify any disclosure that would suggest to a POSITA that Spivey's topic queues are "uniquely addressable communication endpoints." To the contrary, Spivey's disclosures would have suggested the opposite to a POSITA. (EX-2001, §V.A.2.b.) Therefore, the Petition has failed to show that Spivey's message queue

[1] Although the parties dispute the meaning of "socket" and "event socket" in the district court, Petitioner does not address either party's constructions. Even if one were to apply Petitioner's proposed district court constructions here, Petitioner would still not meet its burden for institution.

server device satisfies the limitations of claim 16 of the ’218 patent, regardless of whether it communicates with any client devices. (EX-2001, ¶¶231-236.)

Petitioner and Dr. Kia state that “a POSA would have understood a “socket” to be a uniquely addressable communication endpoint on a server where first event information is provided to a VCD.” (EX-1001, ¶189; Petition, 32.) Petitioner then alleges that “a POSA would have understood that ***Spivey’s topic queues disclose first event sockets***.” (Petition, 34 (emphasis added).) But Spivey’s topic queues are not “uniquely addressable communication endpoints.” (EX-1017, ¶¶46-54; EX-2001, ¶¶233-235.) Instead, Spivey discloses that its topic queues are internal to its MQS, and Spivey nowhere discloses or suggests that the topic queues are “uniquely addressable” or “communication endpoints.” (EX-2001, ¶¶231-236.) At most, Spivey discloses that a single component—the message queue server (MQS) communication component—“may receive requests to subscribe to topics in a topic set” and “push data from topic queues,” without providing any details of that process. (Ex. 2001, ¶232 (citing EX-1017, ¶46).) Accordingly, a POSITA would have understood that Spivey’s “topic queue” is merely an organization of data, such as a database table, that includes information about a particular topic. (EX-2001, ¶¶231, 236.) Without more, a POSITA would not consider such a database, message queue, or other internal data structure by itself to be a “uniquely addressable

communication endpoint" because as disclosed by Spivey, the queues themselves lack any address at all through which they communicate. (EX-2001, ¶232.)

Indeed, the only potential "communication endpoint" Spivey discloses as being "uniquely addressable" is its live data access server, not any of the topic queues within the message queue servers. (EX-1017, ¶¶38-39; EX-2001, ¶233.) Petitioner relies on the following portion of the '218 patent specification for its definition of "*event sockets*": "The first event socket has a corresponding EventID that the VCD 'uses…to connect to the…socket,' e.g., by using a '***URL including the…EventID in a path of the URL***.'" (Petition, 32 (citing EX-1009, 22:5-17) (emphasis added).) But the only URL that Spivey's clients are provided is for the live data access server, not the message queue server, and certainly not the topic queues therein: "UI 800 may also include an address UI element 830 to allow the operator to select or enter the address or connection information ***to a particular live data access server***." (EX-1017, ¶82; *see also id*. ("The address may resemble a uniform resource locator (URL), for example, 'torq.cbssports.com/torq.' In an embodiment, address UI element 830 may be a text field or a pull-down menu pre-populated with addresses ***of live data access servers*** available to live data app 210.").) Nowhere does Spivey disclose or suggest any topic queue with its own "unique" URL—and neither Petitioner nor Dr. Kia argues otherwise.

This is fundamental to how Spivey operates: the client connects to the live

data access server and selects the topics they subscribe to; the live data access server then subscribes to those topics on the MQS for the client. (EX-1017, ¶¶49, 128, 131; 71-78, FIG. 7; EX-2001, ¶¶129-131, 175-177.) When there is an update for a topic queue, the live data access server must receive that update, determine which of the clients are subscribed to that topic, and then push that data to the client. (EX-1017, ¶¶38, 46, 49; 79-80.) There is no disclosure of any connection for the client to anything other than the live data access server, and certainly no disclosure that each topic queue is a "uniquely addressable communication endpoint." (*See generally* EX-1017; EX-2001, ¶¶173-175.)

Petitioner and Dr. Kia attempt to overcome this deficiency by referencing Spivey's disclosure that topic queues may be ***identified*** by text strings. (Petition, 33 ("Client devices use these topic label text strings to connect and subscribe to MQSD's topic queues.").) Petitioner cites to Spivey's FIG. 9, which shows text strings for topic queues—but those text strings are not URLs themselves, nor are they used in URLs (or any other address in Spivey):

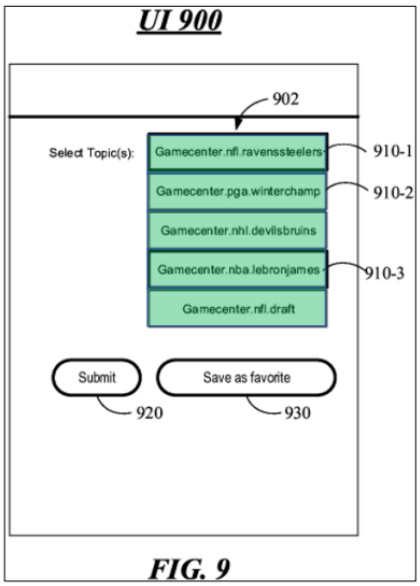


FIG. 9

(Petition, 34.)

But even if one were to accept Petitioner's argument that requires a "socket" to be a "uniquely addressable communication endpoint on a server where first event information is provided to a VCD" (Petition, 32), the fact that each "topic queue" has a text identifier does not mean that topic queues are either endpoints or uniquely "addressable." (EX-2001, ¶¶238-239.) For example, Spivey does not disclose that any URL in its system includes a topic text identifier or that a URL corresponds to any of the topic queues. (*See generally* EX-1017.) The only Spivey components that have an address (corresponding to a URL in Spivey) are the servers (specifically the live data access server, not the message queue server) themselves, not the topic queues within the message queue server. (EX-1017, ¶¶81-82.)

The Petition does not show otherwise. Petitioner and its expert, Dr. Kia, only argue that the client devices disclosed in Spivey "use…topic label text strings to

connect and subscribe to MQSD's topic queues" (EX-1001, ¶191; Petition, 33). But this is incorrect—Spivey does not disclose that the text strings are used to "connect" to the MQD's topic queues. To support this incorrect statement, Petitioner and Dr. Kia must erroneously state that the client devices "request a live data connection" with the MQSD by "selecting or entering address or connection information to a particular MQSD," citing paragraphs 81-82 of Spivey. (EX-1001, ¶191.) But those paragraphs of Spivey are explicit that the client devices request a live data connection with the ***live data access*** server, ***not*** the message queue server (and not the topic queues within the MQS):

> UI 800 may include various UI elements that allow an operator 108 of a client device 110 ***to request a live data connection with <u>a live data server</u>***…. UI 800 may also include an address UI element 830 to allow the operator to select or enter the address or connection information ***to a particular <u>live data access server</u>***…. In an embodiment, address UI element 830 may be a text field or a pull-down menu pre-populated with addresses ***of live data access servers*** available to live data app 210.

(EX-1017, ¶¶81-82; EX-2001, ¶¶238-239.)

Accordingly, Petitioner fails to show that Spivey's topic queues are "***uniquely addressable communication endpoints*** on a server where first/second event information is provided to VCDs," which it contends is required for the "event socket" limitation. (EX-1017, ¶¶46-49; EX-2001, ¶¶234-235.)

Petitioner relies entirely on Spivey's topic queues as allegedly disclosing the

claimed "event sockets," which Petitioner combines with Ellis. (Petition, 31-35.) Accordingly, Petitioner fails to establish that Spivey, alone or in combination with the other references, teaches or renders obvious the claimed "event sockets." Petitioner's combination of Ellis and Spivey fails to disclose or render obvious this limitation.

c) Petitioner fails to articulate sufficient motivation to combine and modify the prior art.

Regarding Limitation 16.2, Petitioner argues that a POSITA "would have understood that Spivey's topic queues disclose first event sockets corresponding to the first event information germane to the first sporting event" without even attempting to show how the systems in Spivey and Ellis are compatible with one another (Petition, 34.) As discussed above in V.A.1, *supra*, Petitioner's combination fails to account for critical distinctions between Ellis's and Spivey's teachings, explain the modifications necessary to combine such teachings, or articulate why a POSITA would have been motivated to make the necessary modifications and proposed combination. Section V.A.1, *supra*. Again, Petitioner's lack of specific motivation to combine the prior art teachings demonstrates its impermissible reliance on hindsight bias. *KSR*, 550 U.S. at 418; Bolt, 64 EMORY LAW J. at 1158.

3. Petitioner's combination does not render obvious the claimed "online gaming information" (Claims 16, 21)

Independent claims 16 and 21 of the '218 Patent recite several limitations that include receiving and rendering "*online gaming information*." (EX-1009, claim

limitations 21.0, 21.3-21.4, 16.0, 16.2.) The '218 patent teaches that "*event information*" may include, more particularly, "*online gaming information*." (EX-1009, cls. 1, 12, 21.) Based on the fact that the claims distinguish between "*event information*," more generally, and "*online gaming information*," a POSITA would understand online gaming information to be a distinct subset of event information—e.g., event information relevant to online gaming, such as odds, wins and losses, or other information relevant to placing bets. (EX-2001, ¶240.) That is, while some forms of event information may be online gaming information, not all forms of event information are online gaming information. (*Compare* EX-1009, cl. 1 *with id.*, cl. 21; EX-2001, ¶240.)

Petitioner asserts that Ellis discloses "*online gaming information*," for example, in the form of "point spread, money line, and other wagering information." (Petition 42.) However, Ellis teaches that such information is stored in database 122 and provided by Ellis's supplemental content source (EX-1016, ¶¶41, 44)—the very source that Petitioner says a POSITA would have been motivated to replace with Spivey's live data server device and message queue server device. (Petition, 24-28.) Neither Spivey's live data server device nor message queue server device are sources of data—rather, both rely on an external source of data. (*See* EX-1016, FIGs. 1, 6,

¶¶37, 48, 66 ("Message flow 600 begins when live data is received from live data source(s) 140…."); EX-2001, ¶241.)

Petitioner does not allege that the functionality of Ellis's supplemental content source would be maintained in the modified combination much less explain how. Rather, Petitioner merely concludes that Ellis discloses this information without a thought for its proposed combination. (Petition, 23-28.) Accordingly, Petitioner has failed to meet its burden to establish that the combined, modified teachings of Ellis and Spivey render obvious receiving and rendering "*online gaming information*."

B. Ground 2A: Petitioner Fails to Establish that Herzog Anticipates Every Limitation of the Challenged Claims

Petitioner fails to show a reasonable likelihood of success as to any challenged claim at least because Petitioner fails to demonstrate that Herzog teaches "*online gaming information*" (claim 21).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Brothers v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); *Net MoneyIN Inc. v. VeriSign Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008) (emphasis added). "The identical invention must be shown in as complete detail as is contained in the claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). A single prior art reference must "clearly and unequivocally" describe the claimed invention "without any need for picking, choosing, and

combining various disclosures not directly related to each other by the teachings of the cited reference." *Id*. (*citing In re Arkley*, 455 F.2d 586, 587 (C.C.P.A. 1972)).

As discussed above in Section V(A)(3), *supra*, a POSITA would understand that not all forms of event information are online gaming information. The single sentence analysis Petitioner dedicates to "online gaming information" fails to meet its burden or establish a reasonable likelihood of success. (Petition, 57.) Petitioner alleges that Herzog discloses "*event information*" in the form of meta-data, such as "lap number, car speed and acceleration," as well as other unspecified "parameters." (*Id.*) And in a single conclusory sentence, Petitioner then states "[a] POSA would have understood such parameters to include online gaming information." (*Id.*)

Petitioner's expert merely repeats, verbatim, the conclusory statement found in the Petition: "[i]n my opinion, a POSA would have understood such parameters to include online gaming information." (EX-1001, ¶252.) But Dr. Kia does not explain why his conclusion follows from Herzog's teaching, or the purported relationship between the Herzog parameters and the recited online gaming information; therefore, Dr. Kia's testimony is insufficient to fulfill Petitioner's burden for institution. *Xerox Corp. v. Bytemark, Inc*., IPR2022-00624, Paper 9 at 15 (PTAB Aug. 24, 2022) (precedential) (finding an expert's declaration that "merely repeats" conclusory assertions without additional supporting evidence or any

technical reasoning is "entitled to little weight," particularly where the testimony is offered to supply a limitation missing from the prior art); 37 C.F.R. §42.65(a).

Herzog includes no discussion whatsoever of online gaming, or of any information associated therewith. (*See generally* EX-1015.)

To the extent Petitioner is suggesting that one of Herzog's unspecified "50 different parameters" *might* include online gaming information, such a suggestion is unsupported and insufficient to meet Petitioner's burden. As required under MPEP §2112(IV), some rationale or evidence must exist to establish inherency. For example, "[t]he fact that a certain result or characteristic <u>may</u> occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." MPEP §2112(IV) (*citing In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)) (emphasis in original). Further, relying on an inherency-based teaching requires, among other things, "a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." MPEP §2112(IV) (*quoting Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

The mere possibility of online gaming information being one of the "50 different parameters" of Herzog is not sufficient to establish an inherent teaching of such information. Herzog's disclosure of telemetry data associated with a race is

limited. It does not teach combining the data derived at an event with data sourced elsewhere, e.g., a sportsbook, stats provider, etc., and it does not teach otherwise creating online gaming information. There is no disclosure that would lead a POSITA to understand that Herzog's telemetry data necessarily includes online gaming information. Petitioner has failed to demonstrate that online gaming information necessarily flows from Herzog's disclosure of meta-data. Accordingly, Herzog fails to anticipate claim 21 of the '218 patent, because it fails to disclose "online gaming information."

C. Ground 2B: Petitioner Fails to Establish that Herzog in view of Ellis Renders Obvious Every Limitation of the Challenged Claims

Ground 2B challenges only dependent claims of independent claim 21; accordingly, it fails because Petitioner's grounds do not render obvious all limitations of independent claim 21.

D. Ground 2C: Petitioner Fails to Establish that Herzog in view of Spivey Renders Obvious Every Limitation of the Challenged Claims

Petitioner fails to show a reasonable likelihood of success as to any challenged claim because Petitioner: (1) fails to show that a POSITA would have been motivated to combine Herzog with Spivey; (2) fails to demonstrate that the cited prior art discloses or renders obvious the claimed "event socket" (claim 16); and (3) fails to demonstrate that the cited prior art discloses or renders obvious "online gaming information" (EX-1009, cls. 16, 21).

1. Petitioner fails to show that a POSITA would have been motivated to combine Herzog with Spivey.

Petitioner fails to show that a POSITA would have been motivated to combine Herzog with Spivey. Rather, Petitioner's rationale to combine the prior art rests on impermissible hindsight.

a) Petitioner's proposed combination is fundamentally inoperable.

Petitioner admits that "Herzog does not specifically disclose some backend server architecture supporting the data distribution—the claimed socket server," and instead proposes to supply such functionality by implementing Herzog's origin server as a "websocket server, as taught by Spivey." (Petition, 72; EX-1015, FIG. 4.)

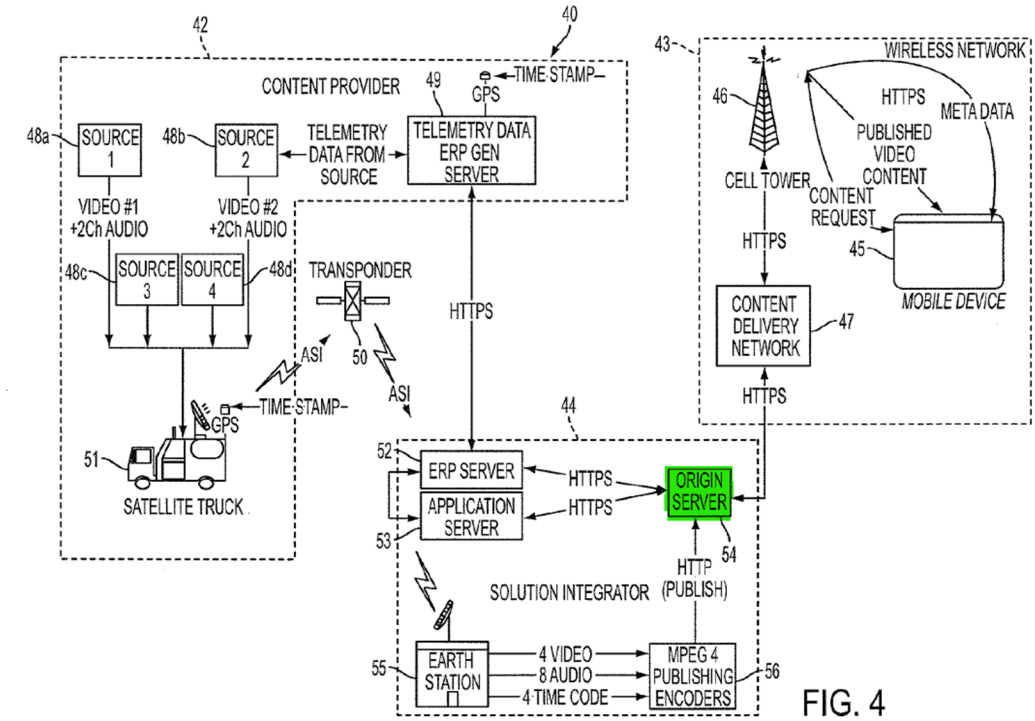


FIG. 4

But Petitioner's proposed revamp of the origin server to "improve Herzog's latency issues," (Petition, 73), ignores that Herzog's system *requires* a robust latency period to achieve its stated goal: matching timestamped video/audio streams with timestamped meta-data streams at a mobile device. (*See* EX-1015, ¶¶56, 64, 74; EX-2001, §VI.D.1.) Herzog teaches a process performed within the latency period of video/audio delivery to synchronize different delays between video/audio streams and metadata streams. (EX-1015, ¶¶74, 82.) This process relies on the projected latency period to synchronize the video/audio stream with the metadata stream. (EX-1015, ¶¶74, 82; EX-2001, ¶¶283-285, §V.C.) Therefore, as a threshold matter, nothing in Spivey provides support for Herzog's video-based latency because Herzog uses disparate latencies to implement its timestamping techniques—latency is a feature of Herzog, not a bug. (*See* EX-1015, ¶¶56, 64, 74, 82; EX-2001, ¶¶282-285.)

First, Petitioner's combination would be inoperable because, notwithstanding the absence of any reason to upgrade Herzog's data delivery system, unfettered provision of data by Spivey's architecture would detract from and even prevent Herzog's synchronization between various video/audio streams and meta-data streams, which requires a robust latency period to perform. (*see* EX-1015, ¶¶74, 82; EX-2001, §VI.D.1.a-b.) According to Herzog, in part because the video/audio stream enjoys a longer delay, the delayed time allows Herzog to retrieve

corresponding meta-data with the same VITC time stamp as the audio/video stream. Still during the latency of the video/audio stream delivery, when the meta-data is received, Herzog translates the meta-data's .JSON time stamp to the same VITC time code. (EX-1015, ¶58.) As the latency of the audio/video stream ends, both the video/audio and the meta-data are decoded and presented on the mobile device's display, with the meta-data fully aligned with the video/audio stream, ensuring that both elements are synchronized for accurate display. (EX-1015, ¶¶58-59, 63.)

Accordingly, providing faster data with Spivey (as Petitioner proposes) could only possibly result in such data waiting longer for the video/audio stream to arrive—an outcome that a POSITA would not view as an improvement and, thus, would not be attempt. (EX-2001, ¶284.) Rather, a POSITA would have understood Spivey's teachings of providing "immediate" data without the constraints of associated video feeds to render Herzog substantially inoperable. (EX-2001, ¶¶282-285.) That is, even if Spivey's message-based architecture were somehow manipulated to replace Herzog's origin server (which a POSITA would not do), the resulting combination would include unfettered provision of Spivey data payloads to the mobile device. A POSITA would not understand unfettered immediate delivery of data payloads to the Herzog mobile devices as necessary or even helpful to the mobile device user because Herzog still needs the projected latency period to

perform synchronization between audio/video data and meta-data. (*See* EX-1015, ¶¶74, 82; EX-2001, ¶¶282-286.)

Second, Petitioner's combination would be inoperable because Spivey fails to address how immediately "pushed" data could be somehow throttled or gated in a manner to synchronize with any associated television program. (*See generally* EX-1015; EX-2001, ¶¶282-286.) Spivey does not teach or suggest how to implement either its message queue server or its live data server, or any other component of its architecture, with video streaming. (EX-2001, ¶283.) Indeed, Spivey teaches techniques to "push" data payloads out "immediately," which implies inoperability with video streaming for the obvious reason that any paired video stream will not be available "immediately." (EX-1017, ¶¶38, 46, 51.) The synchronization of contextual-matched event information with digital content streaming is taught only in the specification of the '218 patent, which is unavailable to Petitioner as a basis for formulating a rationale to combine Herzog and Spivey.

b) None of Petitioner's proposed motivations to combine Herzog and Spivey withstand scrutiny.

Petitioner attempts to resolve the fundamental inoperability of its Herzog/Spivey combination with numerous proposed rationales for making the combination. (Petition, 73-76.) But each proposed rationale fails.

First, Petitioner alleges that a POSITA would have "look[ed] to improve Herzog's latency issues" and "upgrade the [Herzog] data delivery system to reduce

latency." (Petition, 73.) However, faster Herzog data (if even possible with Spivey's architecture) would not solve any video latency problem in Herzog because Herzog does not have a latency problem. Herzog *relies on* different latencies between the video/audio stream and the meta-data stream to effectuate its timestamp matching techniques. (EX-1015, ¶¶74, 82; EX-2001, ¶¶288-290.) According to Herzog, in part because the video/audio stream enjoys a longer delay, "[t]he meta-data (the slave) is now synchronized to the video/audio data (the master)." (EX-1015, ¶58.) Both the video/audio stream and meta-data stream are synchronized with the same VITC time code during the projected latency of such streams. (EX-1015, ¶58.) Accordingly, a POSITA would not have been motivated to improve alleged data latency issues in Herzog, much less looked to Spivey for a solution. (EX-2001, ¶¶291-292.)

Second, Petitioner alleges that Herzog and Spivey "relate to the same technical subject matter" and "solve the same or similar problems." (Petition, 73-74.) But Herzog and Spivey do neither. (EX-2001, ¶¶293-296.) Petitioner's interpretation of Spivey depends on broadening the data-delivery disclosure of Spivey, beyond what the reference discloses, to some nebulous notion of "content." (Petition, 27, 74-75.) Herzog, meanwhile, provides timestamp matching techniques whereby a video/audio stream and meta-data stream can be paired at a mobile device by matching a GPS-prepared time stamp of each respective stream. (EX-1015, ¶¶74, 83-84.) Herzog's audio/video stream exhibits greater latency, and thus a stream

timestamp allows the mobile device to match a slower stream with relevant information. (EX-1015, ¶¶64, 74; EX-2001, ¶290.)

Moreover, Herzog and Spivey do not solve similar problems because Herzog addresses the problem of matching a slower audio/video stream to a faster meta-data stream, and Spivey does not concern video. Accordingly, when faced with the primary Herzog reference and its audio/***video*** stream timestamp matching techniques, a POSITA would not find a reference concerned solely with data delivery to be relevant, and therefore, a POSITA would not have attempted such modification. (EX-2001, ¶¶282-286.)

Third, Petitioner alleges that "Spivey contemplates being implemented in a digital content delivery system such as Herzog," and that despite Herzog's failure to disclose the claimed socket server, "Spivey provides a complementary solution describing the details of the backend architecture for organizing and transmitting event data to multiple users." (Petition, 74.) However, merely because two pieces of technology could somehow be combined, the resulting combination is not considered obvious unless the results are predictable. MPEP §2143.01(III); *KSR*, 550 U.S. at 417-418. Petitioner's argument appears to rest on the notion that because Herzog does not specify the backend architecture of the supplemental content source, any architecture could be slotted into Herzog's system. (Petition, 73-76.) However, absent an articulated reason why a POSITA would specially choose

Spivey's architecture (among a universe of options), the Petitioner's rationale is merely conclusory. (*see* EX-2001, ¶296.) Indeed, not only does the Petitioner fail to demonstrate why a POSITA would specifically select Spivey's architecture, the Petitioner fails to recognize the significant drawbacks of Spivey's architecture, which unsuited for Herzog's system. (§VI.C.1, s*upra*; EX-2001, §VI.D.1.)

Fourth, Petitioner alleges that combining select portions of Herzog and Spivey would "require only the simple substitution of known elements for another to obtain predictable results." (Petition, 74.) However, as demonstrated herein, the Spivey disclosure does not concern video delivery; it concerns the "immediate" push of data to a subscribed device. (§VI.D.1, *supra*.) Therefore, at a fundamental level, whatever server is plucked from Spivey's disclosure to implement the Herzog origin server as, it is clear that the resulting combination would not be operable to transmit an audio/video stream and meta-data stream in the manner contemplated by Herzog, because there is nothing in Spivey concerning how to implement Spivey's teachings with video content delivery. (EX-2001, ¶¶283-286.)

c) Impermissible hindsight bias undergirds Petitioner's alleged prior art combination.

Absent a clearly articulated reason to combine Herzog with Spivey, ***Petitioner appears to rely exclusively on impermissible hindsight*** to stitch together unrelated elements of the prior art in a misguided attempt to reconstruct the invention addressed by the '218 patent. In this regard, the Petitioner divorces prior art elements

from their disclosed context and uses the ’218 patent as a guidepost for reconstructing the claimed invention.

Petitioner admits that “Herzog does not specifically disclose some backend server architecture supporting the data distribution—the claimed socket server,” and instead proposes to supply such functionality with a “websocket server, as taught by Spivey.” (Petition, 72.) Rather than draw from the state of art explicitly described in Herzog and Spivey, Petitioner appears to, as cautioned against by the Federal Circuit “fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.” *W.L. Gore*, 721 F.2d at 1553.

As one example of Petitioner’s reliance on hindsight rationale, the Petition uses the claims of the ’218 patent as a guidepost for seeking to fill in certain missing details of Herzog’s “backend” architecture. (Petition, 72 (“Herzog does not specifically disclose some backend server architecture supporting the data distribution—the claimed socket server.”); *see*, *also*, EX-2001, ¶285.) A POSITA would never embark on Petitioner’s proposed quest to upgrade Herzog’s system without full knowledge of the ’218 patent claims. For example, the ’218 patent invention addresses, among other things, the technical challenge of providing the same event information in a synchronized manner to all viewers of such broadcast (e.g., via the socket architecture and paired video stream). There is simply no basis

in Herzog to suggest that the meta-data from the origin server 54 is also concurrently provided to numerous viewers in a *synchronized manner*.

Instead, each mobile device in Herzog apparently waits for its own video/audio stream and meta-data, as requested by the respective device. (EX-1015, ¶¶70-77; EX-2001, ¶290.) Herzog describes the mobile device matching the timestamped meta-data to the video/audio stream on receipt, but Herzog fails to describe or recognize a need for ensuring that all such mobile devices are sent such streams in a synchronized manner. (*See generally* EX-1015.) To the contrary, Herzog recognizes the variability of timing such feeds, and therefore outsources this feature to each respective mobile device. (*See* EX-1015, ¶¶64, 70-77; EX-2001, ¶290.) In this regard, without first examining the claims of the ’218 patent, a POSITA would not attempt to implement Spivey’s architecture; the rationale for improvement of Herzog rather appears to derive solely from the specification of the ’218 patent.

Petitioner fails to articulate a sufficient rationale to combine Herzog and Spivey, and therefore, Petitioner has not met its burden in showing a reasonable likelihood of success.

2. The cited prior art combination does not disclose the claimed “event socket.” (Claims 16, 21)

Ground 2C—just like Ground 1—relies on Spivey as allegedly disclosing an “*event socket.*” (Petition, 31-34.) For the reasons stated above, Spivey—alone or in

combination with the other prior art—does not teach or render obvious the claimed "event socket." (§V.A.2, s*upra*.)

3. The cited prior art combination does not disclose the claimed "*online gaming information*." (Claims 16, 21)

Ground 2C—just like Ground 2A—relies on Herzog as allegedly disclosing online gaming information. (Petition, 57, 61, 68.) For the reasons stated above, Herzog—alone or in combination with Spivey—does not teach or render obvious "online gaming information." (Section V.B, *supra*.)

E. Petitioners' Grounds Fail to Render Obvious All Dependent Claims

Because Petitioner's grounds do not render obvious all limitations of the independent claims, they also fail to render obvious the challenged dependent claims.

F. Limitations Not Addressed

At this preliminary stage, Patent Owner addresses those deficiencies in the prior art which clearly show a lack of reasonable likelihood of the petition's success. Patent Owner's decision not to address certain limitations in no way reflects Patent Owner's agreement with the petition or lack of dispute.

VII. OBJECTIVE INDICIA SHOW THAT THE CLAIMS WOULD NOT HAVE BEEN OBVIOUS

When assessing obviousness of the claimed invention, objective evidence of secondary considerations pertaining to nonobviousness must be considered,

including long-felt but unsolved needs, industry praise, commercial success, etc. *In re Huang*, 100 F.3d 135, 139 (Fed. Cir. 1996). These indicia constitute "the most probative evidence of nonobviousness," "crucial in avoiding the trap of hindsight when reviewing what otherwise seems like a combination of known elements." *Leo Pharm. Products, Ltd. v. Rea*, 726 F.3d 1346, 1358 (Fed. Cir. 2013).

A. The Claimed Invention Satisfied a Long-Felt Need

Prior to the claimed invention, conventional video streaming systems hard-embedded event information which caused processing overhead and limited licensing and rights. (EX-1009, 28:59-29:10; EX-2001, ¶¶76, 78.) Another issue relates to viewer latency—the delay between when a first user generates a live video stream and when a second user receives it for viewing. (EX-1009, 2:40-65; EX-2001, ¶¶72-75, 307.) The industry recognized that "most people aren't aware that when they're watching a live stream on platforms like FaceBook or Periscope they can be anywhere from 10-30 seconds delayed." (EX-2005; *see also* EX-1009, 2:40-65; EX-2001, ¶¶68-74.) Furthermore, conventional video streaming systems struggled to deliver low-latency copies of high-quality live streams and flexible access for various viewer types. (EX-1009, 2:52-65; EX-2001, ¶75.)

The claimed invention satisfied the long-felt need for an innovative system that allows broadcasters to deliver synchronized, low-latency video and audio

content with scalable, flexible access for different types of viewers and service qualities (EX-1009, 2:49-65; EX-2001, ¶¶73-79, 306, 308; EX-2006; EX-2007.)

Specifically, the claimed invention enables enhanced live video streaming using a novel one-to-many socket architecture, allowing multiple viewer devices to receive synchronized, contextually matched event information from a single socket server. (Section II(B), *supra*; EX-1009, 20:16-30, 21:56-22:4, 22:26-57, 23:4-18, 27:23-45, 29:43-61, 53:34-50; EX-2001, ¶¶78-79, §VIII.)

The inventors were the first to recognize that incorporating dedicated socket servers, web servers, and control servers within a livestreaming server architecture could improve network functionality, enabling scalable, low-latency viewing of live events and commentary by many viewers. The patented claims expressly contemplate and claim the means for doing so—e.g., the system comprising "*a control server to periodically retrieve*" (*e.g.*, Claim 1) and "*at least one socket server communicatively coupled to the control server*" (*e.g.*, Claim 1).

B. The Claimed Invention Received Industry Praise

Patent Owner implemented its patented technologies in its video-streaming products, including a consumer-focused social network (SportsCastr) and a B2B software solution for enterprises, sports media, affiliates, and betting operators (PANDA Studio).

Over the years, Patent Owner has earned numerous accolades such as winning

Sports Tech Tokyo and being a finalist in the Yahoo! Sports Tech Awards and Sports Business Journal's Best in Sports Tech. (EX-2008.) Its technology and platform have been featured in dozens of publications and TV broadcasts including ESPN, Yahoo!, Bleacher Report, Forbes, CNBC, and many more. (EX-2009.)

Simply put, the claimed invention empowered everyday sports fans to become professional broadcasters. Unlike conventional graphics that are hard embedded into the live streams of a sports broadcast, the claimed invention allows graphics to be generated by the client device itself, thereby providing sports fans with the capability to overlay streams with real time enhancements. (EX-1009, 28:59-29:10.) Former NBA commissioner David Stern opined in an article that states "SportsCastr.Live will allow a budding sportscaster to overlay streams carrying enhancements that update in real time (e.g., live betting lines) and lend a professional look to the presentation." (EX-2007.) "What sets SportsCastr apart from the media companies that dominate the industry like ESPN, Fox Sports, NBCSN, and CBS Sports, is the unique ability for a user to act as a color commentator in a studio like setting." (EX-2007.)

The benefits and advantages highlighted by the industry result directly from the claims—*i.e.*, the architecture discussed above (including a socket server and control server). (Section II(B), *supra*.)

C. The Claimed Invention Was Praised and Copied By Petitioner

Moreover, Petitioner's own copying and praise of the claimed invention are further evidence that the challenged claims are not obvious:

From: Cody Haugen c.haugen@sportradar.com
Subject: Re: SPORTSCASTR
Date: August 23, 2019 at 8:11 AM
To: Andrew Schupak andrew@sportscastr.com, Javier E. Altamirano j.altamirano@sportradar.com
Cc: kevin@sportscastr.com

CH

Hi Andrew and Kevin,

Pleasure to meet you both!

Yes, I would love to setup a call to discuss how we can possibly work together. Are you available next week anytime?

Look forward to speaking.

Thanks,
Cody

—
Cody Haugen

Director of Sales, Digital Sport
Sportradar
O: 612-361-4012
S: cody.haugen1
E: c.haugen@sportradar.com

(EX-2015 (annotated).)

On Aug 21, 2019, at 15:07, Javier E. Altamirano <j.altamirano@sportradar.com> wrote:

Hi Andrew,

It was great meeting you at STT! Loved your presentation yesterday. We should work together, you are doing something quite innovative and love your traction.
+Cody Haugen our sales director as he should tell you about our Ad:s project, also I would love to carry on our conversation, as I said, I think you can get a lot more bang for your buck with us

What does your next week look like for you for a call?

Best,

Javi

(EX-2015 (annotated).)

Petitioner gained knowledge of Patent Owner's products under the guise of exploring partnerships, but in reality, intended to copy Patent Owner's patented products. (*See* EX-2001, ¶¶312-314; EX-2017). This copying shows that the challenged claims are not obvious. *Akamai Techs., Inc. v. Cable & Wireless Internet Servs., Inc*., 344 F.3d 1186, 1196 (Fed. Cir. 2003).

D. Patent Owner's Patented Product Enjoys Substantial Commercial Success

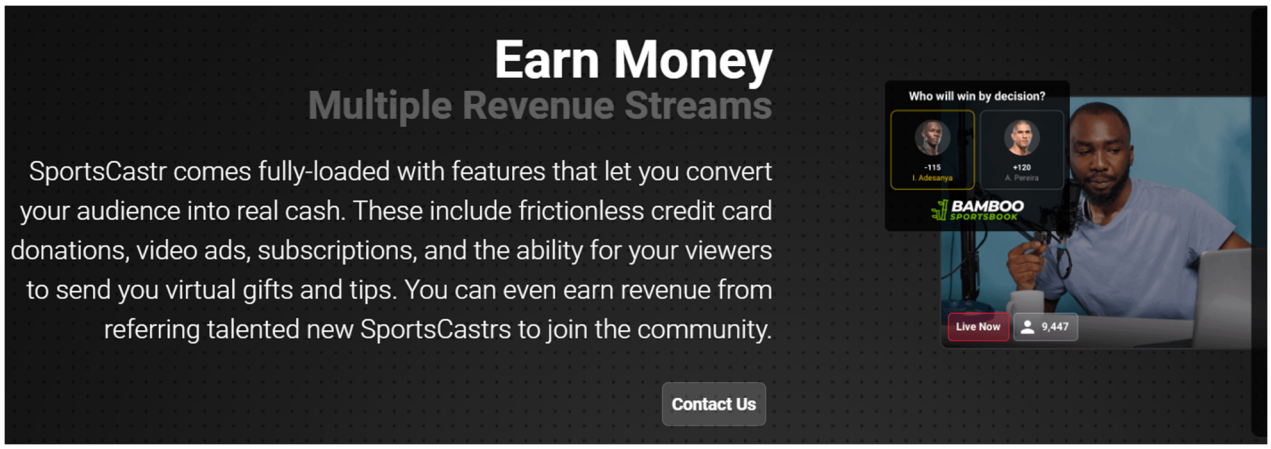
As evidenced below, Patent Owner implemented the claimed invention of the '218 patent to meet the growing demand for improved user experience when interacting with livestream broadcasters.

The claimed invention of client-side rendering enables animations and graphics in livestream content to be user-interactive. (EX-1009, 29:50-60; EX-2001, ¶310.) In the context of live events where a broadcaster provides video-based commentary, event information is sent to both broadcaster and viewer devices via a socket-based "event information channel," separate from the "video channel" carrying the live commentary stream. *Id.* By using one or more sockets specifically for event information, separate from the live stream, user-interactive features are enabled. *Id.*

This user-interactive feature has revolutionized the industry, as recognized by third parties. "The innovative sports tech product allows users and viewers to interact through an enhanced second screen experience and via social media channels…[the platform] is fully interactive and immersive because of the various clicks on the screen and the social media commentary opportunities." (EX-2007.) On an interview with CNBC, New York Giants Safety Landon Collins stated that the claimed invention embodied in SportsCastr allowed him to interact with fans: "I can tell you what happened, why this play was successful or why this person got beat, from the perspective of a defensive player." (EX-2010.)

Patent Owner advertised its implementation of the claimed invention and its benefits of low latency, live interaction with audience, and studio quality tools to customers (EX-2011; EX-2012 (touting the advantages of SportsCastr's "patented streaming platform").)

Moreover, the extensive promotion by Patent Owner of the improved user experience and revenue generation underscores how the patented technology drives demand and commercial success of the patented products:



(EX-2013; *see also* EX-2014.)

Accordingly, Patent Owner's SportsCastr and PANDA Studio, which implemented the patented method, obtained commercial success because of this technology, used by the likes of USA Today, iHeart, and FanDuel. The evidence supporting these secondary considerations constitutes strong objective evidence that the claims are nonobvious and confirms Petitioner's reliance on hindsight in constructing its deficient grounds.

VIII. CONCLUSION

For the foregoing reasons, the Board should decline to institute an IPR of the '218 Patent.

Dated: April 8, 2025

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CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER PRELIMINARY RESPONSE** specified in 37 C.F.R. §42.24 have 13,906 words, in compliance with the 14,000 word limit set forth in 37 C.F.R. §42.24. This word count was prepared using Microsoft 365 Word version 2202.

Date: April 8, 2025

Respectfully submitted,

KING & SPALDING LLP

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CERTIFICATE OF SERVICE

I certify that I caused to be served a true and correct copy of the foregoing: **PATENT OWNER PRELIMINARY RESPONSE and EXHIBITS** were served by filing this document through the Patent Trial and Appeal Case Tracking System (P-TACTS) on April 8, 2025, in its entirety on the following:

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