UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GENIUS SPORTS LTD.,
Petitioner

v.

SPORTSCASTR INC.,
(D/B/A PANDA INTERACTIVE),
Patent Owner.

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IPR2024-01309
U.S. Patent No. 10,425,697

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# PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

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[1] Unless otherwise specified, citations are to the original page, column, and line numbers in exhibits. Brackets ([]) are used to refer to the sequential page numbers added to exhibits pursuant to 37 C.F.R. §42.63(d)(2)(i).

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| Exhibit 1017 | U.S. Patent Pub. No. 2016/0036910 ("Spivey") |
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| Exhibit 1046 | Victoria Pimentel & Bradford G. Nickerson, *Communicating and Displaying Real-Time Data with WebSocket*, 16 IEEE (2012) ("Pimentel") |
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Genius Sports, Ltd. ("Petitioner") submits this Reply to SportsCastr Inc.'s (d/b/a PANDA Interactive) ("Patent Owner" or "PANDA") Response to the Petition seeking *inter partes* review of U.S. Patent No. 10,425,697 ("'697").

## I. INTRODUCTION

The '697 claims a replay of a traditional broadcasting system, using previously disclosed server components in a known way, to achieve a previously accomplished goal. Ex.1001 ¶¶61, 63-71. The purported invention enables broadcasters to "overlay streams with real time enhancements," a feature that existed since at least 1994:

Ex.1045; Patent Owner Response, Paper 15 ("POR"), 68-69.

The '697 creates its score information overlay by using the known concept of providing two or more different channels of content to user devices using known internet communication protocols. *Id.* PANDA's reply does not dispute this, but

rather discusses other features of its system such as synchronization—features not relevant to the claim language. *See* POR, 8-10, 16-17 (admitting that Ellis discloses streaming video and providing related event information over separate channels via its "generic two-track architecture"); Ex.1063, 97:3-6 ("Ellis renders video and data feed as overlays on the user device").

Petitioner first explains why Spivey's topic queues constitute the claimed "event sockets" as that issue applies to all Grounds, and then Petitioner addresses PANDA's arguments unique to each Ground.

## II. SPIVEY DISCLOSES THE CLAIMED EVENT SOCKETS AND MEANS FOR TRANSMITTING SCORE INFORMATION

Independent claims 19 and 23 recite an "event socket." Independent claim 27 recites a "means for transmitting"[2] score information. PANDA argues that Spivey does not teach these limitations for multiple reasons. Those arguments are addressed below.

[2] "Patent Owner agrees with Petitioner's construction" of limitation 27.3. POR, 12-13. "The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'" *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

### A. Spivey Discloses an MQSD-Client Connection

Patent Owner argues that Spivey does not disclose or suggest that its Message Queue Server ("MQSD") / topic queues are capable of handling communication to individual client devices because Spivey's user interfaces "all pertain to accessing the [live data access server]." POR, 3. That is incorrect. Spivey does not require the live data access server ("LDAS") to serve as an intermediary between the MQSD and the Client. Petitioner, and their expert Dr. Wicker, explained why in Spivey the MQSD may be "accessible to clients over the network directly." *See* Paper 1 ("Petition"), 40 n.8 (citing Ex.1001 ¶597 and noting other reasons).

Spivey states that the "MQS communication component 308 may also receive requests to subscribe to topics in a topic set 330, and ***may push data from topic queues 332-1, 332-n to the subscribers*** of the topics corresponding to those topic queues" (Ex.1017 ¶46), indicating that the MQSD can deliver data directly to subscribers without the necessity of an LDAS. Furthermore, Spivey clarifies that the system "***may*** include a[n] [LDAS]" (Ex.1017 ¶38), not that it must, underscoring the optional nature of the LDAS. As discussed below with reference to Figure 22 of Spivey, the functionality of the LDAS can be provided by a server functioning as both the MQSD and the LDAS. Ex.1064 ¶¶4-10.

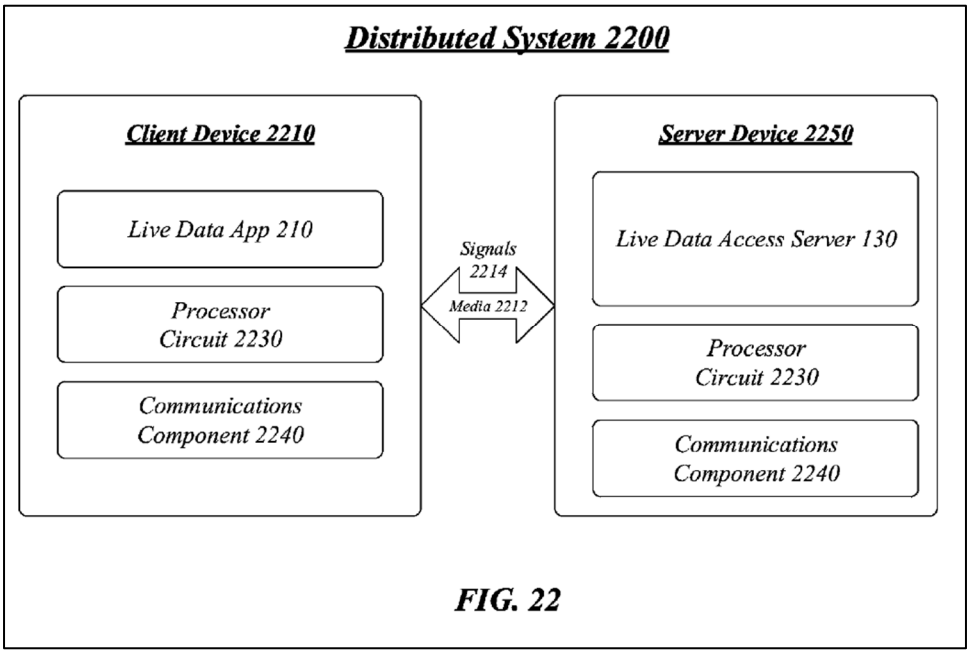
Patent Owner's expert, Dr. Rubin, reaches a different conclusion. He does not understand the term "may" as indicating that the LDAS is optional. Instead, his

approach is to assess, on a case-by-case basis, whether Spivey's system would logically function without the component in question. Ex.1063, 61:2-62:13. Petitioner disagrees. Dr. Rubin's approach is unwieldy and lacks clear, objective criteria, as it relies on a subjective, case-by-case assessment that risks inconsistency and ambiguity. During his deposition, Dr. Rubin acknowledged that "there are examples in Spivey using the language may where there is no logical way to understand it if it did not include it," but he did not offer a concrete rule for distinguishing when "may" indicates whether a component is optional versus mandatory. *Id.*, 62:8-13.

Dr. Rubin's approach effectively requires a POSA to make a subjective determination based on whether Spivey's system would "make any sense" without the component, rather than relying on explicit guidance from the disclosure itself. As a result, a POSA's understanding of "may" becomes highly dependent on the POSA's judgment of what "makes sense," potentially leading to uncertainty regarding the scope of the disclosure and what it teaches or suggests to a POSA.

The flexibility of Spivey's architecture is reinforced in the distributed system embodiment (Ex.1017, Fig. 22), where "the server device 2250 may be the same or similar to ***live data access server 130***, 1430, ***message queue server*** 120, 1420, ***and/or*** aggregator host server 1450." *See id.* ¶158. The Figure 22 architecture

allows a single server to implement the functionality of the LDAS and MQSD in a single server, facilitating direct client-MQSD communication. Ex.1064 ¶6.




Dr. Rubin acknowledges this in his deposition, stating that "the functionality of the message queue server can be implemented in the server device 2250," and that "the client device makes a direct communication to the server device 2250." He further admits that "the server device 2250 may implement that functionality, but that's not being shown in Figure 22," confirming that the architecture permits, but does not require, an LDAS intermediary. Ex.1063, 72:22-73:3, 82:3-83:1.

PANDA disagrees and argues that "Spivey's teachings, *when considered as a whole*, require the LDAS," and that without the LDAS, Spivey would not operate. POR, 6 (emphasis in original). PANDA argues that only the LDAS contains a subscription component or interface component and without such components,

Spivey's architecture would not "operate to deliver data to the user equipment shown on Petitioner's make-believe diagram."[3] *Id.*, 47; *see also id.*, 30 (discussing "necessary components"), 35 (same). However, Dr. Wicker testified that a POSA would have understood that the MQSD's communication component would act as an interface and subscription component allowing for MQSD-Client connections. Ex.2039, 34:21-35:2, 52:5-12; *see also* Ex.1064 ¶¶7-8. This is because the MQSD's communication component "may [] receive requests to subscribe to topics" where the data is pushed "from topic queues … to the subscribers of the topics." Ex.1017 ¶¶46, 49; *see also id.* ¶43 ("[C]lient communication component 208 may request and participate in a websocket connection."); Petition, 39-42.

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[3] Petitioner's diagram is not make-believe. As explained in the Petition, it is a proposed combination that renders PANDA's claims obvious. Petition, 19-24. Moreover, PANDA argues that communication channels 152-1, 152-n are "entirely of Petitioner's and [Dr. Wicker's] own making." POR, 6. Not true. First, Ellis teaches that communication path 152 provides "sports-related information … to user equipment 102 as a ***plurality of real-time data feeds***," meaning more than one, corresponding to 152-1 through 152-n. Petition, 15-17. Second, as discussed below, Spivey discloses incorporating the MQSD as a RabbitMQ server, and thus discloses multiple connections to a single device. *See* §II.C, *infra.*

Furthermore, the claim set presented in Spivey confirms that Spivey contemplated direct MQSD-Client connections. For example, Spivey's method claim 7 requires a message queue server and client device, but not an LDAS. *Id.,* Cl. 7. Claim 7 recites a "connection" between the "requested topic at a [MQSD]" and the "client device." *Id.*; Ex.1064 ¶9; *see also* Cl. 8 (claiming an MQSD-Client "websocket connection"); Cl. 1 (requiring a subscription component); Cls. 7-12 (not claiming a subscription component or interface component but still receiving subscriptions and making connections); *cf* Cl. 17 (claiming a live data entry interface).

Overall, Patent Owner's arguments improperly impose an unduly narrow reading of Spivey, effectively requiring that Spivey's architecture be incorporated into Ellis in its entirety and without modification. This approach is inconsistent with the proper obviousness analysis, which asks what the combined teachings of the references would have reasonably suggested to a POSA. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) ("The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art."). Instead of considering how the fundamental concepts and mechanisms disclosed in Spivey—such as real-time data distribution using message queue servers—could be adapted or integrated

within the context of Ellis, Patent Owner focuses exclusively on whether Spivey's LDAS is a mandatory or optional component. This narrow focus overlooks the broader inquiry of how a POSA would have understood and combined the teachings of both references. Ex.1064 ¶10.

### B. Spivey's Topic Queues Are Uniquely Addressable Communication Endpoints that Transmit Event Information

PANDA further argues that Spivey's topic queues "lack an address through which they can communicate" and thus cannot establish MQSD-Client connections. POR, 2; *see also id.*, 29-30. As the Petition and Dr. Wicker explained, Spivey's topic queues are uniquely addressable via URLs that include topic labels as part of the publicly addressable URLs, and thus are communication endpoints for multiple client devices. Petition, 39-43 (citing Ex.1001 ¶¶594-602).

Dr. Wicker explains that a topic label may be, for example, a text string such as "gamecenter.nfl.ravenssteelers," and client devices use these topic label text strings to connect and subscribe to the MQSD's topic queues. Ex.1001 ¶¶353-354, 563-564. In Spivey, the address for connecting to a topic queue may resemble a URL, and client devices can select from a list of available topics and subscribe to those queues, after which the MQSD pushes the relevant data payloads to the subscribed devices. Ex.1017 ¶¶82-84, 134 ("Message flow 1800 may begin when message queue server 1420 pushes data payloads to subscribers of the topics in message 1802").

Dr. Rubin, in his deposition, acknowledges that Spivey's topic queues can be dedicated to specific events, such as a Ravens-Steelers game, and that topic labels like "ravenssteelers.stats" and "ravenssteelers.plays" can be used to organize information hierarchically. He agrees that "data related to those topics are placed in their respective topic queues" and that "a topic queue could be, for example, related to a specific Ravens-Steeler game." Ex.1063, 77:1-78:7. Dr. Rubin also concedes that, according to the '697 specification, a URL is sufficient to make an endpoint uniquely addressable, stating, "[t]he URL is sufficient for that" when asked if an event socket is a uniquely addressable communication endpoint. *Id.*, 48:6-8. Spivey itself states, "[a] topic label may be, for example, a text string such as gamecenter.nfl.ravenssteelers" (Ex.1017 ¶66), and that client devices "request a live data connection" by selecting or entering the address or connection information which "may resemble a uniform resource locator (URL)." *Id.* ¶82. This confirms Spivey's topic queues are not only logically but also technically implemented as uniquely addressable communication endpoints. Ex.1064 ¶¶11-14.

Spivey further discloses that the topic queue connections are bidirectional, websocket connections that transmit event information. *See* Petition, 42-43 (citing Ex.1017 ¶¶43, 61); *see also* Ex.1017, Cl. 8 ("[T]he connection is a websocket connection"), Cl. 11 (transmitting a "play, a score, … a statistic," etc.). Thus,

Spivey's topic queues are uniquely addressable communication endpoints that transmit event information to a client device. Petition, 39-43; Ex.1064 ¶15.

### C. Spivey's Disclosure that the MQSD Can Be Implemented as a RabbitMQ Confirms that Spivey's LDAS Is Optionally a Separate Component

Next, PANDA undermines its own position. POR, 36-37. PANDA's admission that Spivey's MQSD may be implemented as a RabbitMQ—an architecture which permits direct connections between clients and an MQSD—effectively confirms that Spivey discloses such direct connections. *See id.* ("Spivey discloses the MQSD may be implemented as a 'RabbitMQ.'"). Nevertheless, PANDA attempts to avoid the implications of this admission by again arguing that Spivey requires an LDAS. *Id.* However, as explained above, Spivey does not require an LDAS. *See* §II.A, *supra*.

Spivey explains that "RabbitMQ facilitates ***topic queues*** that ***receive*** published messages and ***push*** the messages ***to clients*** that have subscribed to the topic queues." Ex.1017 ¶58. RabbitMQ, prior to the relevant time period here, had an architecture including an MQSD-Client connection between topic queues and

clients. Ex.1065; Ex.1066, 1.[4] RabbitMQ was a known message broker that accepted and immediately pushed messages to client devices, just like the MQSD. Ex.1065. RabbitMQ's messages flow through queues, just like Spivey's topic queues. *Id.* Moreover, according to RabbitMQ, multiple client devices can "receive data from one queue." *Id.* (noting that RabbitMQ discloses a one-to-many structure). These clients "receive messages from the queue" by connecting to the RabbitMQ server using a connection.channel function, which connects the receiver to the Topic Queue:

Full `receive.py` code:

```
#!/usr/bin/env python
import pika

connection = pika.BlockingConnection(pika.ConnectionParameters(
        host='localhost'))
channel = connection.channel()

channel.queue_declare(queue='hello')
```

*Id.* (explaining that the 'localhost' could be an IP address). *See* Ex.1064 ¶16; Ex.1017. PANDA does not dispute this, rather, they blindly maintain that Spivey

[4] Exhibit 1066 is a printout of Exhibit 1065 from the Wayback Machine Internet Archive. The toolbar at the top of the page reflects that Exhibit 1065 was publicly available by June 12, 2016.

does not disclose direct MQSD-client connections. However, as explained above, Spivey does. §II.A, *supra.*

Dr. Rubin admitted during his deposition that he was unfamiliar with RabbitMQ, stating, "I've heard of it," but when asked if he had ever used or studied it, he responded, "No. I believe that appears in some documents that I read in this case. It's recognizable to me but I have not worked with it." Ex.1063, 57:1-10. Despite this lack of direct experience, Rubin stated in his supplemental declaration, Ex.2041 ¶24, that "Spivey discusses a certain 'RABBITMQ' as one implementation of the MQSD. (EX-1017, ¶58.) It is my opinion that the RABBITMQ discussed in Spivey ¶58 would function according to the principles set forth in relation to Spivey FIGS. 1 and 4…." During his deposition, he attempted to clarify, stating "[m]y opinion is not dependent on the actual functionality of the RabbitMQ product. It has to do with the functionality of a message queue server and how Spivey describes a message queue server interacts with clients through the data access server." Ex.1063, 88:2-10. Dr. Rubin's testimony is inconsistent with the Spivey disclosure, which contemplates the optional use of an LDAS, and the RabbitMQ architecture.

### D. Spivey Discloses Bi-Directional Chat Communication (Dependent Claim 21)

PANDA argues that the prior art applied in Grounds 1 and 2 do not teach claim 21's chat limitations because "topic queues are incapable of at least 'receiving first chat information.'" POR, 52, 64. PANDA is incorrect for multiple reasons.

First, Ellis discloses the functionality of chat rooms related to the first/second live stream of digital content. Petition, 46-48, 80-82. Second, Spivey also discloses the functionality of chat rooms because it discloses using RabbitMQ as an MQSD, which are routinely used for chat room implementations. Ex.1064 ¶¶17-18. Third, Spivey discloses a dedicated chat/system event socket because it discloses multiple event sockets per live event, with hierarchal topics. Petition, 46-48. Fourth, PANDA is incorrect in arguing that Spivey cannot receive chat information. Spivey discloses bidirectional websocket connections between the topic queues and client devices, which support communications to and from the event sockets. *Id.*; Ex.2001 ¶135 (citing Ex.1017 ¶61) ("The websocket connection … may be 'a two-way connection between two entities, where each of the two entities can send and receive data simultaneously.'"); Ex.1064 ¶19 (noting that Topic Queues would be capable of receiving chat information). Thus, the prior art applied in both Grounds disclose the transmission and receipt of chat information.

## III. GROUND 1: ELLIS-SPIVEY RENDERS THE CHALLENGED CLAIMS OBVIOUS BY A PREPONDERENCE OF THE EVIDENCE

PANDA argues that a POSA would not have been motivated to combine Ellis with Spivey. As explained below, this argument is largely based on PANDA's incomplete analysis of Spivey, which fails to recognize that Spivey discloses a connection between the MQSD and at least one client device.

### A. A POSA Would Have Been Motivated to Combine Ellis-Spivey

Dr. Wicker and the Petition provide a comprehensive and well-reasoned explanation why a POSA would have been motivated to combine the content distribution systems disclosed in Ellis and Spivey, including the reduction in latency in Ellis's supplemental content distribution system. Petition, 19-24; EX.1001 ¶¶106-115. In response, PANDA contends that Dr. Wicker failed (i) to demonstrate that Ellis and Spivey are compatible and (ii) to articulate "why a POSITA would have been motivated to make the necessary modifications." PANDA further asserts that there are critical differences in Ellis and Spivey. POR, 43-44 (citing §IV.A.1.b), 45-46 (arguing inoperability and a lack of ***any flow of data*** due to Ellis-Spivey not incorporating an "intervening LDAS"), 46 ("Petitioner's Ellis/Spivey diagram does not include the LDAS"), 47-48 (arguing latency would not be reduced because the combination is inoperable). Once again, PANDA incorrectly relies on its belief that Spivey does not disclose MQSD-client connections between topic queues and at least one client device. *Id.*, 44 (asserting inoperability due to the lack of an LDAS). These arguments fail because Spivey does, in fact, teach a system with MQSD-client connections between topic queues and multiple client devices that transmit event information via websocket connections. §II, *supra*; Ex.1064 ¶¶20-22.

PANDA further contends that Spivey does not contain a database, and therefore a POSA would not have been motivated to combine Ellis-Spivey. POR,

45. This assertion is incorrect. As Dr. Wicker explained, Spivey discloses a database within the MQSD, like the database in Ellis's Supplemental Content Source. Ex.1001 ¶¶360-362, 568-570, 620-623. In any event, the presence of a database is not required in Ellis. *See* Ex.1016 ¶42; Ex.1064 ¶23.

PANDA contends that removing an LDAS from Spivey's architecture (*i.e.,* operating environment 400) would not have decreased latency, as Dr. Wicker opined. POR, 47-48. For context, Ellis indicates that its goal is to take "full advantage of today's high-end user equipment devices." Ex.1016 ¶5. As Dr. Wicker explained, a POSA would have been motivated to combine Spivey with Ellis because Spivey discusses "providing a significant advantage over the conventional practices" of data distribution. Ex.1017 ¶28; Ex.1001 ¶109 (citing Ex.1017 ¶28); Petition, 20 (citing Ex.1017 ¶28). A POSA would have understood that, by incorporating any of Spivey's embodiments, including operating environment 400 (Fig. 4) or distributed system 2200 (Fig. 22), the latency in a traditional distribution system such as Ellis's would have been improved. Ex.1064 ¶¶24-26.

PANDA further contends that Spivey's push provisions are not compatible with Ellis but does not provide any reasons to support this assertion. POR, 48-50. As Dr. Wicker explained, Ellis's video delivery and Spivey's push provisions are compatible because both disclose compatible hardware and software components that act as sources for event information to be transmitted to users. Ex.1001 ¶114.

To the extent PANDA argues that event data must be synchronized with the video feed, neither Ellis nor the challenged claims require synchronization.[5] Ex.1016 ¶41 (providing a plurality of ***real-time*** data feeds); Ex.1064 ¶27 (noting providing event data ahead of video data is helpful in a system such as Ellis that contemplates gambling); *see e.g.*, Ex.1007, Cl. 19 (requiring a live stream of digital content and related event information, not that the two are synchronized to one another).

Additionally, Dr. Rubin asserted that adding Spivey's operating system 400 would leave "the system without a source of supplemental content." Ex.2001 ¶208. This is incorrect, because the supplemental content (event information) is received by the LDSD at the LDS Communication Component. Ex.1001 ¶¶109, 346-47, 374-75, 554-56, 586-87. Furthermore, Ellis does not require that the Supplemental Content Source ***generates*** the content, it only needs to function as an "intermediate content provider" that is "configured to provide real-time sports scores." Ex.1016 ¶¶41-42; Ex.1064 ¶¶28-29.

[5] Ellis also discloses a system where no video feed is distributed, mooting PANDA's argument. Ex.1016 ¶41 ("[S]upplemental content source 120 may include information relating to sporting events not available for viewing in media system 100. For example, a non-televised game may nevertheless have associated sports-related information available on supplemental content source 120.").

Lastly, PANDA contends that Petitioner did not offer any "clearly articulated reason[s] to combine" Ellis and Spivey, and therefore must have relied on hindsight bias. POR, 50-51. However, as discussed above, Petitioner provided clearly articulated reasons to combine Ellis and Spivey, and PANDA's arguments against those motivations are unpersuasive. A clearly articulated motivation to combine is the best defense against allegations of hindsight.

## IV. GROUND 2: HERZOG-ELLIS-SPIVEY RENDERS THE CHALLENGED CLAIMS OBVIOUS BY A PREPONDERENCE OF THE EVIDENCE

PANDA argues that the prior art asserted in Ground 2 fails to render claims 19, 23, and 27 obvious because the prior art does not disclose an "event socket" and/or "means for transmitting" the score information, relying on the same arguments PANDA made for Ground 1. POR, 54. For the reasons discussed above, however, Spivey does teach the claimed event socket or means for transmitting and thus Herzog–Spivey–Ellis renders claims 19, 23, and 27 obvious. §§II-III, *supra*. PANDA also contends that claims 20-22, 24-25, and 28-30 are patentable because claims 19, 23, and 27 are patentable. POR, 64. For the same reasons as discussed above, Herzog-Ellis-Spivey renders claims 20-22, 24-25, and 28-30 obvious. §§II-III, *supra*. Lastly, PANDA argues that Claim 21 is patentable for the same reasons as in Ground 1. POR, 64-65. For the same reasons discussed above, Herzog-Ellis-Spivey renders claim 21 obvious. §II.D, *supra.*

### A. A POSA Would Have Been Motivated to Combine Herzog-Ellis-Spivey

Petitioner and Dr. Wicker articulated a well-reasoned analysis of why a POSA would have been motivated to combine Herzog, Ellis, and Spivey. Petition, 60-66. PANDA's primary issue with the rationale appears to stem from a misunderstanding. PANDA argues that Herzog requires latency to function, and thus a POSA would not have been motivated to reduce Herzog's data-delivery latency. POR, 6-8, 54-55, 60. Petitioner agrees, but only to the extent that the video data must have latency. Petition, 63 (maintaining video content delivery system). A POSA would have known that reducing the data-distribution latency would have improved the system's capabilities and thus a POSA would have been motivated to combine Herzog-Ellis-Spivey. Petition, 60-66; Ex.1064 ¶30. As admitted by PANDA, the latency period between the video feed and the data feed is an intended ***feature*** of Herzog, not a bug. POR, 60.

For Herzog, a greater latency difference between the live video stream and data stream is preferable. This is because the user requests the meta-data after the live-video data has already begun playing at the user device. Ex.1015 ¶¶70-77. Accordingly, reducing the data delivery period while maintaining the video latency period provides the system more time to process multiple requests and reduce demand on its components. Herzog employs a "pull-based" architecture, which can increase load on server components by adding many requests to the server. In

contrast, Spivey's "push-based" architecture delivers data as soon as it is added to a queue. Ex.1064 ¶¶31-32; *see also* Ex.2001 ¶186 (noting that increased load increases latency and delays messages); Petition, 69-72. Thus, a POSA would have been motivated to decrease the data-delivery latency period while maintaining "Herzog's video content delivery system." Petition, 63.

PANDA contends that reducing latency in the data delivery "could only possibly result in such data waiting longer for the video/audio stream to arrive." POR, 60. This argument reflects PANDA's misunderstanding of Herzog. Herzog does not send the data to the client device where it waits for the video; rather, Herzog time stamps the metadata and then distributes it accordingly. Ex.1015 ¶¶70-77. As discussed above, this data-distribution approach would benefit from implementing Spivey's socket connection architecture, which would have been an upgrade from Herzog's HTTP polling technology.[6] S*ee* Ex.2001 ¶186; Petition, 71-72.

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[6] PANDA also concludes, confusingly, that this reduced latency would "require additional servers" due to "all of the additional, faster-arriving data, which would invariably require additional servers, databases, and other components a POSITA would understand to consumer [sic] system resources and result in over [sic] unreliability." POR, 60. Petitioner is unsure what PANDA means by "all of the additional, faster arriving data" because Petitioner is simply decreasing the latency

PANDA also contends that the "unfettered provision of Spivey data payloads" to mobile devices would render Herzog inoperable. POR, 60-61. This is incorrect. Providing event information as taught by Spivey would not have rendered Herzog inoperable because Spivey is simply transmitting data from one server to a client device—something Herzog, Ellis, and Spivey were all designed to do. Ex.1064 ¶33. Furthermore, PANDA's "unfettered provision" argument is a strawman. Neither Petitioner nor Dr. Wicker suggested any such "unfettered provision" of data. Rather, the same amount of data would be time stamped and delivered with low latency to mobile devices, without requiring the mobile device to make additional requests. *Id.* ¶34 (discussing that the client would only make additional requests when changing the video); *see* Ex.1001 ¶¶80-87, 500, 532, 568-570, 703-704.

PANDA's attacks on Petitioner's motivation to combine are misplaced. For example, PANDA argues that the combined system would suffer from video latency. POR, 61-62. Petitioner does not disagree. As discussed above, video latency is an intended feature, not a bug, which allows Herzog to "synchronize the broadcasting of contextual-matched event information and video signals to multiple viewers." POR, 9-10, 60; Petition, 63 (maintaining Herzog's video content delivery system).

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of, and the requests made to, the data distribution system—Petitioner nowhere required increasing the amount of data collected or supplied. *See* Petition, 75-77.

PANDA makes another strawman argument that Spivey's websockets are incapable of streaming audio/video. That is incorrect. As discussed in the Petition, Herzog would maintain its video-content delivery system. Petition, 63 (upgrading the data delivery system with Spivey's features). In any event, sockets were capable of transmitting video/audio streams. Ex.1064 ¶35.

PANDA next presents a conclusory assertion, incorrectly contending that Petitioner added Ellis to introduce the concept of "Providing Users with Sports Score and Sports Commentary Information Using Separate Communication Channels," without citing any support in the record. POR, 62-63. In fact, contrary to PANDA's argument, Herzog itself teaches providing event information over separate communication channels from video/audio streams. Petition, 76-77. Additionally, Ellis teaches that those event information channels can be provided as a "plurality of real-time data feeds." *Id.*, 80-82 (quoting Ex.1016 ¶41). As Petitioner and Dr. Wicker explained, a POSA would have introduced Ellis into this combination to teach the features of multiple events and chat information provided over a separate feed. *Id.*, 65-66.

Lastly, PANDA concludes that Petitioner's combination relies "exclusively on impermissible hindsight bias" because Petitioner allegedly did not provide a "clearly articulated reason to combine" Herzog-Ellis-Spivey. POR, 63. Petitioner disagrees. The Petition provides clearly articulated reasons why a POSA would have

been motivated to combine Herzog, Spivey, and Ellis, including the fact that a POSA would have wanted to add the increased functionalities of websocket communications to Herzog. Petition, 60-66; Ex.1001 ¶127 (citing ¶110 via §IX.A.1). Thus, PANDA's argument that Petitioner relied on hindsight bias fails.

## V. SECONDARY CONSIDERATIONS

In its Institution Decision, the Board gave "little to no weight" to Patent Owner's evidence of secondary considerations of nonobviousness. Paper 9 ("ID"), 29-31. In its POR, PANDA essentially copied and pasted the ***same*** secondary considerations of nonobviousness from its Preliminary Response. *Compare* Paper 8, 61-72 *with* POR, 65-75. Thus, PANDA's arguments contain the same deficiencies as identified by the Board in its ID. The Board should again accord PANDA's evidence "little to no weight." In any event, Petitioner still addresses certain arguments below.

### A. PANDA Does Not Show Any Long-Felt Need

PANDA argues that their alleged invention satisfied a long-felt need because "prior to the claimed invention, conventional video streaming systems hard-embedded event information." POR, 66. Moreover, PANDA argues that the "claimed invention" delivers "synchronized, low-latency" video content with "scalable, flexible access for different types of viewers and service qualities." *Id.* PANDA's arguments fail because first, PANDA did not contest Petitioner's

argument that Ellis is a video streaming system that provided event information over a separate channel, which is not hard embedded in the video stream. *See, e.g.*, POR, 16 (discussing Ellis's "two-track architecture"). Second, representative claim 19 simply requires media sources to receive the live stream of digital content and distribute it. Ex.1007, cl. 19 (limitations 19.1-19.4). In no way does that claim language relate to any synchronized, low-latency, scalable, flexible, or new and improved video streaming technique. S*ee* POR, 67 (discussing a webserver and its functionality as well as synchronized event data, which are not a part of the claims). PANDA concludes that its inventors "improve[d] network functionality, enabling scalable, low-latency viewing of live events and commentary" without citing any evidence. *Id.*, 67-68.

Thus, the Board should accord "little to no weight" to Patent Owner's evidence of long-felt need.

### B. PANDA Does Not Show Any Relevant Industry Praise

PANDA attempts to show industry praise by pointing to three accolades that "Patent Owner has earned," without explaining how those awards relate to any embodying product, much less any relation between the award and the '697's claims. POR, 68. For example, PANDA notes that it was a finalist for "Best App," but that does not explain how that award is related to the claimed "inventive server and memory storage architecture." Ex.2008, 2, 3; Ex.1006, 3:7-11; *see also* POR, 68-69

(failing to explain which product, or which portion of that product, is being awarded and how that relates to the claims); Ex.2008 (same); Ex.2009 (same). Moreover, the late David Stern was an investor in PANDA and in no way provides evidence of ***industry*** praise. POR, 69; Ex.2006 ("A founding investor, Stern ….").

Thus, the Board should accord "little to no weight" to Patent Owner's evidence of industry praise.

### C. PANDA Does Not Show Any Copying

Petitioner vehemently denies PANDA's unsubstantiated accusations that Petitioner copied its products or was aware of its patents. PANDA argues that Petitioner has "been aware of and praised Patent Owner's patented products and technology since 2018" or "had access to the patented product." POR, 69-71. PANDA supports its claim with two emails that show Petitioner, at most, saw PANDA's basic features and spoke politely over email correspondence. *Id.,* 70. To take those two emails and argue that Petitioner had any access to, or awareness of, PANDA's patents or allegedly "inventive server and memory storage architecture" (backend implementation details) is preposterous. If anyone at PANDA actually believes such serious accusations, PANDA should have filed an affidavit from the individual, rather than hiding behind two nondescript emails.

Thus, the Board should accord "little to no weight" to Patent Owner's evidence of copying.

### D. PANDA Does Not Show Substantial Commercial Success

A patentee demonstrates commercial success by showing significant sales of the patented product in a relevant market and nexus between the patented invention and the commercial success. *Ormco Corp. v. Align Technology, Inc.*, 463 F.3d 1299, 1311-12 (Fed. Cir. 2006). PANDA does not discuss or cite any sales information of any patented product in any market. POR, 71-75. PANDA does not explain how there is a nexus between the nonexistent sales and the patented invention's claims. *Id.*, 71-73. If anything, PANDA advertised its "custom-tailor[ing] for the unique needs of sports publishers" and "new ways to increase engagement" as selling points, not any patented, allegedly "inventive server and memory storage architecture." *Id.* (quoting Ex.2011).

The Board should accord "little to no weight" to Patent Owner's evidence of substantial commercial success.

## VI. CONCLUSION

For the foregoing reasons, Petitioner respectfully requests that the Board cancel the Challenged Claims.

Date: August 22, 2025

Respectfully submitted,

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## CERTIFICATE OF COMPLIANCE

This paper complies with the type-volume limitations of 37 C.F.R. §42.24. This paper contains 5,172 (5,600 limit) words, excluding the portions of the paper exempted by §42.24(a). This paper also complies with the typeface requirements of 37 C.F.R. §42.6(a)(ii) and the type style requirements of §42.6(a) (iii) and (iv).

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a copy of the foregoing document was served on August 22, 2025, via electronic mail directed to counsel of record for the Patent Owner as follows:

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