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Paper 52
Dated: May 29, 2026

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

STINGRAY GROUP INC. and STINGRAY MUSIC USA, INC.,
Petitioner,

v.

EDWIN A. HERNANDEZ-MONDRAGON,
Patent Owner.

IPR2025-00349
Patent 10,123,074 B2

Before TERRENCE W. McMILLIN, JASON M. REPKO, and BRIAN P. MURPHY, *Administrative Patent Judges*.

REPKO, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Patentable
35 U.S.C. § 318(a)

I. INTRODUCTION

Stingray Group Inc. and Stingray Music USA, Inc. (collectively, "Petitioner") filed a petition (Paper 1, "Pet.") requesting *inter partes* review of claims 1–21 of U.S. Patent No. 10,123,074 B2 (Ex. 1001, "the '074 patent").

On June 13, 2025, we instituted an *inter partes* review of all challenged claims based on all grounds in the Petition. Paper 19 ("Inst. Dec."). Patent Owner filed a Response. Paper 32 ("PO Resp."). Petitioner filed a Reply. Paper 39 ("Reply"). Patent Owner filed a Sur-reply. Paper 39 ("Sur-reply"). An oral hearing was held on March 12, 2026. A transcript of that hearing has been entered into the record. Paper 51 ("Tr.").

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued under 35 U.S.C. § 318(a). For the reasons that follow, Petitioner has not shown by a preponderance of the evidence that claims 1–21 are unpatentable.

A. Related Matters

According to the parties, the challenged patent has been asserted in *Hernandez v. Stingray Group, Inc.*, No. 1:24-cv-21226 (S.D. Fla. Apr. 2, 2024). Pet. 5; Paper 4, 2 (Mandatory Notices).

B. The '074 Patent

The challenged patent generally relates to cloud-based delivery of multimedia content to cable or satellite providers. Ex. 1001, 1:16–18. A cable or satellite provider can request a media stream from a cloud service for playback on a broadcast-media channel. *Id.* at 2:50–53. Before providing the media stream, the system generates multimedia files in a format that is compatible with the content provider. *Id.* at 2:58–60. To create the file, the system can generate a sequence of screen captures of a webpage. *Id.* at 7:21–

24. When all the screens are captured, the resulting video file can be merged with the original file. *Id.* at 7:24–27.

C. Claims

Of those challenged, claims 1, 12, and 17 are independent. Claim 1 is reproduced below.

> A computer-implemented method comprising:
>
> receiving, from a content provider, a request for at least one media stream for playback on a broadcast media channel, wherein the at least one media stream includes a plurality of multimedia items of different types;
>
> obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;
>
> rendering a web page by a browser using the content;
>
> generating a temporal sequence of screen captures of the rendered web page, where each screen capture defines all the content of the web page at a given time, and at least two adjacent screen captures illustrate a dynamic change of at least a portion of the content over time;
>
> assembling the at least one media stream using the temporal sequence of screen captures; and
>
> providing the at least one media stream to the content provider for broadcast on the broadcast media channel.

Ex. 1001, 14:47–64.

D. Evidence

Name	Reference	Exhibit No.
Avellan	U.S. Patent No. 8,954,600 B2 to Avellan, filed on Mar. 2, 2012, issued on Feb. 10, 2015	1003
Durante	U.S. Patent No. 8,819,043 B2 to Durante, filed on Nov. 9, 2010, issued on Aug. 26, 2014	1004
Ma	U.S. Patent No. 9,635,075 B2 to Ma, filed	1005

	on Mar. 8, 2010, issued on Apr. 25, 2017	
Suzuki	U.S. Patent No. 6,463,445 B1 to Suzuki, filed on Sept. 30, 1999, issued on Oct. 8, 2002	1006
Wannamaker	U.S. Patent Application Publication No. 2004/0031052 A1 to Wannamaker, published on Feb. 12, 2004	1007
Heikens	U.S. Patent No. 7,778,279 B2 to Heikens, filed on June 5, 2007, issued on Aug. 17, 2010	1008
Matthews	U.S. Patent No. 9,264,750 B2 to Matthews, filed on Dec. 23, 2010, issued on Feb. 16, 2016	1009
Wilsher	U.S. Patent No. 9,240,966 B2 to Wilsher, filed on May 8, 2014, issued on Jan. 19, 2016	1010

E. Asserted Grounds

Petitioner asserts that claims 1–21 are unpatentable on the following grounds. Pet. 6–8.

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1–6, 8, 9, 12–15, 17, 18, 20	102	Avellan
5	103	Avellan, Durante
6	103	Avellan, Ma
7	103	Avellan, Suzuki
10, 11, 21	103	Avellan, Wannamaker
16	103	Avellan, Heikens
19	103	Avellan, Matthews
20	103	Avellan, Wilsher
20	103	Avellan

II. ANALYSIS

A. Level of Ordinary Skill in the Art

According to the Petition,

> a Person of Ordinary Skill in the Art ("POSITA") at the time of the claimed invention would have a bachelor's or equivalent degree in computer science or a related field and at least 2 years of experience in multimedia processing or delivery using internet protocols. Furthermore, a person with less formal education but more experience, or more formal education but less experience, could have also met the relevant standard for a POSITA.

Pet. 14–15 (citing Ex. 1002 ¶ 68).

Patent Owner submits a similar definition and does not dispute the Petition's characterization of the level of ordinary skill in the art. PO Resp. 22.

No express finding is necessary. The level of ordinary skill in the art is reflected by the prior art of record. Any perceived difference in how each party characterizes a POSITA does not change our analysis or conclusions.

Neither party has offered any claim construction arguments, relying on ordinary and customary meaning. Pet. 14–15; PO Resp. 22. We determine that construction of claim terms is not necessary to resolve the disputes raised by the parties in this proceeding.

B. Avellan

1. Claim 1

In the first ground, Petitioner argues that independent claim 1 is unpatentable as anticipated by Avellan. Pet. 8.

Claim 1 recites, in relevant part,

> [1c] rendering a web page by a browser using the content;
>
> [1d] generating a temporal sequence of screen captures of the rendered web page, where each screen capture defines all the content of the web page at a given time, and at least two adjacent screen captures illustrate a dynamic change of at least a portion of the content over time;
>
> [1e] assembling the at least one media stream using the temporal sequence of screen captures . . . .

Ex. 1001, 14:55–62 (Petitioner's numbering added).

a. Petitioner's Arguments

According to the Petition, "Avellan discloses that the requested media stream includes a plurality of multimedia items of different types" because,

> In the same way [as the challenged patent], Avellan teaches that "there can be a number of broadcast channels and each channel can have a specific theme, such as country music, military television, etc." Ex-1003 at 8:25–27. "The user can then tune the browser 106 to one of the broadcast channels to receive that content. Thus, the broadcast channel can be configured here to receive live content, or to update the storage device 110 of the user computer 104." Ex-1003 at 8:27–31. As an example, "[i]f a large number of viewers choose to select a certain hockey game,

> that page of the website can also be sent in the broadcast mode." Ex-1003 at 8:34–36. Avellan states that "suitable sites for the broadcast mode are news sites like CNN, BBC, newspaper, live streaming television feeds, movies, music downloads, or ESPN." Ex-1003 at 8:18–21.

Pet. 19. So, according to the Petition, Avellan's content from a broadcast channel, such as a hockey game, corresponds to the claimed "multimedia items of different types." *Id.*

Petitioner argues that Avellan discloses limitation [1c] because Avellan's browser relies "upon the computing power and very high-speed connection of the gateway server 134 to resolve and render pages, images, and documents from the networks 150, 152." Pet. 21 (quoting Ex. 1003, 4:62–65). As for limitation [1d], Petitioner argues that "for content that includes playback of video, streaming information or animations, Avellan generates a temporal sequence of screen captures during the entirety of that playback until the video, streaming information, or animation has, for example, stopped or restarted—i.e., until the gateway detects that there is a 'repeating pattern.'" *Id.* at 23; *see also* Reply 10–11 (citing Ex. 5:5–10). As for limitation [1e], Petitioner argues that, after the screen-capture process completes, Avellan compresses "the data into a compressed digital video format that can be sent to the user computer 104 for display in the browser 106." Pet. 24 (quoting Ex. 1003, 5:20–5:22). Petitioner argues that the claim does not exclude compressed files. *See* Reply 11–13.

b. Patent Owner's Response

Patent Owner argues that Avellan renders and generates a temporal sequence of screen captures from web pages but not the multimedia items on those pages, e.g. video. PO Resp. 26–29. Rather, Patent Owner points out that the compressed video created from the screen-capture process is

associated with a tag file. *Id.* at 18. Patent Owner notes, "The tag file is preferably transmitted to the user computer 104 with the compressed video data, so that the information is synchronized." *Id.* at 20 (quoting Ex. 1003, 13:55–57). In Patent Owner's view, "a POSITA would understand that [limitation [1e]] recites more than transmitting or displaying individual media items." *Id.* at 21.

c. Analysis

"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 Bros. v. Union Oil Co. of California,* 814 F.2d 628, 631 (Fed. Cir. 1987).

We are persuaded by Patent Owner's argument that Avellan does not anticipate claim 1 because it does not assemble a media stream of multimedia items using the recited screen captures. *See* PO Resp. 26–29. We agree with Patent Owner that the plain language of the claim requires more than transmitting individual media items. Sur-reply 21. To the extent that Avellan captures images, those images do not meet the claimed requirements for a "temporal sequence of screen captures" in the independent claims, which must (1) be of the web page rendered by a browser, (2) "define all the content of the web page at a given time," (3) "illustrate a dynamic change of at least a portion of the content over time" when two of them are compared, and (4) used to assemble "the at least one media stream." Rather, the record better supports Patent Owner's argument that Avellan transmits the multimedia items separate from any media stream assembled from screen captures. PO Resp. 26–29; Sur-reply 21.

Considering all the arguments and evidence, Avellan does not work in the way that the Petition describes. Under Petitioner's mapping, Avellan's

broadcast-channel content, such as a hockey game, corresponds to the claimed "multimedia items of different types" in [1a]. *See* Pet. 18–19; *see supra* Section II.B.1.a. As for limitation [1d], Petitioner argues that Avellan continuously captures screen images that depict the live action of a hockey game:

> By continuously capturing screen images of information that is rendered over time—such as "video, streaming information, or an animated display"—two adjacent screen captures will illustrate a dynamic change of at least a portion of that content over time. Ex-1002, ¶111. For example, if a streaming hockey game is being rendered, a screen capture at Time 1 followed by a screen capture at Time 2 will illustrate a dynamic change in that game, such as the movement of players on the ice between Time 1 and Time 2—*i.e.*, a dynamic change of at least a portion of the content over time. Ex-1002, ¶111.

Pet. 23. For this argument, Petitioner does not cite to any part of Avellan in support. *See id.* Instead, Petitioner cites to paragraph 111 of Mr. Lipoff's declaration as the sole basis for this argument. *Id.*

Yet paragraph 111 of Mr. Lipoff's declaration merely repeats the Petition's argument almost verbatim. *Compare* Ex. 1002 ¶ 111, *with* Pet. 23. Mr. Lipoff does not add any citation to Avellan or any other source that supports his testimony. *See* Ex. 1002 ¶ 111. Nor does Mr. Lipoff offer any additional technical reasoning than what is stated in the Petition. Testimony may be entitled to little weight if it merely restates the petition's unsupported, conclusory assertions without adding supporting evidence or technical reasoning. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (PTAB Aug. 24, 2022) (precedential). That is the case here.

Also, Mr. Lipoff's testimony and Petitioner's argument appears to be based on a misreading of the relevant parts of Avellan. Specifically, Avellan discusses the hockey game in column 8. Petitioner relies upon this

embodiment in its challenge. *See, e.g.*, Pet. 19 (citing Ex. 1003, 8:25–27; 8:27–31; 8:34–36; 8:18–21). But, contrary to Petitioner's arguments and Mr. Lipoff's testimony, this embodiment does not discuss capturing the live action of a hockey game. Rather, Avellan describes sending game scores:

> For instance, the main page of ESPN presents the same information to all viewers, which may *include scores of hockey games and basketball games*. If a large number of viewers choose to select a certain hockey game, that page of the website can also be sent in the broadcast mode. On the other hand, if the user desires information which is not frequently viewed (such as about high school sports on ESPN), that information will be delivered to the computer 104 in the unicast mode and optionally stored at the storage device 110 of that computer 104.

Ex. 1003, 8:32–41 (emphasis added). Here, Avellan is describing the "main page of ESPN" presenting information to "viewers." *See id.* Avellan states that the main page includes game scores, not live games. *Id.*

The paragraph refers to "broadcast mode," which is not restricted to live-action streaming. *See* Ex. 1003, 8:32–41. Rather, broadcast mode "is used to send the same information to a wide number of user computers 104." *Id.* at 8:14–15. "[T]he broadcast data is intended to include the most frequently visited and/or graphics-intensive web pages, but less specifically customized information." *Id.* at 8:14–19. Although the system can provide live television feeds, Avellan expressly teaches that broadcast mode can be used for frequently visited websites—like a main page that displays scores. *See id.* at 8:14–21, 8:32–41. In sum, Mr. Lipoff's testimony (Ex. 1002 ¶ 111) and Petitioner's corresponding argument (Pet. 23) misread Avellan's description of a web page showing hockey scores as a web page showing a live hockey game. Thus, we disagree with Petitioner's argument that Avellan teaches limitation [1d] by capturing screens of a hockey game.

Pet. 22–23. Rather, the record better supports Patent Owner's argument that Avellan is referring to images of web pages. *See, e.g.*, Sur-reply 13 (citing Ex. 1003, 8:19–21).

Petitioner also points to the description in column 4 of Avellan to support its argument that "Avellan teaches generating screen captures of the rendered web page, where each screen capture defines all the content of the web page at a given time." Pet. 22 (citing Ex. 1003, 4:65–5:4).

Patent Owner correctly points out that there is no explanation of "how the audio is mapped to the screen captures." Sur-reply 21. That is, in the cited paragraph, the term "images," as used by Avellan, is broader than simply capturing an image of a website rendered on the screen. For example, Avellan explains, "The gateway server 134 then *images* those web pages (which are typically in an HTTP format) to a video or image frame format." Ex. 1003, 4:65–67, *cited in* Pet. 22. Here, Avellan means video or image format when it discusses how it "images" the webpage. *See id.*

If Avellan is simply storing the video on the page when it "images" or "captures" the webpage, then Petitioner has not sufficiently shown how Avellan teaches or suggests "assembling the at least one media stream using the temporal sequence of screen captures," as recited in [1e]. We agree with Patent Owner that the plain language of [1e] requires more than just transmitting individual media items. Sur-reply 21. If the claim encompassed simply transmitted the video, for example, then it is unclear what would need to be "assembled" in [1e] because the video would already exist in an assembled state. Under this reading, there would be no difference between the "media stream" in [1e] and screen captures that the stream is assembled from in [1d], and the step of "assembling" would have no meaning at all.

Thus, we agree with Patent Owner's argument that compressing a video and storing it does not meet the assembling recited in [1e]. PO Resp. 29.

The cited parts of Avellan (*see, e.g.*, Pet. 22 (citing Ex. 1003, 4:65–5:4); Pet. 24 (citing Ex. 1003, 5:12–5:15; 5:20–22); Reply 10–11 (citing Ex. 1003, 5:5–5:10)) at most suggest that the imaging process somehow collects the data on the webpage (e.g., audio) and stores it in a compressed format. This is very different from Petitioner's view that Avellan is taking screen captures of live streamed video (*see, e.g.*, Tr. 8:6–8), such as a hockey game (Pet. 23). Thus, Petitioner has not sufficiently shown how Avellan assembles a stream from the sequence of screen captures, as limitation [1e] requires. *See* Pet. 24.

During the oral argument, Petitioner again argued that Avellan is "taking a series of screen captures for moving content such as video or live-streaming, . . . saving a series of those screen captures. . . [a]nd then transmitting that as a broadcast." Tr. 8:6–8. Petitioner was asked to identify any support from Avellan for this argument. *See, e.g.*, *id.* at 8:23–24, 11:15–16, 12:24–25. Petitioner pointed to the paragraph appearing in column 5 of Avellan. *See id.* at 14:23–15:7. Petitioner relies on this paragraph in addressing limitation [1d] for generating the temporal sequence (Pet. 22–23 (citing Ex. 1003, 5:5–12)) and limitation [1e] for assembling the stream (Pet. 24 (citing Ex. 1003, 5:12–15)).

The cited paragraph from column 5, though, is silent with respect to how a video appearing on the webpage is captured:

> In addition, web pages often have information which is rendered over a period of time, such as a video, streaming information, or an animated display. Accordingly, the gate way server 134 continuously *captures images* of the web page until it detects a repeating pattern of information in the web page. Thus,

> the gateway server 134 will be certain to capture all the information on the web page even if that information continues over a period of time. Once the page is *imaged (including any audio on the web page)*, the gateway server 134 compresses the image or video frame format and sends it to the browser 106 via the satellite 102.

Ex. 1003, 5:5–15 (emphasis added). As in Avellan's fourth column, discussed above, Avellan here uses the term "image" in the broad sense to describe capturing data, including audio, not just creating a file in image-frame format. *See id.* Avellan explains that it converts the "HTTP code to an image frame format" (*id.* at 5:30) but, for the other items, "any suitable technique can be used" (*id.* at 5:25–32). We see no support for Petitioner's argument that Avellan is taking a series of screen captures of streaming video. Tr. 8:6–8.

To the contrary, the rest of Avellan suggests that taking a series of screen captures of moving content would not be a suitable technique. For example, Avellan contrasts "websites" with "movies." *See* Ex. 1003, 14:60–64. Avellan explains that "movies can be broadcast to user computers 104." *Id.* at 14:63–64. Likewise, Avellan describes that video-related services require additional requirements that are not present in webpages:

> It will be apparent that the virtual browser 106 can be any software application which can display the received video frame data to look like the web page is actually being displayed in a browser. The gateway servers 134 *may also be configured to handle other computational requirements of multimedia and video related services accessed by users*.

Id. at 6:55–60. This aligns better with Patent Owner's argument that Avellan transmits individual media items (Sur-reply 21) because the passage states that these video-related services are met by "other computational requirements" (Ex. 1003, 6:55–60).

During the oral hearing, Patent Owner suggested that Avellan may transmit the multimedia items such as video could be transmitted as "tag files." *See* Tr. 65:12–66:25. Patent Owner's tag-file theory is better supported than Petitioner's explanation because Avellan describes tag files as a way to transfer selectable fields or "other items which may require user interaction," such as buttons, links, scroll bars, or other items. *See* Ex. 1003, 5:33–52. Transmitting streaming video would appear to meet this if streaming video files had playback buttons or scroll bars for the user to interact with, for example. If that is indeed the case, transmitting the video as a separate tag file would not meet limitations [1d] or [1e] because the stream must be assembled from the screen captures—not separate tag files. Avellan's discussion of tag files further undermines Petitioner's argument because it shows that Avellan has other ways to transmit the media file apart from capturing a screen in image format that is then assembled to a media stream. *See id.* For this additional reason, the evidence does not support Petitioner's explanation of how Avellan operates.

Petitioner argues that Patent Owner solely relies on an expert report authored by the Patent Owner himself, Dr. Edwin Hernandez, who is not an unbiased or independent expert. Reply 1–4. We do not rely on any part of the Dr. Hernandez's Declaration. The Board is capable of resolving the issues without it because Avellan's disclosure simply does not support Petitioner's arguments for all the reasons discussed above.

Thus, Petitioner has not shown that Avellan discloses the "temporal sequence of screen captures" recited in [1d] or [1e] in claim 1 and has not met its burden to show that claim 1 is unpatentable as anticipated by Avellan.

d. Claims 2–21

Independent claim 12 recites a system with an operation of "generating a temporal sequence" similar to the generating step recited in claim 1 and a "merge" operation that is similar in scope to the "assembling" step of claim 1 in that it recites a "media stream" that is created from the recited "screen captures." Independent claim 17 recites a computer-readable medium storing operations including "generating a temporal sequence" and "assembling" a media stream similar to the "generating" and "assembling" operations recited in claim 1. Petitioner's challenge to claims 12 and 17 relies on the reasoning from the challenge to claim 1. *See, e.g.*, Pet. 34 ("For the same reasons as in Element 1d, Avellan discloses Element 12f."), 37 ("For the same reasons as in Elements 1a through 1f, Avellan discloses Elements 17a through 17f, respectively.").

All other challenged claims require the "generating" and "assembling" operations because they depend from claims 1, 12, or 17. Petitioner does not allege that the additional references—Durante, Ma, Suzuki, Wanamaker, Heikens, Matthews, or Wilsher—teach or suggest the "temporal sequence of screen captures" recited in claim 1. Rather, Petitioner's reasoning in the challenges to the dependent claims pertaining to the screen captures mirror the rationale presented in the independent claim. *See, e.g.*, Pet. 25 (arguing that Avellan's screen captures correspond to the video content in the challenge to claim 2), 26–27 (arguing that Avellan obtains screen captures from a playback of a video on the webpage in the challenge to claim 4). Petitioner's argument that Avellan teaches or suggests these operations in the grounds based on obviousness under 35 U.S.C. § 103 depend on the reasoning and insufficiently supported characterizations of Avellan in the challenges based on 35 U.S.C. § 102, as discussed above. *See* Pet. 40–60.

Because Petitioner has not shown that Avellan discloses in the grounds based on anticipation under 35 U.S.C. § 102 or teaches or suggests these operations in the grounds based on obviousness under 35 U.S.C. § 103, Petitioner has not met its burden to show that any challenged claim is unpatentable as anticipated by Avellan or obvious over any of the combinations of Avellan and the other cited references.

III. CONCLUSION

Petitioner has not shown that claims 1–21 are unpatentable by a preponderance of the evidence.

Claim(s)	35 U.S.C. §	Refer-ence(s)/Basis	Claims Shown Unpatent-able	Claims Not Shown Un-patentable
1–6, 8, 9, 12–15, 17, 18, 20	102	Avellan		1–6, 8, 9, 12–15, 17, 18, 20
5	103	Avellan, Durante		5
6	103	Avellan, Ma		6
7	103	Avellan, Suzuki		7
10, 11, 21	103	Avellan, Wan-namaker		10, 11, 21
16	103	Avellan, Heikens		16
19	103	Avellan, Mat-thews		19
20	103	Avellan, Wilsher		20
20	103	Avellan		20
Overall Outcome				1–21

IV. ORDER

It is

ORDERED that Petitioner has not proved by a preponderance of the evidence that claims 1–21 of the '074 patent are unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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