

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

STINGRAY INC.,
Petitioner

v.

EDWIN A. HERNANDEZ-MONDRAGON,
Patent Owner

Case IPR2025-00350
Patent No. 10,524.002

PATENT OWNER RESPONSE

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18	<i>Harmonic Inc. v. Avid Tech., Inc.</i> , 815 F.3d 1356, 1363 (Fed. Cir. 2016)

I. INTRODUCTION

The Petition in this proceeding rests on a fundamentally flawed and improper foundation. The expert declaration upon which Petitioner relies is not the product of an independent analysis of the cited prior art. Rather, deposition testimony has confirmed that Petitioner provided its expert with a draft of Petitioner's own IPR petition before the expert prepared his declaration. That expert then selectively adopted Petitioner's positions on multiple claim sub-elements—without conducting a full and independent assessment of the references—and presented those positions as his own opinions. The expert did not disclose in his declaration that he had relied on the Petitioner's petition yet testified under oath that he was tasked only with addressing certain sub-elements and that his declaration incorporated Petitioner's pre-packaged analysis (EX2102, 116:23-25, 117:1-8, 120:16-25, 121:1-11). In fact, Petition, Paper23 cites Ex1002¶111

These revelations are not minor defects. They go to the integrity of the very basis for institution. The Board's institution decision rests on a declaration that purports to provide an independent expert assessment of the cited U.S. patent references and alleged combinations. However, that declaration is derivative of Petitioner's attorney argument, not objective expert analysis. The expert confirmed in deposition that he did not independently analyze several key sub-elements of the primary U.S. patent references but instead relied on Petitioner's framing. Worse,

after conferring with counsel between the first and second day of deposition, the expert materially altered prior sworn testimony, further undermining his credibility and the reliability of his declaration.

The law requires more. Expert testimony in an IPR must reflect the expert's own considered analysis, not a parroting of petitioner's arguments. When the linchpin of Petitioner's case is revealed to be a declaration crafted in reliance on Petitioner's petition itself, the entire proceeding is tainted. Institution here was fundamentally based on evidence that cannot be credited. Thus, Petitioner's expert testimony is entitled to little or no weight. See e.g., *Broadcom Ltd. v. Invensas Corp.*, IPR2017-00424, paper no. 7, pp. 13, 17 (July 3, 1017) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight."); see also, Fed. R. Evid. 702(b).

Accordingly, Patent Owner respectfully submits that the Board should give no weight to Petitioner's expert declaration and should confirm the patentability of all challenged claims.

II. BACKGROUND

A. THE '002 PATENT

The '002 Patent, entitled "Method, System, and Apparatus for Multimedia Content Delivery to Cable TV and Sattelite Operators," relates to a technology that can securely connect to a cloud-based platform (e.g. OpenStack, Amazon EC2,

Mediamplify Cloud, etc.), retrieve user interfaces using a web-service, create multimedia files from those interfaces (e.g. MPEG4 movies) while storing other multimedia files into a secured repository (e.g. Secured File System, Linux/Windows, etc.). The created multimedia files are then broadcasted to a channel according to certain rules while reproducing those signals via a multicast or unicast video stream (e.g. User Datagram Protocol (UDP) multicast, etc.) encapsulated in a Transport Stream (TS) '002 Patent at 1:23-31.

The patent describes that while “obtaining the content can include retrieving at least one audio file corresponding to an audio component of the multimedia item and retrieving a plurality of images as screen captures that can correspond to video component of the multimedia item. Generating the multimedia files in the second format can include combining the plurality of images and the at least one audio file to create each of the multimedia items.” At '002 Patent 2:65-7 and 3:1-4

Therefore, the '002 patent describes a novel way of:

- a) Retrieving content, e.g. an audio file or multimedia item,
- b) Retrieving, separately, a Custom User Interface (defined in a web page) that are rendered into a plurality of screen captures.
- c) Creating new multimedia assets, e.g. Transport Streams, that are then,
- d) Broadcasted to a multicast channel

The '002 Patent (which claims priority to December 21, 2014) describes a method to methods of broadcasting that includes rendering of such web pages. The patent describes these web pages as a "Custom UI" or "Custom User Interface" that is stored at a URL ('002, at 5:54-60). This custom UI can be configured in a per channel-basis or for all channels that are being broadcasted('002 at 5:59-61).

In other words, a web page containing a "Customer UI" is rendered separate from a multimedia file (e.g. audio) and the webpage is rendered separately. The result in the "Custom UI" can be such that the contents overlap or replacement certain content begin broadcasted to a channel, as the '002 patent says that "a custom UI can be rendered to overlap or replace the video feed file (See '002 at 7:5-10).

The '002 patent then describes the following elements:

- a) A request for a multimedia items such as audio/video (See '002 at 7:49-54), for example audio can be an MP3 file (See '002 at 7:61), or video file obtained from the cloud (See '002 at 7:61-62)
- b) A web page that contains a custom UI that is rendered also as a separate video component, and captured as shown in FIG 5. (See '002 at 7:63-67).

As shown in in FIG 5, the custom UI or web page is rendered as a sequence of screen captures (See '002 at 34-44). By splitting the rendering of the web pages and processing each multimedia item separately, the user interface can be changed and different multimedia items can be associated with the "Custom UI"

As a consequence, monitoring of the generation of what multimedia “Custom UI” is generated to determine what song or multimedia item is being processed (See ‘002 at 20-26).

As depicted in FIG 5, a custom UI or web page at Element 518 retrieves a sequence of screens aptured from the Custom UI, up to a set sequence of screens. E.g. MAX.

Next, FIG 5 at Element 550 shows how the output of the screen captures is saved and multiplexed to an associated multimedia item stored in to the caching server (See 7:35-40).

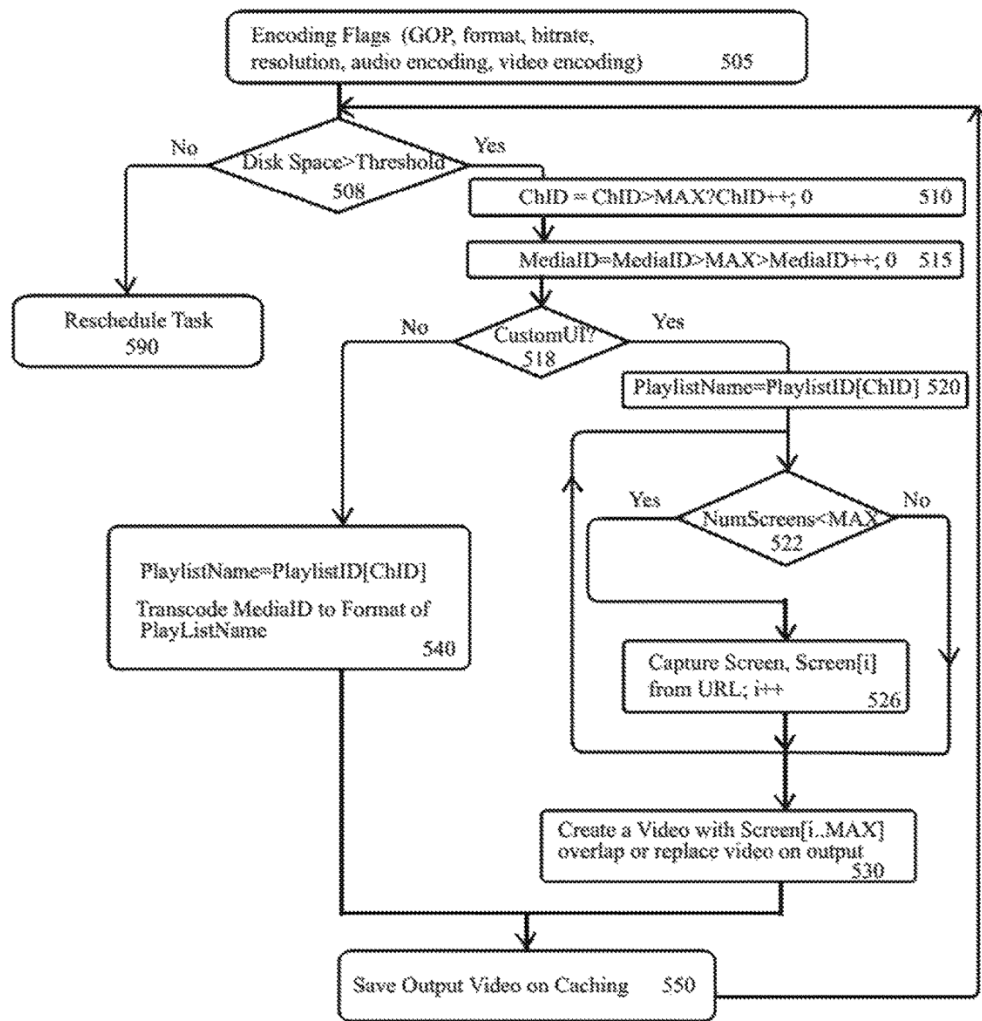


FIG. 5

Therefore, the '002 Patent solved the problem of rendering web pages, as Uster Interfaces, that can overlapped a videos in its native format. There is no need to use any “plugins” such as “Adobe Flash,” and render the multimedia with the user interface simultaneously.

In fact, in many cases “Adobe Flash” and other web plugins would require to render a “video” file only after pressing “Play” on the screen, and possibly clicking over a “full view” button that is part of the player..

The ‘002 provides a method to use the web page just as a user interface and, add or change multimedia, separate from the web page, eliminating the need of “Embedded objects” or browser rendering of multimedia.

B. THE ART CITED AND RELIED ON BY PETITIONER

1. U.S. Pat. 8,954,600 (“Avellan”)

Avellan describes the use of a Gateway server that uses an unknown video protocol called “Web to HD Video Protocol” (See EX2039¶71, ¶¶105-108) that purportedly, convets web pages into “compressed images.” Avellan suggest that a web site is requested from a user computer, where a Gateway intercepts the request, and makes a new request to the website on behalf of the user’s computer. The request I is done using standard HTTP by the gateway browser to awebsite. The Web to HD Video Protocol is used to collect images from the website and send responses to the user’s request. The user client is a satellite client that wants to see a web page over a slow link. Hence, the client submits a “URL” to an HTTP Gateway that then makes a new request containing the URL and proceeds to generate a “compressed video and TAG files” derived from the HTML retrieved from the URL.

The resulting “compressed video format” is associated with a “tag file” EX2039¶77 with all positions on the screen where selectable HTML items are located. The files are stored in a “Cache” system and then delivered to the end user’s computer where the files are decompressed for display.

Avellan claims that devices at restricted bandwidth links can leverage the gateway server to render the web page, that usually require multiple HTTP Requests EX2039¶94.c. Avellan claims to be able to render pages from CNN.com, Google.com, Yahoo.com, Youtube.com, other Cloud Collaboration Solutions, etc (See Ex 1003, FIG 1) .

Therefore, in Avellan, there is a “virtual” browser at 106 and very high-speed connection server 135 to resolve and render pages, images, and documents from networks 150, 152. EX1003, 4:62-64, and Lipoff at ¶85 at Pg. 28

A User in Avellan still needs to type in a domain via keypad and send mouse clicks, including pressing ENTER key (EX1003 6:30) for start processing.

Hence, Avellan operates on files as a “compressed video file” has an associated “Tag File” (EX1003 5:44) that is used by to determine mouse moves and clicks at positions of the scroll bar click and other action points from the web page (See ‘600 at 43-46). Therefore,

- 1) Avellan teaches that a “remote browser” receives “clicks” *Id.* 6:33-36 from the client, based on the “Tag file.” In Avellan, a “click” *Id.* 6:31

event is sent from the client to the “virtual browser 106” to the Gateway Brower (See *Id.* at 6:55-60)

2) Avellan also teaches that:

“The tag file is preferably transmitted to the user computer 104 with the compressed video data, so that the information is synchronized.” See Ex1003,13:55-57.

In summary, Avellan teaches:

- Avellan can obtain a “screen capture” from a web page and image Ex-1003,6:52-54
- Compressed video files are associated with tag files, Ex-2101¶108, 112
- Websites are stored in “Compressed video format” in the “Cache” Ex-1003,8:50-54
- Avellan images web pages using a “Web to HD Video Protocol” to which there is no documentation EX2039¶¶105-108
- Avellan can only retrieve a “Live Stream” if is part of a website or webpage EX2039¶¶71, 97, 114.c

2. US Patent 8,819,043 (“Durante”)

Durante is also very generic, and relates to to the playback of music videos and discloses the use of metadata for the song title and artist name based on a video library.

3. U.S. Pat 9,635,075 (“Ma”)

Ma is also very generic, and “relates to the broadcast media services and the use of identifiers to identify channel content”

4. U.S. Patent 6,463,445 (“Suzuki”)

Suzuki is very generic, and is used to request to a content recipient what type of transcoding is in use. Suzuki uses a “state machine” for media transcoding and requesting of format from a client receiving a file. Suzuki discloses an “alphanumeric keypad” mechanism to

5. U.S. Patent Application 2004/0031052 (“Wannamaker”)

Wannamaker is a patent application where the “Rendered” uses HTML Server Transcoding to a proprietary format, CPML/MML with FMB images. Wannamaker uses a MediaCast system together with an MMS (Multimedia Streaming) server that depends on a Motorola OC1000 module for encoding content in analog form or RF (Radio Frequency) for Cable TV (CATV) systems.

6. U.S. Patent 7,778,279 (“Heikens”)

Heikens is a generic and disclose the use of a “Broadcast” channel with IP Address 255.255.255.255.

7. U.S. Patent 9,264,750 (“Matthews”)

Mathews provides a mechanism of ad insertion in HTTL Live Streaming systems using the index file, including an index file server, that can generate index files per location.

8. U.S. Patent 9,240,966 (“Wilsher”)

Wilsher is a system that ensures seamless delivery by dynamically adjusting resource allocation based on network conditions and user demand..

III. THE LEVEL OF ORDINARY SKILL IN THE ART

A POSITA with respect to the ‘002 Patent would have education, experience, and training commensurate with a person with a bachelor’s degree in electrical engineering or computer science, and would have knowledge of remote desktop protocols, access controls, networking protocols, and communications, including TCP/IP-based standards, software design, distributed systems, and network equipment configuration. Based on my experience, education, and training, I have an understanding and knowledge of these capabilities and have been involved with these technologies myself.

IV. CLAIM CONSTRUCTION

Claims in a IPR review are construed using the same claim construction standard as in a civil action. 37 C.F.R. § 42.100(b). Under this standard, claims terms are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art (“POSITA”) at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc). The POSITA is deemed to read the claim term in the context of the entire patent, including the specification and prosecution history. *Id.* at 1313-1316. Courts depart from the plain and ordinary meaning in only two instances: (1) when a patentee acts as its own lexicographer, and (2) when the patentee disavows the full scope of the claim term in the specification or during prosecution. *Hill-Rom Servs. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014).

Petitioner’s statement that all of the claim terms should be construed “any plausible construction” a POSITA in view of the specification (Petition at 15), without specifying what constitutes whether plain an ordinary meaning of any term, is in use.

V. PETITIONER HAS BURDEN OF PROOF

“In an [inter partes review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016). “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 v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1379 (Fed. Cir. 2015).

VI. GROUND 1: PETITIONER PROPOSED GROUNDS BASED ON AVELLAN FAILS TO TEACH, SUGGEST, OR DISCLOSE AT LEAST ALL THE CLAIM ELEMENTS OF ‘002 CLAIMS

A. Independent Claim 1

The ‘002 separates different steps as “obtaining” and “web page rendering” EX2039¶¶72, 27-28. As shown by Dr. Hernandez, it is not obvious that by separating “obtaining a plurality of multimedia items” from “rendering of a web page,” any imaged web page can be overlap or replace a video, and is a desired feature for a “one media stream.” EX2039¶¶28,44,71 Avellan also highlights the use of an obscure reference “Web to HD Video Protocol” EX2039¶¶71, 78, 105-106 that for the analysis of the claims simply was understood as a “way to convert HTML to an image or a compressed file.”

In summary, Avellan can only display items that were imaged from a web page whereas the ‘002 patented claims offer more combinations than just a web page.

1. Avellan does not teach or suggest Element [1a]

a. Element 1a “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;

First, the term “content provider” is used by the ‘002 patent at 2:53-56 as a “cable or satellite operator” (See *Id.* 2:65-67 and 8:17-19) and can be a recipient of a “media stream.” EX2039¶¶101-8102. Petitioner treats web pages as media streams, which is clearly incorrect, as this method is constrained to show only to media visually appearing on the webpage..

Second, the method receives a request from at least “one media stream e.g. Rock Channel. A “media stream: is not a “web page.” Petition, Avellan retrieves web pages as CNN.com, Youtube.com. Lipoff in fact at ¶¶73-75, does not ever points to where the “content provider” is located.

Third, Petitioner at Pg. 18 cites “content provider” as either the “user computers” at 104 that generate a “request”, but also petitioner points to “**the gateway server 134 retrieves the information desired by the user**” as the content provider, throughout different claims petitioner either points to the remote computer or the gateway server as the “content provider”

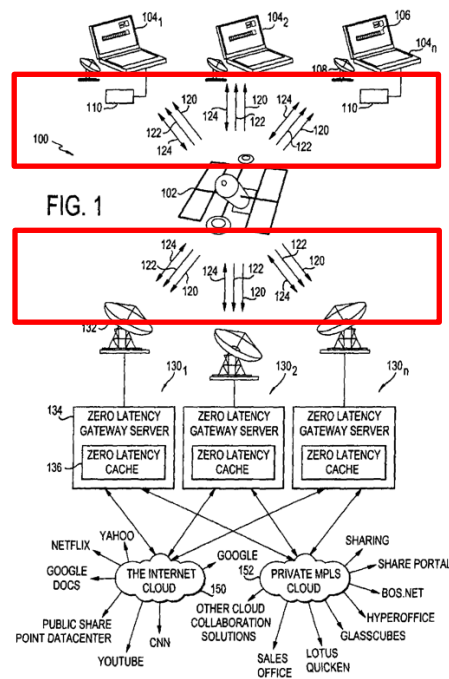
Avellan teaches at least three communication channels between the user and the gateway server, and a bidirectional channel to issue a request that is forwarded by the “gateway server” or the “gateway platform”¹

1,600 B2

4

any one or more of the user computers 104₁-104_n, via a forward channel on one of the unidirectional links 120, 122 or the bi-directional link 124 between the gateway platform 130₁-130_n and the satellite 102; and then continuing over a forward channel on one of the unidirectional links 120, 122 or the bi-directional link 124 between the satellite 102 and the user computers 104₁-104_n. And, each computer 104₁-104_n can communicate information to any one or more of the gateway platforms 130₁-130_n through a return channel on the bi-directional link 124 between the user computers 104₁-104_n and the satellite 102, and then continuing over the bi-directional link 124 between the satellite 102 and the gateway platform 130₁-130_n.

‘600 at 4:1-13



‘600 at FIG 1

Fourth, Petitioner at Pg. 19 says that the “one media stream” is a result of a request made via HTTP Request to any web page containing “video” or “audio” “[t]he gateway server 134 then images those web pages (which are typically in an

¹ In Avellan, the communication between 102 and 130 includes:

- A Bidirectional link, called TAG Communications Protocol – Element 124,
- Elements 122 and 120 or unidirectional links.

In Avellan, a standard HTTP protocol following RFC2816

- Between 130 and 150

HTTP format) to a video or image frame format,” and the presence of “broadcast channels” there can be a number of broadcast channels and each channel can have a specific theme, such as country music, military television, etc.” EX1003 at 8:25-27.

Petitioner fails to to show a one media stream, as a web pages requested via HTTP Format, are not media streams.

Fifth, Petitioner is silent on what in Avellan teaches regarding a “the plurality of multimedia items,”

Sixth, Petitioner also points to a “suitable for a broadcast channel” and uses a conclusory argument that media website such as: CNN, BBC, ESPN are then “media streams” or a “plurality of multimedia items.

2. Avellan does not teach or suggest Element [1b]

a. Element 1b “obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format”

First, Petitioner fails to show Element 1-b. as it fails to show any request made in Avellan that relates to “obtaining content corresponding to the plurality of multimedia items.” Instead, the Petition at Pg. 20 simply states “*As shown in Figure 1, the networks 150 and 152 provide a range of content from **multimedia websites** like CNN, Netflix and YouTube (see blue arrow), (emphasis added).*”

By adding the term “**multimedia website**,” petitioner mischaracterizes the reference, to as it adds the word “**multimedia**” when Avellan references elements

150, 152 defines them as just “web sites” In fact, *Id.* at 5:18 uses the word “multimedia web page” in reference to the “Web-to-HD” video protocol, *only*.

The Petition uses terms as “multimedia websites” to match the term “plurality of multimedia items,” this is improper. Ex2039¶¶98-99

Second, the statement made by Petition, 20 fails to show “obtaining a plurality of multimedia items” as it shows multiple websites from CNN, Google Cloud, Netflix, Google Docs, and Yahoo. All those examples, web pages on websites, and there is no evidence of a **a plurality of multimedia** items, as this requires a separate request EX2039¶98.

Third, Petition, Pg. 21 states that “*Avellan teaches that content corresponding to the plurality of multimedia items is obtained from at least one source, including networks 150 and 152 and/or cache 136, and that content will be in a first format,*” this statement lacks foundation, as it points to the web page capturing process.

3. Avellan does not teach or suggest Element 1[c]

a. Element 1[c] - rendering a web page by a browser using the content;

First, Petition at Pg. 21 indicates that the “gateway server” and the “browser software” that resides at gateway server 134 is the browser of Element 1[c]. As the “Web to HD Video Protocol” EX2039¶115-118 is the one that renders the page, it is highly questionable if “the content from the plurality of multimedia items” is used by such protocol

Second, the ‘002 patent shows teaches how rendering works in detail,
EX2039¶109

4. Avellan does not teach or suggest Element 1[d].

a. Element 1[d] - 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;

First, if it is assumed that “Web to HD Video Protocol” EX2039¶¶115-118 renders a web page and captures screens, both, the ‘002 patent and Avellan generate a temporal sequence of screen capture of a rendered web page.

Second, as such “video protocol” exist, at best “compressed video files” not media streams that are associated to “tag files” Ex2039¶¶92

Third, Most importantly that a circular rationale is done by making media streams equal to web pages. EX2039¶¶111.

5. Avellan does not teach or suggest Element 1[e]

a. Element 1[e] - assembling the at least one media stream using the temporal sequence of screen captures; and

First, Petitioner, 24 points to the “compress the data into a compressed digital video format” ,.. “once the webpage is imaged (including the audio...” as cited from Ex-1003 at 5:12-5:15 and 5:20-22. Petitioner fails to show Element 1[e]

Second, Assembling the “at least *one media stream* using the temporal sequence of screen captures,” requires a media stream that is

Therefore, Petitioner, 24 fails to show that a “one media stream is assembled” as compressing a video file does not fulfill the assembling part of Element 1[e] nor constitutes a “media stream” EX2039¶¶109

6. Avellan does not teach or suggest Element 1[f]

a. Element 1[f] providing the at least one media stream to the content provider for broadcast on the broadcast media channel.

First, Petition, 24, states that the “once the page is imaged (including any audio on the webpage the gateway server 134 compresses the image or video frame format and sends it to the browser 106 via the satellite 102” EX1003 at 5:12-5:15. is sufficient to “providing at least one media stream to the content provider” and also “Broadcast Media Channel” to “suitable sites for the broadcast mode are news sites like CNN, BBC, newspaper, live streaming television feeds, movies, music downloads, or ESPN.” EX1003 at 8:18-21

Second, This is a circular reference as the content provider is the same as the gateway platform is the one that generates the “once the page is imaged” occurs in the gateway platform. As shown by Id. at 5:16-17“ [o]nee 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.”

Therefore, the petition fails to show Element 1[f] 1) a content provider cannot provide its own content, nor broadcast to its own channel, when the content

provider is expecting a broadcast, 2) Avellan can *not* create a “one media stream” nor provide it EX2039¶114

7. Avellan does not teach or suggest Element 1[g]

a. wherein the at least one media stream corresponds to at least one of an HTTP live stream (HLS), an HTTP playlist, and a Real-time Streaming Transport (RTSP) stream; and

First, in essence, Petitioner logic is that “Web to HD Video Protocol” implements broadcasting, HTTP Live Streaming, RTSP, HTTP Playlist, without presenting a single document showing how it works. EX2039¶115.

Second, “Web to HD Video Protocol” simply can’t use it, as if it did, simply will not “store web pages in a compress video format” (Petition, 30) EX2039¶119. The HTTP Live Streaming is a server-based system with its specification as shown in Ex___ that does not “send audio and video” as Petition, relies on “HLS sends audio and video as a series of small files” EX1007, ¶125. As describe in EX2039¶¶116-118, 120, the MPEG Transport Stream segments, not just random files, are created and managed thru an index file that changes over time. The HTTP protocol definition, and server-based component in combination with an HTTP server, require of a Web Player that supports parsing this index files which in a multimedia playlist are called M3U8. These files rotate over time for live feeds and follow a specific sequence, as defined by the protocol. None of it is disclosed by Avellan.

8. Avellan does not teach or suggest Element 1[h]

a. wherein the web page is rendered in parallel in multiple threads

Petition, 31 argues that by using Java on a web-page does not suggest to render a web page in parallel in multiple threads, as known rendering engines simply do not use Java. It is still to be known even the “Web to HD Video Protocol” uses a rendering engine or any other mechanism to convert HTML pages into compressed images. EX2039¶124

B. Dependent Claims 2-3

Dependent Claim element 2-3 are dependant on independent claim 1. Because Avellan fails to teach or suggest all of the elements of Claim 1, the combination also fails to teach or suggest th elements of claims 2-3

1. Avellan does not teach or suggest Claim 2a.

a. The method according to claim 1, wherein the at least one media stream is interacted with MPEG two way control messages

First, , an MPEG two-way system inserts at a “Program Identifier” a text (e.g. URL or a link) that occupiees a program identifier other than video and audio. The ‘002 Patent at EX1001 *Id.* 11:35-40 shows how the describes at The MPEG packet is extracted from the PID and passed to a browser in the receiving device. Avellan does not teach or show this behavior” EX2039¶¶128-130

Second, Petitioner simply points to POSITA would have understood to that “MPEG” is a compressed digital video format Petition, 32. However, you cannot “leapfrog” from MPEG the standard body to MPEG Transport Stream

encapsulation. Besides, Avellan does not disclose how to process Program Identifies and how to insert packets into the MPEG Transport Stream to handle URLs. Avellan teaches away from doing so, as a POSITA already is processing links via a Browser, then no suggestion can be derived from using “compressed video files” and “images” from a web page to, as none of those are a “media stream” Ex2039¶131

2. Avellan does not teach or suggest Claim 3[a] –

a. The method of claim 2, The method according to claim 1, wherein MPEG messages are sent to a service provider via a unicast address.

For Claim 3, Avellan needs to show that 1) instead of using “compressed images,” use “MPEG messages,” b) Show that a user’s set top box can “listen” to packets and become a “sink” for unicast messages for example receive packets at 192.168.100.100 and Port 1000 and does not either, then. Avellan does not teach or suggest Claim 3[a] EX2039¶134-135

C. Independent Claim 4

1. Avellan does not teach or suggest Claim 4a to 4f

a. 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;

b. obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;

c. rendering a web page by a browser using the content;

d. 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;

e. assembling the at least one media stream using the temporal sequence of screen captures; and

f. providing the at least one media stream to the content provider for broadcast on the broadcast media channel;

Claim 4[a]-4[f] are the same claims as 1[a]-1[f] hence see discussions and analysis made Supra VI.A.1,2,3,4,5 and 6 apply for each of the claims. See EX2039¶¶136-139

2. Avellan does not teach or suggest Claim 4[g]

a. wherein assembling the at least one media stream comprises inserting at least one MPEG packet including metadata corresponding to the multimedia item; and

For MPEG packets, Avellan needs to disclose the use of a media stream, that does not. The media stream include MPEG Packets with metadata as shown at Ex1001 FIG. 9 show how to inserting of MPEG metadata using a “Program Identifier” by modifying the “PMT” or the “Program Management Table”

EX2039¶¶136

3. Avellan does not teach or suggest Claim 5-a

a. The computer-implemented method of claim 4, wherein the at least one media stream is interacted with MPEG two way control messages.

Since this claim depends on Claim 4 and Claim 1, Avellan does not teach this. As shown in FIG 9, the metadata payload of an MPEG two way message or

an MPEG metadata will include a link to a web-site or an specific “URI” or “Uniform Resource Identifier” (e.g. http, ftp, tel, etc). This link allows the “media stream” to interact with MPEG two way control messages, as it contains a URL that the user’s device can decode and passed to the devices’ browser. EX2039¶141

4. Avellan does not teach or suggest Claim 6-a

a. The computer-implemented method of claim 4, wherein MPEG messages are sent to a service provider via a unicast address

Petition, 36 shows that the same reasoning for Claim 3, hence the same reasoning in Supra VI.C.1 is true here EX2039¶140

D. Independent Claim 13

1. Avellan does not teach or suggest Claim 13a-g

- a. 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;**
- b. obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;**
- c. rendering a web page by a browser using the content;**

- d. 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;**
- e. assembling the at least one media stream using the temporal sequence of screen captures; and**
- f. providing the at least one media stream to the content provider for broadcast on the broadcast media channel;**
- g. wherein the at least one media stream corresponds to at least one of an HTTP live stream (HLS), an HTTP playlist, and a Real-time Streaming Transport (RTSP) stream; and**

As Petition, 37 relies on the reasons for 1-pre to 1g, the same analysis is used here for Supra VI.A.1

As Petition, 37 relies on the reasons for 1-pre to 1g, the same analysis is used here for Supra VI.A.1

2. Avellan does not teach or suggest Element 13h

- a. wherein the web page is rendered in parallel in virtual instances or virtual machines**

As shown, Petition points to the “recapture feature” in Avellan, however as Avellan does not hold a “plurality of multimedia items” separate from the web page. This limitation is not met. Nor Ma, or Fain, bring any additional knowledge to Petitioner’s claims.

Petition, 40 states that “Java Virtual Machine” is referenced by Avellan. This is not correct, Avellan cite the use of Java as part of a web page, hence “includes html, **java**, flash,” EX2039¶64 includes a reference on how web page in 2010 included flash objects, which is the same forma to use for java applets. The use of Java Applets on web pages was common and known. However, the user of virtual instances and virtual machines for rendering a web page is not disclosed by Avellan. Besides, there is no disclosure by Avellan how this process is done, or even if rendering occurs with the “Web to HD Video Protocol” See also Ex2039¶¶105-1508

VII. GROUND 2: PETITIONER PROPOSED GROUNDS BASED ON AVELLAN, MA, AND FAIN FAILS TO TEACH, SUGGEST, OR DISCLOSE AT LEAST ALL THE CLAIM ELEMENTS OF ‘002 CLAIMS

A. Independent Claim 1

The analisis at Supra VI.A applies herein. Ma is a new disclosure with an HLS-based media streams for ad-insertion. In the discussion made by Petition, 41 uses the wrong verbs to describe HLS, for example “HLS.. that transmit video via HTTP” such stament is incorrect EX2039¶¶117. Besides, HLS or HTTP live

streaming needs a “Web Video Player” to play that content in the majority of web pages EX2039¶¶120

The combination with Avellan creates two competing technologies a) compressed image from a web page that contains a live stream (e.g. HLS) versus b) using the live stream directly. As the result is obviously inferior, as for example, the gateway server in Avellan uses 1Gbps link, as Avellan suggest, then the Adaptive bit rate for Ma, would return a 4K movie, and if the satellite link is 128Kbps, then Avellan not only has to monitor the bit-rate from the user computer but also, change the browser to “emulate” the bandwidth and bit-rate, and resolution to create an image. Such combination, requires undue experimentation and no motivation to combine. EX2039¶¶156-157.

Hence, as obtaining screen shots in low-quality and given bandwidth adaptation difficulties, Avellan cannot be combined with Ma or HLS.

1. Avellan in view of Ma, and Fain, does not teach or suggest Element [1a]

a. Element 1a “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;

b. Element 1b “obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format”

c. Element 1[c] - rendering a web page by a browser using the content;

d. Element 1[d] - 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;

e. Element 1[e] - assembling the at least one media stream using the temporal sequence of screen captures; and

f. Element 1[f] providing the at least one media stream to the content provider for broadcast on the broadcast media channel.

g. Element 1[g] wherein the at least one media stream corresponds to at least one of an HTTP live stream (HLS), an HTTP playlist, and a Real-time Streaming Transport (RTSP) stream; and

First, as shown in the introduction for claim 1, applies for Element 1[g] , such that the motivation to combine a) produces a worse outcome and b) undue experimentation, and as shown to handle a web request,

Second, “Web to HD Video Protocol” simply will have to be merged or combined with The HTTP Live Streaming is as HLS Protocol is well defined by an (and Web to HD Video Protocol is not, such motivation to combine is not possible and anticipates Element 1[g]. EX2039¶¶156-157

2. Avellan in view of Ma, and Fain does not teach or suggest Element 1[h]

a. wherein the web page is rendered in parallel in multiple threads

The petitioner adds the Fain book reference, but the reasoning is the same as in Supra VI.A.7. as Java is not being used by the Gateway server but only, on Java Applets.

B. Dependent Claims 2-3

Dependent Claim element 2-3 are dependant on independent claim 1. Because Avellan fails to teach or suggest all of the elements of Claim 1, the combination also fails to teach or suggest th elements of claims 2-3

1. Avellan in view of Ma and Fain does not teach or suggest Claim 2a.

a. The method according to claim 1, wherein the at least one media stream is interacted with MPEG two way control messages

First, , an MPEG two-way system in Petition, 44 is incorrect. As M3U8 and HLS provide as part of the specification, how to inser ID3 tags, and advertisement “start and end” into segments. Text-based tags such as Ext-X-MEDIA:ID3 that are part of the manifest or the M3U8 file are not MPEG two way control messages. EX2039¶¶169-170 (See Ad Insertion and ID3 Tags examples using HTTP Live Streaming protocol specification)

Second, Petitioner fails to show how Ma, creates an modifies Program Identifiers and MPEG’s Program Managemeent tables as Ex1001 teaches. EX2039¶¶138

2. Avellan in view of Ma and Fain does not teach or suggest Claim 3[a] –

a. The method of claim 2, The method according to claim 1, wherein MPEG messages are sent to a service provider via a unicast address.

For Claim 3, a “sink” for unicast messages for example receive packets at 192.168.100.100 and Port 1000 and does not either, then. Avellan does not teach or suggest Claim 3[a] EX2039¶¶132-135 Ma’s argument at Petition, 47 that “the *live recorder* 202 is responsible for attaching to the live feed using various protocols...” (emphasis added) Hence, Petitioner misinterpret the claim, as the claim “sends” to the service provider, does not “attaches” as a “live record” does.

C. Independent Claim 4

1. Avellan in view of Ma and Fain does not teach or suggest Claim 4a to 4f

a. 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;

b. obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;

- c. rendering a web page by a browser using the content;**
- d. 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;**
- e. assembling the at least one media stream using the temporal sequence of screen captures; and**
- f. providing the at least one media stream to the content provider for broadcast on the broadcast media channel;**

Claim 4[a]-4[f] are the same claims as 1[a]-1[f] hence see discussions and analysis made Supra VI.A.1,2,3,4,5 and 6 apply for each of the claims. See EX2039¶¶136

2. Avellan in view of Ma and Fain does not teach or suggest Claim 4[g]

- a. wherein assembling the at least one media stream comprises inserting at least one MPEG packet including metadata corresponding to the multimedia item; and**

For MPEG packets, Avellan needs to disclose the use of a media stream, that does not. The media stream include MPEG Packets with metadata as shown at

EX1001 FIG. 9 show how to inserting of MPEG metadata using a “Program Identifier” by modifying the “PMT” or the “Program Management Table”

EX2039¶¶129-130.

All the evidence presented by Petition, 47 and 48, as the ID3 tags, and the metadata pointed by petitioner resides in the manifest or the index file of the M3U8 file and does not modify or suggest to a POSITA that such modification has to be done at the packet level, which requires understanding and knowledge of Program Identifiers, Program Management Tables, Timing Structures, among many other MPEG Transport stream concepts that are not even suggested by Ma.

3. Avellan in view of Ma and Fain does not teach or suggest Claim 4h

As petition points to Element 1h, the same analysis applies here.

4. Avellan in view of Ma and Fain does not teach or suggest Claim 5-a

a. The computer-implemented method of claim 4, wherein the at least one media stream is interacted with MPEG two way control messages. .

5. Avellan does not teach or suggest Claim 6-a

a. The computer-implemented method of claim 4, wherein MPEG messages are sent to a service provider via a unicast address

As Petition, 48 points to Claims 4h, 5, and 6 use the rational for 1[h], Claim 2, and 3, the same analysis is used herein

D. Independent Claim 13

1. Avellan in view of Ma and Fain does not teach or suggest Claim 13a-h

- a. 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;**
- b. obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;**
- c. rendering a web page by a browser using the content;**
- d. 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;**
- e. assembling the at least one media stream using the temporal sequence of screen captures; and**

f. providing the at least one media stream to the content provider for broadcast on the broadcast media channel;

g. wherein the at least one media stream corresponds to at least one of an HTTP live stream (HLS), an HTTP playlist, and a Real-time Streaming Transport (RTSP) stream; and

As Petition, 37 relies on the reasons for 1-pre to 1g, the same analysis is used here for Supra VI.A.1

1. Avellan in view of Ma and Fain does not teaches or suggest Claim 13h

a. wherein the web page is rendered in parallel in virtual instances or virtual machines

As shown, Petition points to the “recapture feature” in Avellan, however as Avellan does not hold a “plurality of multimedia items” separate from the web page. This limitation is not met.

Petition, 40 states that “Java Virtual Machine” is referenced by Avellan. This is not correct, Avellan cite the use of Java as part of a web page, hence “includes html, **java**, flash,” EX2039¶146 includes a reference on how web page in 2010 included flash objects, which is the same forma to use for java applets. The use of Java Applets on web pages was common and known. However, the user of

virtual instances and virtual machines for rendering a web page is not disclosed by Avellan. Besides, there is no disclosure by Avellan how this process is done, or even if rendering occurs with the “Web to HD Video Protocol” Fain is a Java Programming Book adding no more substance to Petitioners arguments.

VIII. GROUND 3: PETITIONER PROPOSED GROUNDS BASED ON WANNAMAKER FAILS TO TEACH, SUGGEST, OR DISCLOSE AT LEAST ALL THE CLAIM ELEMENTS OF ‘002 CLAIMS

A. Independent Claim 7

Wannamaker is a new reference introduced by Petition. Wannaker defines Ex1006 the use of hardware encoders and a “middleware” platform to provide video content to set top boxes using their TV Navigator Platrom. Wannamker uses sever hardware components including the Motorola OC1000 as part of their DSR (Id. and other hardware components as depicted in EX2039¶¶204-208.

Wannamaker uses a concept called “Rendered” as EX1006,258-259 converts HTML to CPML/MML (CPML is Information Platform Markup Language) EX1006,606 and FBM images for the microbrowser. Id.[0490] states that “the server software handles retrieving and *transcoding* HTML content on a set schedule”.

Therefore, petition mischaracterizes and uses the term “MPEG Markup Language”at Petition for IP2025-0349, 51 Paper 1, and Paper 1, such term is

inexistent in Wannamaker, and is attempt to deceive the “transcoding” mechanism described in EX1005.

The main issues with Wannamaker is that it cannot provide a transcoding system and uses MPEG image data with the MML just as HTML uses PNG, GIF and JPEG. Hence, all markup languages (including MML and HTML) are just text files.

1. Wannamaker does not teach or suggest Element 7-a

a. 7a multicast server configured to generate parameters relating to at least one of video content, image content and audio content, and configured to output the parameters via MPEG outputs

Claim 13a requires a “multicast server,” what Wannamaker discloses is the use of an MMS Module that connects to DRM module that uses OM1000 Motorola’s “MPEG-2/Digital Out of Band Modulator.” *First*, non of these constitutes of a “multicas server” *Second*, the OM1000 Motorola can only receive a multicast, and cannot “generate video content” in a multicast stream, only as part of modulation using QPSK (Quadrature Phase Shifting Keying) that work in the RF for the coaxial cable infrastructure. *Thirid*, the manual shows that a keypad command is needed, not a keyboard or a terminal, as a “server” requires.

2. Wannamaker does not teach or suggest Element 7b and 7c

a. 7b - a caching server communicatively coupled to the multicast server, and configured to: 7c. “receive and store the parameters,”

First, the “caching sever” at Petition, 54 is the Wannaaker’s “CP or Content Processor” but at Pettion,55 chances to the”Cache Managers.” Although, the CP

use the “Cache manager, this manager is designed to provide content to a Motorola DCT 200 set-to-box.

Second, Petition points to “crawler and content processor” parameters in relation to the TV Navigator resources fetched.

Thrid, In the context of encoding and processing video in the ‘002 Patent, as Claim 7 is, the parameters are, video and audio encoding parameters such as GoP (Group of Pictures), resolution, bit-rate in Kilobits per seconds, and encoders e.g. H.264 EX2039¶¶216-218

Fourth, Wannmaker does not sugges that the CP handles any encoding, thus, no suggestion that any of this parameters are in the “Caching Server” as in the OC1000, a keypad is used to enter encoding parameters or multicast addresses EX2039¶¶220

3. Wannamaker does not teach or suggest Element 7d

a. create a temporal sequence of screen captures of a rendered web page, where each said screen capture defines content of the rendered web page at a given time, and at least two adjacent screen captures in the temporal sequence illustrate a dynamic change of at least a portion of the video content, image content or audio content over time;

EX1006¶00259 shows that an HTML page is “Rendered” but into a CPML or MML page with FMB files. EX2039¶¶226-234 and EX1006 *Id.* [0660], CPML is an acryonim that means Information Platform Markup Language (CP possibly s the acronym used for Content Processor, hence Content Processor Markup Language), as well as MML, another markup language that is proprietary and

referenced by EX1006 as well as “FMB” which is an image file format (Id. [0259]). Therefore, no images are captured as there is no need to create a “temporal sequence of screens” as simply the TV Navigator operates using CPML, MML, as Laptops use Safari and Chrome with HTML.

4. Wannamaker does not teach or suggest Element 7e

a. assemble the temporal sequence of screen captures, and,

As a consequence of not existing Element 7f, there is no need to “assemble” a media stream with screen captures, as the MPEG packets received by the TV Navigator embedded MML and CPML markup languages, or text files referencing content.

5. Wannamaker does not teach or suggest Element 7f

a. provide at least one of the video content, image content and audio content to the multicast server for generating a multicast stream with MPEG encoded video and audio

As shown for Element 7a (Supra VII.A.1) Wannamaker does not generate multicast streams instead encodes the MPEG packets with an “Out of Band” modulator, Motorola OM1000 or MMS_OM1000, and Wannamaker teaches away from using any multicast streams at all.

6. Wannamaker does not teach or suggest Element 7g

a. a monitoring system configured to maintain generation of video and audio files, even in failure cases

First, Monitoring refers to the system of “generation of video and audio files,” none of this can be disclosed by Wannamaker as the use of OMI or “Open

Management Interface” although refers to “Redundancy” via fail over servers as shown by EX1007 at [0101] to [0103].

Second, The monitoring presented by Element 7[g] refers to maintaining the generation of video and audio files for the Multicast Stream, that is not present in Wannamaker hence cannot be disclosed. Besides, Wannamaker does not disclose the use of a “Software features” that suffer failures, nor any entity that resemble the “Mediamplify Parallel Encoder.”

B. Dependent Claims 8-11

1. Wannamaker does not teach or suggest Claim 8 –

a. The system according to claim 7, further comprising multiple servers for load balancing and fault-tolerance

Wannamaker the use servers for a media stream, instead Petition points to a Motorola OC1000 box that is not a server; EX2039¶¶188-190

2. Wannamaker does not teach or suggest Claim 9 –

a. The system according to claim 7, wherein the multicast server is selected to communicate a multicast stream available for a broadband network.

As expressed in Supra VI.A.a.2, given that Wannamaker MMS’s “Green Arrow” server provides an output to the QAM Upconverter or modulator in “Blue Arrow,” converting from CATV and QAM upconvert to a “broadband network” requires more equipment not presented in Wannamaker. Additionally, FIG4 shows that as output for Wannamaker from the MMS (green arrow) is the RF or CATV

that is labeled as “analog.” Hence, by no means, Wannamaker suggest or teaches using a broadband network (e.g. DSL or MPLS).

3. Wannamaker does not teach or suggest Claim 11 –

a. The system according to claim 7, wherein the system generates audio MPEG files and add metadata in an MPEG frame.

As Claim 7 is not anticipated by Wannamaker, this is not met (See EX2039¶251).

IX. GROUND 4 PETITIONER PROPOSED GROUNDS BASED ON AVELLAN IN VIEW OF WANNAMAKER AND FAIN FAILS TO TEACH, SUGGEST, OR DISCLOSE AT LEAST ALL THE CLAIM ELEMENTS OF ‘002 CLAIMS

For this Ground, a combination of Avellan and Wannamaker needs to be possible, however as shown by EX2039¶¶260-263

A. Dependent Claim 10

This claim is the same as Claim 1, but as a “non-transitory computer readable storage” hence the analysis at Supra V.A.1-6 is appropriate.

1. Wannamaker in view of Avellan Claim 10

a. The system according to claim 7, wherein the video content is encoded in a video streaming format so as to generate a unicast stream

Relying on the explanation on (Supra VI.A.1),

First, The combination of Wannamaker and Avellan is not possible, as Wannamaker uses hardware for example the “MMS OC1000” and the microbrowser’s CPML/MML with FMB images requirements that enter into conflicts with the “compressed images and video files” used by Avellan. In other

words, there two paradigms that collide, “server transcoding” HTML tex to MML text, versus Image capturing from HTML. Certainly, such combination is far from trivial requiring undue experimentation. EX2039¶260

Second, the one media stream is not used by Avellan, and even less a “media stream for playback” as this stream also lacks of the “plurality of multimedia items of different types”

Third, Total obscurity on Avellan’s Web to HD Video Protocol, that colliges with the MediaCAST System and MMS. As shown, OC1000 uses a keypad to configure encoding, IP Address, etc, and not being a software device creates a no motivation to combine.

X. ARGUMENT

A. PETITIONER HAS FAILED TO SATISFY ITS BURDEN UNDER 35 U.S.C. § 314(a)

The petitioner in an IPR bears the burden of proving by a preponderance of evidence that each challenged claim is unpatentable. 35 U.S.C. § 316(e).

Petitioner has failed to meet this burden.

1. The Petition Fails to Show That Avellan Anticipates or Renders Obvious Claims 1-6, 13

Ground 1 of the Petition alleges that claims 1 and 2 are anticipated and/or rendered obvious by Avellan EX1003.

To establish anticipation under § 102, a petitioner must identify each and every element in a claim, arranged as recited in the claim, in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008) (“To anticipate a claim, a single prior art reference must expressly or inherently disclose each claim limitation. . . . But disclosure of each element is not quite enough—this court has long held that anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim”) (emphasis original; internal citation and punctuation omitted).

Claims 1-6, and 13 are both directed to a retrieving multimedia items from a server and rendering, separately a web page, that is assembled to overlaid on top of the multimedia items when video is present or take over the entire TV screen if only audio is present.

Petitioner alleges that Avellan render the ‘002 patent obvious, however,

Claim 1 sub elements contain key words of art, and industry specific terms, which define each sub element, which are not taught, disclosed, or suggested by Avellan. When these claim sub-elements use industry-specific words of art, claim construction seeks to give those terms the meaning they would have had to a POSITA at the time of the invention, informed first and foremost by the patent’s own disclosure, then by industry usage, and only supplemented by extrinsic evidence. Their specific functional role in the claim language ensures the scope is tethered to how the invention actually works.

Element 1a	receiving, from a <u>content provider</u> , a <u>request</u> for at least one <u>media stream</u> for <u>playback</u> on a broadcast media channel, wherein the at least one media stream includes a plurality of multimedia items of different types;
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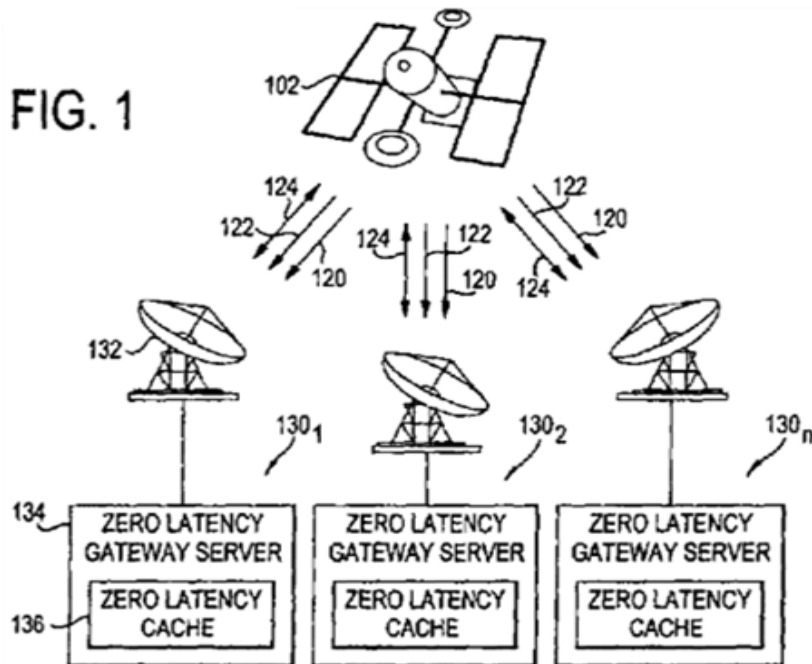
A. Content Provider

The intrinsic record confirms that “content provider” refers to entities such as cable or satellite operators. The specification expressly states: “an example computer-implemented method can receive, from a content provider such as a cable or satellite operator, a request for at least one media stream for playback on a broadcast channel.” EX1001, 2:50. Further, dependent claim 9 limits claim 1 to cases where “the content provider is a cable television operator or a satellite television operator.” EX1001, 15:31-50. Under the doctrine of claim differentiation, dependent claim 9 confirms that “content provider” in independent claim 1 must already carry the ordinary meaning of a source entity responsible for supplying content — consistent with industry usage (W3C, FCC, IEEE). Petitioner’s attempt to re-label a “gateway platform” as a “content provider” is inconsistent with this intrinsic evidence. A gateway is merely a transmission intermediary, not a content source. A gateway platform, as taught by Avellan, is an **intermediary system** that facilitates communication between user computers utilizing information copied from websites. The Avellan gateway platform does not originate content but acts as the distribution intermediary—receiving, processing, and enabling delivery to the computer end users of images of webpages.

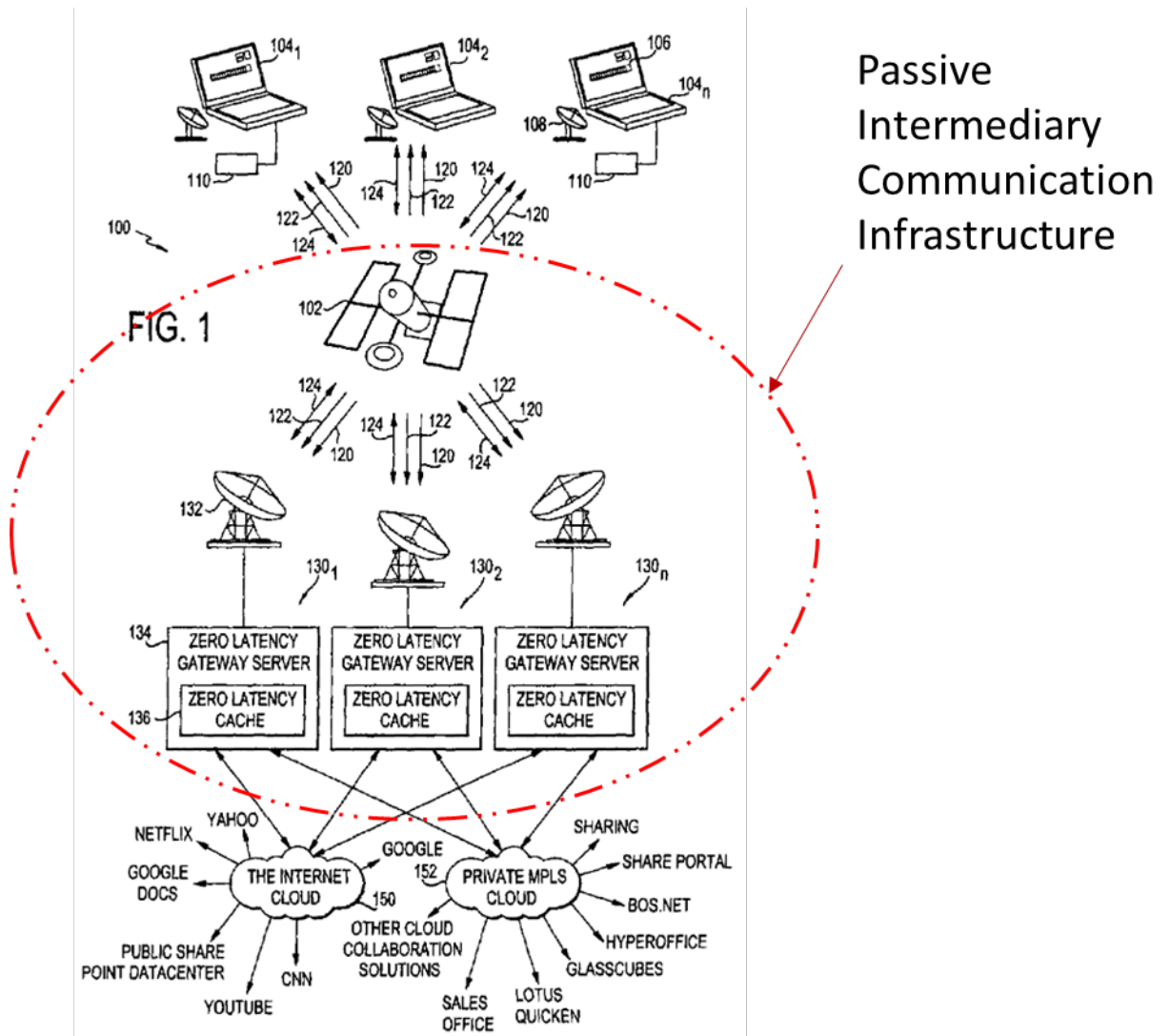
Avellan fails to teach, suggest, or disclose “receiving, from a content provider, a request for at least one media stream for playback . . .” as recited in independent claims 1, 12, and 17 of the ‘002 patent. Any premise that a request comes from a passive, intermediary, communication, pass-through communication infrastructure, such as a broadcast device, is erroneous. A broadcast device **cannot** perform any “request” capability. The broadcast device described in Avellan is merely a passive intermediary in the communication path. It does not itself “request” a media stream, but only transmits a computer user-generated request. As such, it cannot satisfy the active method step of “receiving, from a content provider, a request for at least one media stream . . .” required by the challenged claims. Accordingly, the cited reference fails to disclose the “content provider” limitation.

Further, because of the passive intermediary function of the gateway server, gateway cache, antennas, and satellite in the aggregate, the gateway platform only provides an infrastructure for transmission.

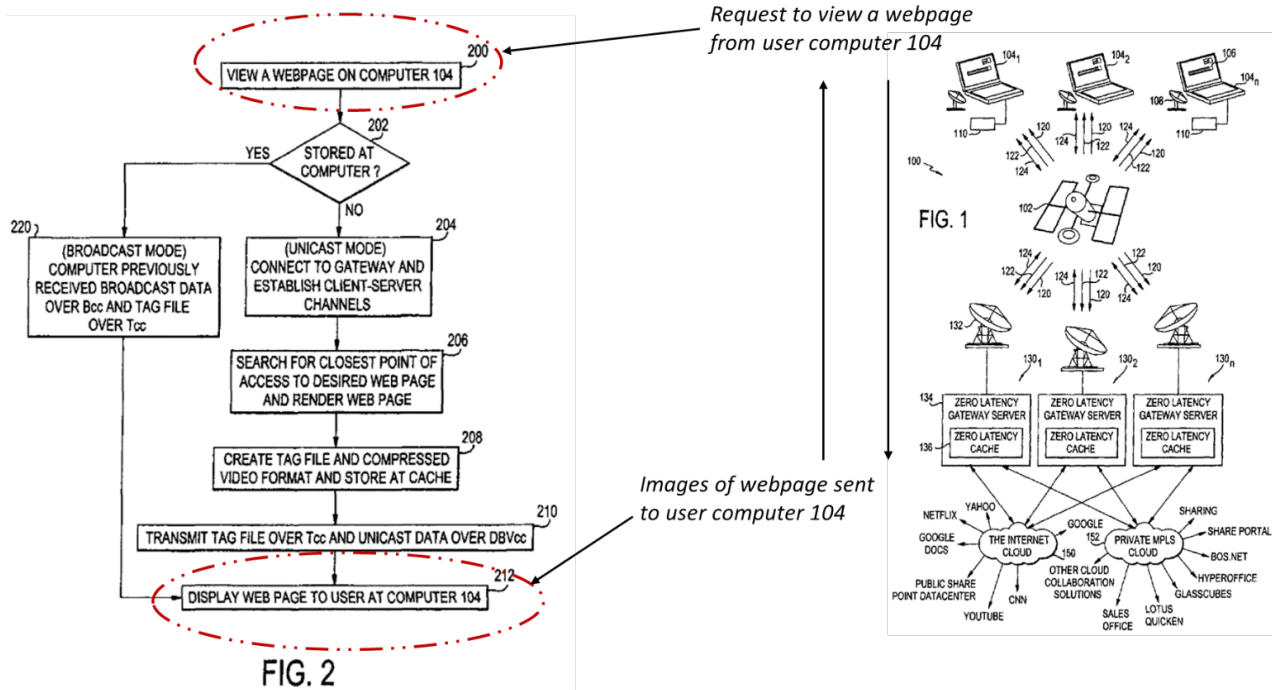
FIG. 1



There is no request from a content provider, there is no action step that begins or ends within the communication infrastructure of Avellan, and in particular, Avellan does not in any way at all teach as the Petitioner and Petitioner's expert allege that the Gateway Platform is a content provider. Avellan does not teach, suggest, or disclose any such interpretation.



further, In Avellan, all requests generate from the user computers.

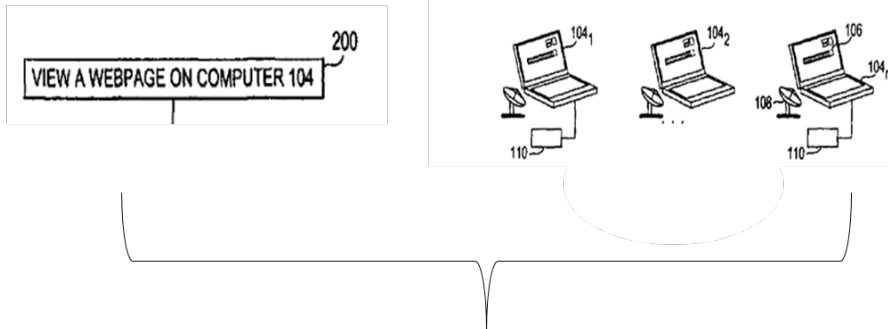


B. Request, Media stream, and Playback

With respect to “receiving from a content provider, a request for at least one media stream for playback”, Avellan fails to teach, suggest, or disclose at least each and every element within the context of the claim language of claim 1.

C. Request

A “request” refers to an active, intentional action taken by a user or a client device to obtain data, services, or content. Further, a request is explicitly initiated by a user, such as, by clicking a play button. Additionally, a request is directed to a remote entity and requires some degree of volition or specific invocation. In Avellan, the only “request” comes from the user computers 104, not from a content provider.



All requests originate from the Avellan user computers 104, there are absolutely no “requests” from any other components, which teach or disclose the limitation “receiving, from a content provider, a request for at least one media stream . . .”

D. Media Stream

A media stream is a continuous, temporally ordered flow of multimedia data transmitted for playback, rather than a static file transfer. Further, playback is the process of outputting stored or streamed multimedia content for user consumption, including retrieving, decoding, and rendering steps. Avellan does not teach, suggest, or disclose at least *receiving from a content provider, a request for at least one media stream for playback*, because Avellan solely teaches imaging a webpage and then transmitting that image to user computers in either unicast or broadcast mode, and in some other cases using a “compressed video file or compressed video format” that is first stored at the Gateway’s cache, as it was a file. There is no playback, whatsoever, because there is no media stream.

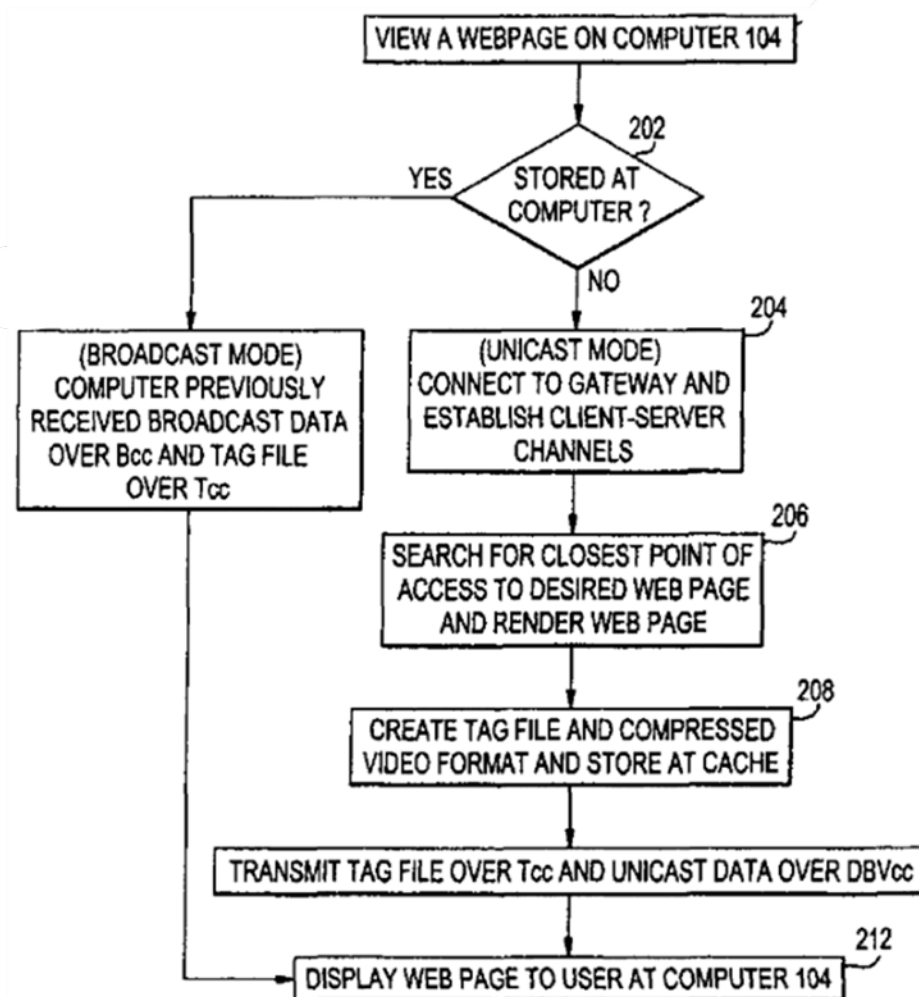
A “media stream” requires time-dependent data, organized as a continuous sequence, and intended for playback. Avellan does not teach, suggest, or disclose at least *receiving from a content provider, a request for at least one media stream for playback*.

Avellan solely teaches to image a webpage, based on a computer user's request, and then Avellan transmits that image to a user computer while in unicast mode, and when in broadcast mode, transmits another image of a webpage if there was a change on the webpage, an updated image that then is displayed on the screen of the computer user.

E. Playback

Avellan fails to teach, suggest, or disclose playback because Avellan is silent with respect to any “playback”. Notably, Avellan's specification does not recite “playback” in any way whatsoever.

Avellan merely discloses transmitting a sequence of images. Such disclosure is fundamentally different from the claimed limitation of “a request for at least one media stream for playback.” A person of ordinary skill in the art would recognize that “playback” requires temporal continuity, synchronization, and decoding of a media stream such that content is presented over time. Transmitting discrete images, even in succession, fails to meet this standard because there is no continuous rendering of a stream. Accordingly, the reference cannot satisfy the “playback” requirement of the challenged claim.



Avellan solely teaches imaging websites, compressing those images, and then broadcasting those compressed images to user computers. A POSITA would not recognize “broadcasting compressed website images” as a “media stream” because they lack time-synchronized playback properties, they are static data objects delivered in bulk, and they do not conform to the well-established technical usage of “media stream” in IETF, MPEG, or W3C standards. In fact, POSITA will not recognize the use of a “Web to HD Video Protocol,” as suggested (Supra VI.A.3) is still unclear how that works.

Accordingly, Petitioner’s reliance on this disclosure to satisfy a “media stream” limitation is misplaced.

Element 1b	obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;
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Avellan merely discloses identifying a list of media items, such as image files and tag files, but does not obtain the underlying media content corresponding to those items. A person of ordinary skill in the art would understand that “obtaining content” requires retrieval of the substantive audio/video data for each multimedia item, not simply referencing or displaying descriptive information. Therefore, the reference fails to disclose the claimed limitation.

Element 1c	rendering a web page by a browser using the content;
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Avellan teaches away from *rendering a web page by a browser using the content*. Avellan is specifically structured to **NOT** RENDER A WEB PAGE BY A BROWSER. Avellan teaches, “the browser software 106 resides at the gateway 134, and is configured to run as a virtual browser as a remote client of the gateway server 134. Because the browser 106 functions as a virtual browser, viruses that attack operating systems and threaten users' security are unable to infest the user's individual computing devices”.

Rendering a webpage by a browser specifically requires a process by which a web browser receives HTML or using a webserver with associated resources like

CSS, JavaScript, images, parses it into a structured representation (e.g., DOM), applies style and layout rules, and ultimately visually displays the resulting content to a user on screen. It is still unclear, whether “Web to HD Video Procol” is using a different device or “protocol” to carry out the conversion of a “web page” to an “image.”

Besides, Avellan only discloses a virtual browser residing on a gateway. A virtual browser on a gateway does render a webpage. The computer user only receives and displays the graphical representation of the rendered page, isolating it from direct exposure to webpage code.

Further, Avellan teaches away from rendering a webpage by a browser because a stated objective of Avellan is to provide protection to the computer user from direct interaction with a website. The virtual browser allows a computer user to receive graphical images of a corresponding website, only.

Element 1e	assembling the at least one media stream using the temporal sequence of screen captures; and
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The limitation “assembling the at least one media stream . . .” requires more than transmitting or displaying individual media items. A person of ordinary skill in the art would understand “assembling” to mean organizing, synchronizing, and packetizing media content into a continuous stream suitable for playback. By contrast, Avellan merely discloses transmitting a series of separate image files, in

some other cases “compressed video files” without any disclosure of assembling those items into a coherent media stream with temporal continuity or synchronization. Assembling, is simply implied in hindsight to the Web to HD Protocol (Supra VI.A.3) Therefore, Avellan fails to meet this limitation.

Element 1f	providing the at least one media stream to the content provider for broadcast on the broadcast media channel.
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Avellan does not disclose “providing the at least one media stream . . .” because it merely stores or identifies image files without delivering or making available a continuous multimedia stream for playback. A POSITA would understand that “providing” requires the stream to be furnished in a form suitable for playback, such as through transmission over a network or supplying it to a client. Transmitting static images or a series of image files alone falls short of this requirement.

Whereas, Avellan shows that a client browser request is rendered by a gateway generating video to be retrieved again by the request made from the client web browser.

Impermissible Hindsight

Petitioner and their expert improperly rely on hindsight reconstruction. The alleged teachings of the cited prior art do not disclose or suggest at least all of the claimed limitations. Instead, Petitioner’s expert identifies the aggregate limitations

only by using the challenged patent as a roadmap, retroactively piecing together disparate elements from the prior art. Prior art must provide some teaching or motivation without reliance on the invention itself. The cited references contain no disclosure of the aggregate claim limitations in total, and the Petition offers no reasoned motivation to combine them apart from the teachings of the challenged patent itself. Accordingly, Petitioner's obviousness theories fails.

Petitioner cites numerous prior art references, including POSITA inherency determinations and motivation arguments, for curing deficiencies of primary prior art, as in Avellan, in challenging patentability of the '002 claims.

Specifically, Petitioner cites secondary prior art that are focused on the claim limitations of the individual dependent claims of the '002 patent.

Because Wannamaker, Avellan, Ma, and Fain, singularly or in combination, fails to teach, suggest, or disclose at least all the elements of the independent claims of '0002 patent, and further, because Wannamaker, Avellan, Ma, and Fain, singularly or in combination, fails for numerous sub element limitations in anticipating or rendering the '002 independent claims unpatentable, the inclusion of other prior art references in challenging dependent '002 claims, are not effective in curing the deficiencies of the primary prior art of Avellan. Accordingly, because the '002 patent independent claims are not rendered obvious by Wannamaker, Avellan, Ma, and Fain, and because Wannamaker, Avellan, Ma, and Fain do not render obvious the '002 claims for numerous sub element limitations, the inclusion

of any number of secondary prior art references will not cure the deficiencies of Wannamaker, Avellan, Ma, and Fain, and therefore no matter how many additional references Petitioner may cite, that do not cure the foundational deficiencies of Wannamaker, Avellan, Ma, and Fain in rendering the '002 independent claims unpatentable, all independent claims and all dependent claims, at least due to their inherencies to the independent claims, of the '002 remain patentable under all cited §102, §103, and POSITA inherency and obviousness challenges and assertions.

Accordingly,

- 1. The Petition Fails to Show That Avellan View of Ma, and Fain renders obvious Claims 1-6, and 13**
- 2. The Petition Fails to Show Wannamaker Anticipates or Renders Obvious Claim 7-9, and 11-12**
- 3. The Petition Fails to Show That Wannamaker and Avellan Renders Obvious Claim 10**

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XI. CONCLUSION

The proposed grounds for contesting the patentability of all claims contained in the Petition fail to all grounds, based on numerous deficiencies. The abovementioned gaps in the proffered evidence and substantive content of both the Petition and the cited documents prove fatal to cited anticipation and obviousness assertions by Petitioner. The request to institute these IPR proceedings was based on fundamentally flawed and improper foundation, and infringement of the due process rights of the patent owner have been raised.

For the reasons set forth above, and based on the intrinsic evidence, the testimony of record, and the failure of Petitioner to establish unpatentability by a preponderance of the evidence, Patent Owner respectfully submits that none of the challenged claims are unpatentable under 35 U.S.C. §§ 102 or 103.

Petitioner has not shown that the cited prior art references anticipate or render obvious the challenged claims, either individually or in combination, nor that a person of ordinary skill in the art would have been motivated to combine them with a reasonable expectation of success. Accordingly, Patent Owner respectfully requests that the Board enter a Final Written Decision confirming the patentability of all challenged claims and denying the relief requested by Petitioner.

DATED: September 12, 2025

Respectfully submitted,

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LIST OF EXHIBITS

Exhibit #	Description
2006	Declaration of Dr. Edwin A. Hernandez
2101	Supplemental Declaration of Dr. Edwin A. Hernandez
2102	Lipoff Deposition September 2th, 2025
2103	Lipoff Deposition September 3rd, 2025

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the word count for the foregoing PATENT OWNER'S RESPONSE in IPR2025- 0350 totals 11,010, as counted by the Word Count feature of Microsoft Word, which is less than the 14,000 allowed under 37 C.F.R. § 42.24(a)(1)(i), excluding the parts of the paper exempted by 37 C.F.R. § 42.24(a), and complies with the typeface requirements of 37 C.F.R. § 42.6(a)(ii) and the style requirements of 37 C.F.R. §§ 42.6(a)(iii) and (iv).

Dated: September 12, 2025

/s/ Robert Drolet
Robert Drolet, P.E.

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document was served electronically via electronic mail on September 12, 2025 on the following counsel of record for Petitioners:

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/s/ Robert Drolet
Robert Drolet, P.E.