UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
CHARTER COMMUNICATIONS, INC.,
Petitioner
V.
SPRINT COMMUNICATIONS COMPANY L.P.,
Patent Owner
Case IPR2019-01138
Patent No. 6,754,907

PATENT OWNER'S PRELIMINARY RESPONSE

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Petitioner Charter Communications, Inc. fails to demonstrate a reasonable likelihood of prevailing on any ground asserted against any challenged claim in its Petition for *Inter Partes* Review of U.S. Patent No. 6,754,907 (the "'4907 patent"). Accordingly, Patent Owner Sprint Communications Company L.P. respectfully requests that the Board deny institution of the Petition.

I. Introduction

Petitioner fails to show a reasonable likelihood of success on any of its three asserted grounds of unpatentability. Each ground relies on the Ellis reference, alone or in combination with another reference: anticipation based on Ellis (Ground 1), obviousness based on Ellis and Browne (Ground 2), and obviousness based on Ellis and Humpleman (Ground 3). Critically, Petitioner does not demonstrate that any of these references teach a video control signal that indicates a first or second communication interface as Element [C] of the '4907 patent claims requires. Moreover, neither Ellis nor any of the other references teaches a *processing system* configured to transfer a control screen signal to a second communication interface configured to transfer that signal to a second communication system, as the '4907 patent claims. Even if Browne or Humpleman disclosed these features, Petitioner does not present sufficient evidence to establish a motivation to combine the prior art references for each of Grounds 2 and 3. Petitioner recites the same generic reasoning for combining Ellis with the other two references instead of providing the requisite why and how a person of ordinary skill in the art would have combined the elements of these references in the way the claimed invention does.

II. Relevant Factual Background

A. The '4907 Patent

The '4907 patent generally relates to a video-on-demand system. (EX1001, 1:7-10.) In an embodiment, the video-on-demand system includes a first communication interface 101 and a second communication interface 102 each communicating with processing system 103 of video-on-demand system 100:

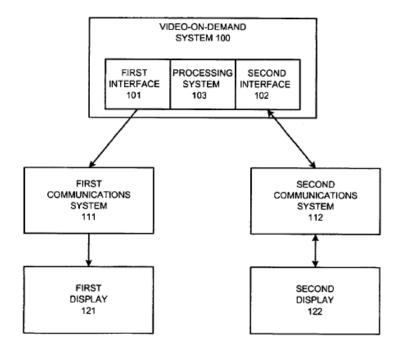


FIG. 1
(EX1001, FIG. 1; see also id. 2:16-19)

The first communication interface is coupled to a first communication system, such as a cable video distribution system, which, in turn, is coupled to a first display, such as a television:

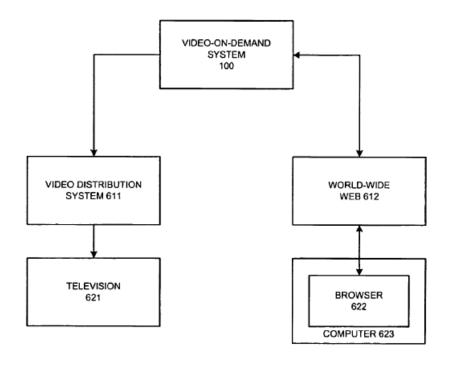


FIG. 6
(EX1001, FIG. 6; see also id. 2:19-22, 2:27-33)

The second communication interface is coupled to a second communication system, such as the Internet, which, in turn, is coupled to a second display, such as a computer with a browser. (EX1001, FIG. 1, 2:22-25, 2:30-34.)

The processing system generates and transfers a control screen signal to the second communication interface. (EX1001, 3:4-10.) The second communication interface transfers the control screen signal to the second communication system and

to the second display, which displays the control screen to the viewer. (EX1001, 3:4-10.) The control screen could be, for example, "a web page that includes a video display control menu comprising play, stop, pause, rewind, and fast forward" or it "could include a video content selection menu." (EX1001, 1:50-55.) The viewer of the second display chooses a selection from the control screen, such as ordering specific video content. (EX1001, 4:5-8.)

The display transfers the corresponding video control signal (which indicates either the first or second communication interface) to the second communication system, the second communication interface, and the processing system. (EX1001, 4:5-12.) The processing system then transfers the selected video content as video signals to the communication interface indicated by the video control signal. (EX1001, 4:23-37.)

B. The '4907 Claims

The '4907 patent has twenty-five claims. Claims 1, 10, and 19 are independent. Claim 1 recites:

- 1. A video-on demand system comprising:
- [A] a first communication interface configured to transfer video content signals to a first communication system;
- [B] a second communication interface configured to transfer the video content signals to a second

communication system, transfer a control screen signal to the second communication system, and receive a video control signal from the second communication system; and

[C] a processing system configured to transfer the control screen signal to the second communication interface, receive the video control signal from the second communication interface, implement a viewercontrol selection indicated by the video control signal, and transfer the video content signals to the first communication interface if the communication interface is indicated by the video from control signal received the second communication interface or transfer the video content signals to the second communication interface if the second communication interface is indicated by the video control signal.

(EX1001, 6:27-47.)

III. The Asserted Grounds

As shown below, Petitioner advances three grounds of challenge based on three references in various combinations:

Ground	Claims	Basis	References
1	1-25	§102	Ellis ¹
2	1-25	§103	Ellis and Browne ²
3	1-25	§103	Ellis and Humpleman ³

Set forth below are summaries of the relevant teachings from each of these references.

For each Ground, Petitioner's arguments focus on claim 1. (*See generally* Pet., 15-40 (Ground 1), 40-53 (Ground 2), 53-66 (Ground 3).) Petitioner contends the other independent claims (claims 10 and 19) are "very similar to independent claim 1" and are "unpatentable for the same reasons as set forth above for claim 1." (*Id.*, 37-38, 51, 64-65.) The remaining claims all depend from one of those three independent claims. Because Petitioner relies on its claim 1 arguments for the other independent claims without further analysis on non-preamble limitations (*see id.*, 37-40, 51-52, 64-66), Patent Owner responds to Petitioner's arguments only once for each Ground in Section VI below.

¹ U.S. Patent No. 7,913,278 (EX1008).

² Published PCT Application WO 92/22983 (EX1007).

³ U.S. Patent No. 6,182,094 (EX1009).

A. Ellis

Ellis is directed to an interactive television program guide with remote access. Main facility 12 transmits program guide data, such as "program times, channels, titles, and descriptions," from program guide data source 14, to interactive television program guide equipment 17 over communications link 18:

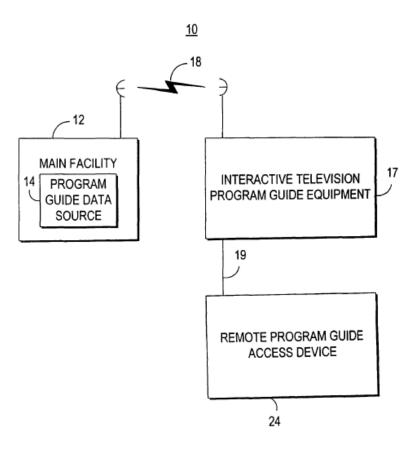


FIG. 1

(EX1008, FIG. 1; see id., 4:40-47, 4:30-33)

As FIG. 2d illustrates, interactive television program guide equipment 17 is connected to remote program access device 24 via remote access link 19:

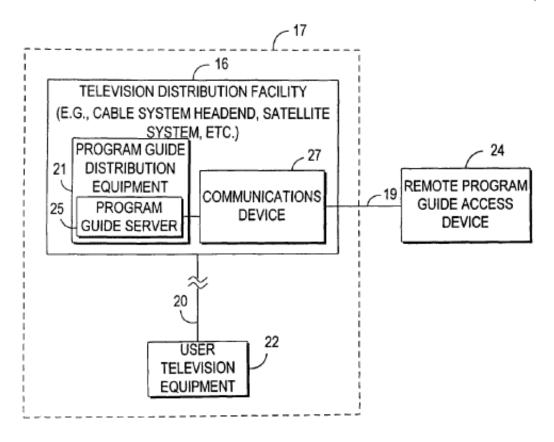


FIG. 2d

(EX1008, FIG. 2d)

Interactive television program guide equipment 17 includes television distribution facility 16, such as a cable system headend. (EX1008, 4:57-65.) Program guide distribution equipment 21 (which includes program guide server 25) and communications device 27 are located within television distribution facility 16. (EX1008, 4:57-62.)

Program guide data originating with main facility 12 may be stored in program guide server 25 of program guide distribution equipment 21 or transmitted to

program guide access device 24 via communications link 19 and stored on remote program access device 24's storage component 56:

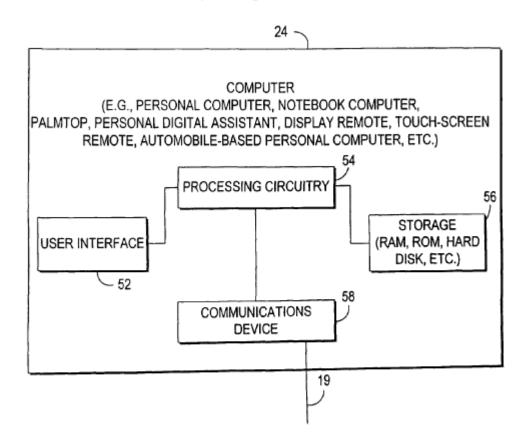


FIG. 5

(EX1008, FIG. 5; see id., 18:16-18)

When a user seeks to access program guide features, the user issues an appropriate command to remote program guide access device 24. (EX1008, 14:3-11.) Remote program access device 24 then accesses stored program guide data in storage component 56 or obtains this program guide data from program guide server 25 via communications link 19. (EX1008, 14:3-11.) Using the program guide data, remote program access device 24 then "generate[s] an appropriate display screen for

display" on its user interface 52. (EX1008, 14:3-11.) For example, remote program access device 24 can generate a screen that includes program listings divided into a number of equally-spaced columns corresponding to program broadcast times with program listing rows:

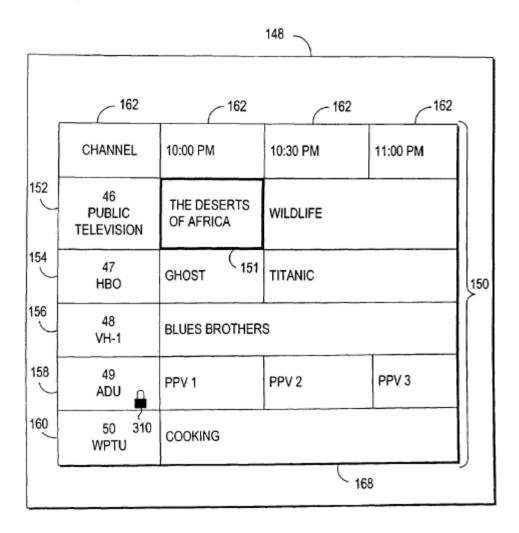


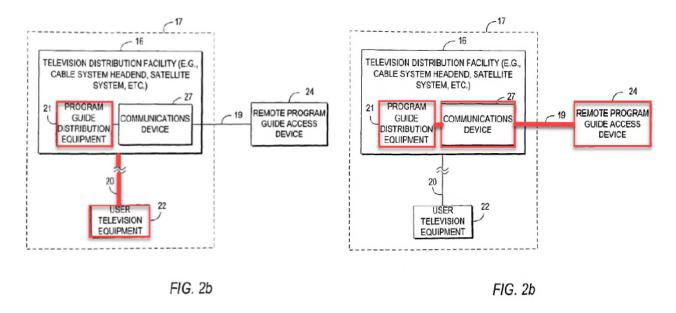
FIG. 7

(EX1008, FIG. 7; see id., 14:49-53)

"Program listings may be displayed in the grid in sub-sets according to predefined or selectable organization criteria and sorted in various ways." (EX1008, 14:53-55.)

Program listing rows, such as 152, contain selectable program listings for the corresponding channel, such as channel 46. (EX1008, 14:55-58.)

Petitioner's annotations to Ellis's Figure 2b illustrate the alleged transmission paths for the alleged *first* and *second video signals*.

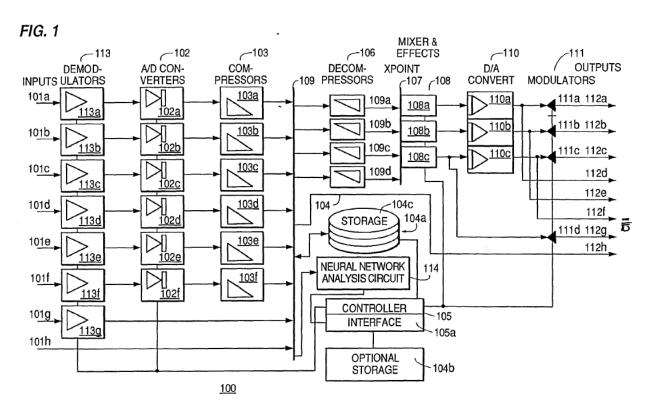


"first communication system" and "interface" (left) (Pet., 20); "second communication system" and "interface" (right) (Pet., 26)

B. Browne

Browne is directed to a multi-source recorder player 100 capable of receiving, recording, and playing a plurality of simultaneous input signals. (EX1007, 1.) Controller 105 generates various control screens, which are transmitted to digital crosspoint 107 and to output 112a for display on a device, such as a television, connected to output 112a, as shown below. (*See* EX1007, 22 ("The series of calendar screens . . . like the other control screens, is generated on screen by controller 105

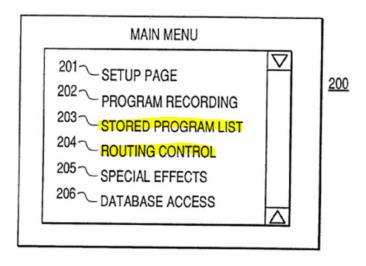
and is mixed at the crosspoint 107 and mixer and effects processing section 108."); see also id., 16.)



(EX1007, FIG. 1)

Controller 105 generates main menu screen signal 200, which includes stored program list option 203 and routing control option 204:

FIG. 2



(EX1007, FIG. 2 (annotated))

By selecting stored program list option 203 from main user control menu 200, controller 105 generates stored program list screen signal 600, which identifies the recorded and to-be-recorded programs, for display on the television connected to output 112a. (EX1007, 24.)

FIG. 6

110.0			600							
							FR	EE PR	OGRAM MEMORY	4.75 HRS
#	LOCKE	D TITLE	SOURCE C	HANNE	L TIME	DAT	E L	ENGTH	NOTES	VIEWED
1		NOT YET	VHF	4	4:00 - 4:30	MAY 17,	1991	0.5	NOT YET RECORDED	
2			FM	99.5	1:12 - 1:20	MAY 15,	1991	0.12		⊠
3		NIGHTLY NEWS	VHF#	4	6:00 - 8:00	MAY 13,	1991	2.0		
4	⊠	BATMAN	CABLE	29	8:00 - 10:00	DEC 28,	1990	2.0	KEEP FOR WENDY	
5		THE ASTRONOMERS	VHF	13	6:30 - 7:30	MAY 13,	1991	1.0		
		,								

(EX1007, FIG. 6)

When a user selects a recorded program, controller 105 outputs the desired program to decompression section 106. (EX1007, 14.) The decompressed data is then input to the high-speed data bus of digital crosspoint 107 and transferred for display on one or more outputs 112a-h. (EX1007, 14.)

By selecting routing control option 204 from main user control menu 200, controller 105 generates routing controller screen signal 700 for the television connected to output 112a, which allows the user to select the type of signal, such as cable TV or VCR input, that will be output from each output 112a-h, as shown below.

FIG. 7

INPUT SELECTION Δ CABLE TV 702 O OUTPUT 2 VHF TV 112c DBS TV O OUTPUT 3 VHF TV FM RADIO <u>700</u> AM RADIO VCR INPUT CASSETTE INPUT STORED PROGRAMMING ADD TO EXISTING OUTPUT ☐ REMOVE FROM OUTPUT O CONNECT SELECTED OUTPUT STATUS 112a 703 SOURCES MODE Δ TILED WINDOW ∇ VHF CHANNEL 2 VHF CHANNEL 4 CABLE CHANNEL 21 STORED PROGRAM 12

(EX1007, FIG. 7; see also id., 26-27)

C. Humpleman

Humpleman is directed to a method and system for generating a program guide for a home network and controlling a plurality of devices physically connected to that network. (EX1009, 2:20-28, 5:27-38.) The system may include several home devices, namely DTV 102, DVD 108, DVCR 110, DSS-NIU 104, and security system 120, connected to the home network via 1394 serial bus 114 or a wireless bus:

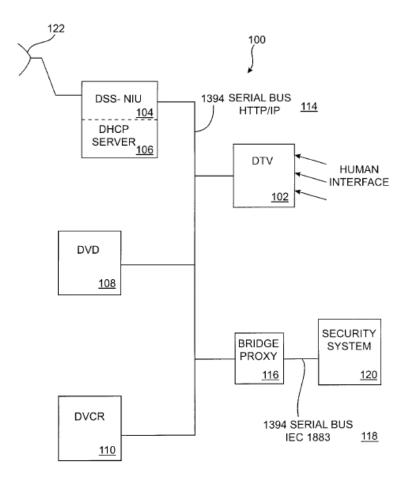
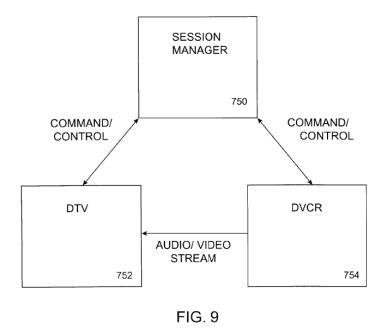


FIG. 1

(EX1009, FIG. 1; see also id., 5:29-38, 6:31-34)

"A client server relationship exists among the attached devices [] [w]ith the DTV 102 typically behaving as the client and home devices DVCR 110, DVD 108, DSS-NIU 104 and security system 120 behaving as servers." (EX1009, 6:34-37.) Any home device with a display screen, such as DTV 102, can serve as a session server. (EX1009, 18:45-48, 5:55-62.) A session server is a device that contains a session manager, a screen, its own HTML files, *i.e.* graphical user interfaces, and a browser. (EX1009, 18:48-51.) The session manager acts as the primary interface between the user and the home network, assisting the user in interacting with the network and controlling the home devices connected to the network:

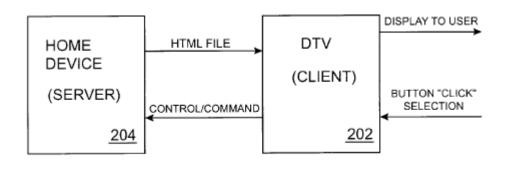


(EX1009, FIG. 9; see also id., 9:22-26)

Each home device includes one or more HTML files, *i.e.* graphical user interfaces, defining its control and command functions, which it sends to DTV 102.

(EX1009, 6:38-55.) "The browser based DTV 102 . . . graphically displays the respective control and command information on its viewable display." (EX1009, 6:43-47.) In particular, upon receiving a home device's HTML file, DTV's session manager generates and displays a session page to the user. (EX1009, 18:52-56.)

By selecting an icon on the display, DTV is prompted to send a command to the home device to perform the requested function and in this way the user can control a home device from DTV's display:



(EX1009, FIG. 3A; see also id., 7:18-23)

FIG. 3A

For example, when a user selects "Dad's TV" and "Jim's DVD" device buttons, DTV 102's session manager displays the graphical user interface, *i.e.* HTML file, transmitted from each of Dad's TV and Jim's DVD:

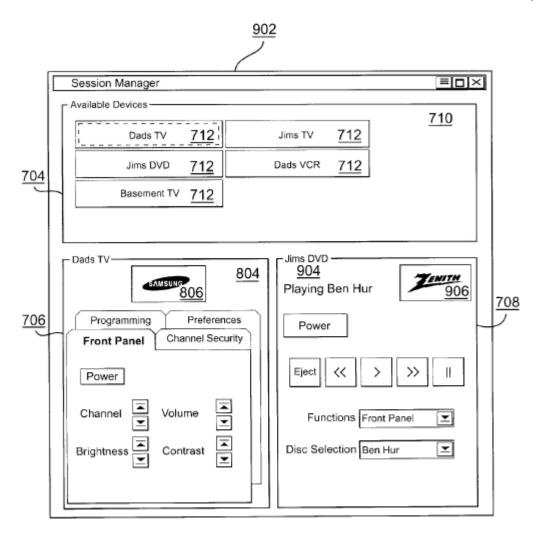


FIG. 11

(EX1009, FIG. 11)

When the user presses the play button for Jim's DVD, the session manager sends a command over the 1394 serial bus to DVCR, and in particular DVCR's control application, which, in turn, causes the DVCR hardware to play the video signal on a particular isochronous stream. (EX1009, 20:16-19, 19:35-38.) "[T]he control application is a device-specific packet of Java code that communicates with

the hardware of the respective home device, thereby controlling that home device." (EX1009, 19:41-44.)

IV. Level of Ordinary Skill

Petitioner provides a definition for a person of ordinary skill in the art ("POSITA"). (Pet., 9.) While Patent Owner reserves the right to dispute Petitioner's definition if trial is instituted, Petitioner's arguments fail even under its proposed definition of a POSITA.

V. Claim Construction

For *inter partes* review, the claim terms should be given the ordinary meaning the terms would have to a POSITA in view of the specification and file history on the effective filing date. *See* 37 C.F.R. § 42.100(b), *as amended by* 83 Fed. Reg. 51340, 51358 (Oct. 11, 2018); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-1313 (Fed. Cir. 2005) (en banc). For purposes of the arguments in this paper, Patent Owner does not propose any claim constructions. Omission of any construction for any term is not acquiescence to any construction positions expressly or impliedly advanced in the Petition, and Patent Owner reserves the right to advance constructions and supporting arguments in future papers.⁴

⁴ While the art fails under all proposed constructions, Sprint disputes the claim constructions the district court adopted in the *Comcast Cable Communications*, *LLC*

VI. Petitioner Fails to Show a Reasonable Likelihood of Prevailing on Any Claim

A. Legal Standard

The Board may not institute *inter partes* review unless it determines "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a); *see* 37 C.F.R. § 42.108(c).

To show anticipation, Petitioner must prove that a single prior art reference "not only disclose[s] all elements of the claim within the four corners of the document, but must also disclose those elements 'arranged as in the claim.'" *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)).

To prevail on the asserted obviousness grounds, Petitioner must prove that the cited references disclose all the limitations of the claims and "that a relevant skilled artisan would have had a motivation to combine [them] to produce the claimed . . . inventions with a reasonable expectation of success." *PersonalWeb Techs.*, *LLC v. Apple, Inc.*, 848 F.3d 987, 989 (Fed. Cir. 2017). Petitioner bears the burden of

v. Sprint Communications Company, L.P. litigation (Case No. 2:12cv859, Doc. 162 (Aug. 15, 2014)). Those constructions violate several Federal Circuit principles, including, at least, reading in a negative limitation to a non-limiting term in the preamble.

proving unpatentability and must "articulate specific reasoning, based on evidence of record," to do so; "mere conclusory statements" will not suffice. *In re Magnum Oil Tools Int'l Ltd.*, 829 F.3d 1364, 1377 (Fed. Cir. 2016). Nor may Petitioner "simply retrace[] the path of the inventor with hindsight, discount[] the number and complexity of the alternatives, and conclude[] that the invention . . . was obvious." *Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1364 (Fed. Cir. 2008). Rather, Petitioner must meet its burden "without any hint of hindsight." *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 655 F.3d 1364, 1375 (Fed. Cir. 2011).

"It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify 'with particularity' the 'evidence that supports the grounds for the challenge to each claim." *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (quoting 35 U.S.C. § 312(a)(3)). In addition, petitioners must identify "where each element of the claim is found in the prior art patents or printed publications relied upon." 37 C.F.R. § 42.104(b)(4). A petition that fails to identify required information should not be considered, *see* 35 U.S.C. § 312(a), and, even if it is, such a petition cannot succeed because the petitioner cannot later identify new evidence or structures as claim elements. *See Intelligent Bio-Sys.*, 821 F.3d at 1369 (Fed. Cir. 2016) ("[P]etitioners [have an obligation] to make their case in their petition to institute."); *see also In re Nuvasive*, 841 F.3d 966, 972-73 (Fed. Cir. 2016) (explaining that

Patent Owner lacked opportunity to respond when Petitioner identified structure for the first time in its Reply).

B. Ellis Does Not Anticipate the Challenged Claims (Ground 1)

Petitioner's Ground 1 fails because Ellis does not disclose a *viewer control signal* indicating a *first* or *second communication system*, as required by Element [C], or a *control screen signal*, as required by Elements [B] and [C]. These deficiencies are fatal to Petitioner's arguments. Petitioner relies on these arguments for every claim of the '4907 patent and fails to establish a reasonable likelihood of prevailing on Ground 1 as to any claim.

1. Ellis does not disclose the *processing system* recited by Element [C]

Ellis does not disclose a *processing system* configured in the manner claimed in Element [C], which recites:

a processing system configured to ... receive the video control signal from the second communication interface, implement a viewer control selection indicated by the video control signal, and transfer the video content signals to the first communication interface if the first communication interface is indicated by the video control signal received from the second communication interface or transfer the video content signals to the second communication interface if the second communication interface is indicated by the video control signal.

(EX1001, 6:36-47.)

a) Ellis does not disclose the *video control signal* indicating a *first* or *second communication interface*

Ellis does not disclose that a *video control signal* indicates either a *first* or *second communication interface*, as further required by Element [C]. Critically, the only thing Petitioner asserts that the alleged *video control signal* indicates is "the user's selection of video or audio," <u>not</u> the alleged *first* or *second communication interface*. (Pet., 29; *see id.*, 28 (alleging that "[the] user generated control signal[] indicating the user's selection of video" is the *video control signal*).)

Petitioner does not assert that Ellis' alleged *video control signal* indicates the alleged *first* or *second communication interface*. Instead, Petitioner maintains that Ellis teaches that television distribution facility 16 may transmit selected video or audio to remote program guide access device 24 using the alleged *second communication interface*. (Pet., 30.) Petitioner further maintains that television distribution facility 16 also may transfer the selected video or audio to television equipment 22 for display using the alleged *first communication interface*. (*Id.*) According to Petitioner, these transmissions would be "in response to" the alleged *video control signal*. (*Id.*)

Essentially, Petitioner maintains that these supposed disclosures of Ellis inherently teach the required indication. But inherency "requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present,

in the prior art." *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002) (quoting *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999)). Even if video or audio is transmitted using a *first communication interface* or a *second communication interface* "in response" to Ellis's alleged *video control signal*, as Petitioner alleges, it does not necessarily follow that this signal <u>indicates</u> a *first* or *second communication interface*.

Petitioner does not advance any evidence, expert or otherwise, that Ellis's alleged *video control signal* necessarily indicates a *first* or *second communication system*. (*See* Pet., 30 (citing EX1008, 4:57-67, 6:61-7:5).) The cited passages of Ellis merely disclose that "[t]elevision distribution facility 16 may distribute television programming [and program guide data] to user television equipment 22 via communications path 20," and that there may be many such users with their own equipment and communications paths. (EX1008, 6:61-7:5; *see id.*, 4:57-67 (describing system elements and the distribution of program guide data to users "via communications path 20").) They do not disclose that the alleged *control signal* sent by remote access device 24 indicates either link 19 or communications path 20 for distribution of television programming. (*Id.*) In fact, they do not mention the remote access device 24 at all.

The Petition does not even cite Dr. Almeroth's declaration anywhere in the argument that Ellis discloses this limitation of Element [C]. (See Pet., 29-30.) Even

if it did, the only paragraph on point adds nothing to what the Petition says. (EX1002 ¶82.) Indeed, it is practically identical to the corresponding paragraph in the Petition and cites the same passages from Ellis. (*Compare id. with* Pet., 29-30.) There is no further discussion or explanation of those passages. Nor is there any reference to other passages in Ellis that might support Dr. Almeroth's conclusion. Unsupported conclusions by an expert are "entitled to little or no weight" and cannot establish the reasonable likelihood of prevailing required to permit institution. 37 C.F.R. § 42.65(a); *see, e.g., Coxcom, LLC v. Joao Control & Monitoring Sys., LLC*, IPR2015-01765, 2016 WL 1084191, at *3, *4 (PTAB Feb. 19, 2016) (finding institution threshold not met where Petitioner relied on conclusory expert testimony) (citing *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294 (Fed. Cir. 1985)).

Petitioner therefore fails to demonstrate that Ellis expressly or inherently discloses this portion of Element [C]. *See, e.g., Roland Corp. v. Inmusic Brands, Inc.*, IPR2018-00335, 2018 WL 3244506, at *7 (PTAB July 2, 2018) (denying institution where Petitioner failed to proffer sufficient evidence or argument that the missing element was necessarily present); *Under Armour, Inc. v. Adidas AG*, IPR2015-00694, 2015 WL 4760591, at *6–7 (PTAB July 16, 2015) (denying institution where Petitioner failed to provide evidence that the missing descriptive

matter was necessarily present in prior art reference and that it would be so recognized by persons of ordinary skill in the art).

For at least this reason, the Petition fails to show a reasonable likelihood of prevailing on Ground 1.

b) Ellis does not disclose a *processing system* configured to receive a *video control signal* from the *second communication interface*

Petitioner also fails to demonstrate that Ellis discloses "a processing system configured to . . . receive the video control signal from the second communication interface," as Element [C] requires. According to Petitioner, "Ellis discloses that the video control signals (the user control selections for video and audio signals) are transferred by the communication device 27 and program guide distribution equipment 21 (collectively the 'second communication interface') and received by the television distribution facility 16 and interactive television program guide 17." (Pet., 28 (citing EX1008, 6:26-36, 25:63-26:9, FIGs. 1, 2b).) Petitioner identifies television distribution facility 16 as the *processing system* of Element [C]. (Pet., 27-28.) Petitioner's contentions are illustrated in the annotated Figure below.

⁵ Ellis's interactive television program guide 17 does not correspond to any element of the claims.

Petitoner contends:

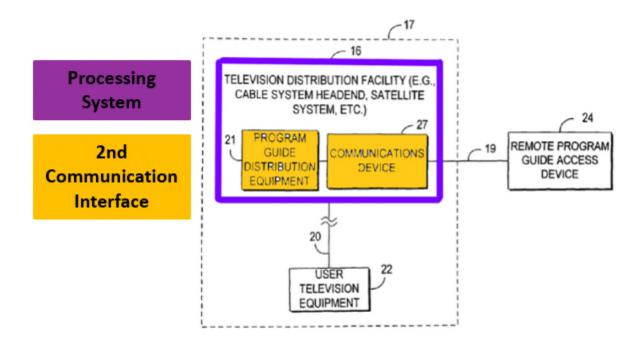


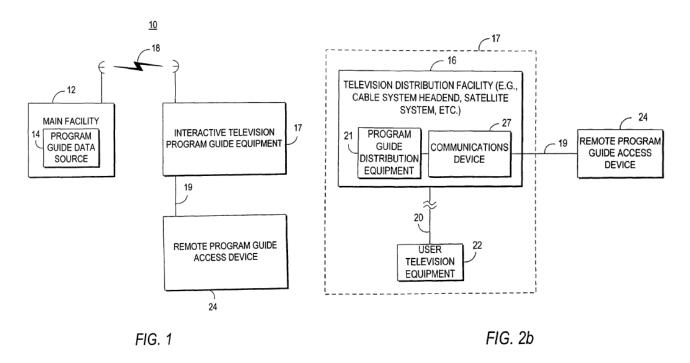
FIG. 2b

(EX1008, FIG. 2b (annotated); see also Pet., 35-36)

Petitioner fails to cite any evidence that Ellis discloses transferring the alleged *video control signal* from the alleged *second communication interface* to the alleged *processing system*. In particular, the cited passages of Ellis do not teach that television distribution facility 16 receives remote program access device 24's control selections for video or audio (the alleged *video control signals*) from program guide distribution equipment 21 and communication device 27 (the alleged *second communication interface*) as Element [C] requires. (*See* EX1008, 6:26-36, 25:63-26:9.) Instead, these passages teach that remote program access device 24

communicates "with program guide server 25 . . . via communication device 27" (EX1008, 6:26-29); that "the remote access program guide [24] may obtain the selected video or audio from the local interactive television program guide using access communications that are sent over remote access link 19" (*id.*, 26:2-6.); and that "user interface 52" of remote access program guide 24 can be used to select and play the "video or audio" (*see id.*, 25:63-26:9).

In addition, Figures 1 and 2b—the only other portions of Ellis that Petitioner relies on for this limitation—do not disclose that television distribution facility 16 receives remote program access device 24's control selections for video or audio (the alleged *video control signals*) **from** program guide distribution equipment 21 and communication device 27 (the alleged *second communication interface*):



(EX1008, FIGs. 1, 2b)

Figure 1 does not even illustrate program guide distribution equipment 21 and communications device 27. (EX1008, FIG. 1.) Nor do Figures 1 and 2b depict any communications between television distribution facility 16 and program guide distribution equipment 21 and communications device 27. (EX1008, FIGs. 1, 2d.) Indeed, the portions of Ellis that Petitioner relies on say nothing about transferring control selections between the alleged *second communication interface* and *processing system*.

2. Ellis's program guide data is not a *control screen signal*, as recited in Elements [B] and [C]

Ellis also does not disclose a *control screen signal*, let alone one that is transferred in the manner claimed. Claim 1 recites "a second communication interface configured to ... transfer a control screen signal to the second communication system," as part of Element [B]. It also recites "a processing system configured to transfer the control screen signal to the second communication interface," as part of Element [C]. Petitioner proposes construing *control screen signal* to mean "a signal that defines a control screen." (Pet., 13.) But Ellis does not disclose any "signal that <u>defines a control screen</u>" being transferred to the alleged *second communication system* via the alleged *second communication interface*, and Petitioner cites no evidence that it does.

Petitioner contends that Ellis's program guide information is a *control screen* signal because it is displayed visually. (Pet., 23-24 (citing EX1008, 14:3-12, 20:67-

21:3).) But, as Ellis describes, the program guide data is information about *television* programs, such as program times, not information that defines a *control screen* for a video-on-demand system:

[t]he interactive television program guide data transmitted by main facility 12 to interactive television program guide equipment 17 may include television program listings data (e.g., program times, channels, titles, and descriptions) and other program guide data for additional services other than television program listings (e.g., pay-per-view information, weather information, associated Internet web links, computer software, etc.).

(EX1008, 4:40-47 (underlines added).)

The passages from Ellis on which Petitioner relies do not teach a control screen because they disclose no control capability. The first passage states:

When a user indicates a desire to access program guide features by issuing an appropriate command to remote program guide access device 24, remote program guide access device 24 may, for example, access stored program guide information or obtain program guide information from interactive television program guide equipment 17 via remote access link 19 using any of the approaches already described, and generate an appropriate display screen for display using user interface 52.

(EX1008, 14:3-12 (underlines added).) This merely discloses that the program guide information is displayed visually, not that it "defines a control screen," as the construed claim requires. The second passage is similar. (*See id.*, 20:67-21:3 (describing a "program guide function" being "provided visually . . . using a . . . display device").) But Petitioner cites no evidence that the displayed program guide information can be used to <u>control</u> anything. A display screen is not necessarily a *control screen*; a screen defined by a *control screen signal* must have some control functionality. (*See* EX1001, 3:24-27, FIG. 2-5.)

Accordingly, Petitioner has not shown that the program guide data transferred from interactive television program guide equipment 17 (of which the alleged *second communication interface* is part) to link 19 (the alleged *second communication system*) is a *control screen signal* because it does not define a control screen. As shown above, it merely conveys information about television programs, which remote access guide device 24 displays, but there is no evidence this display screen has any control functionality, *i.e.*, that it is a *control screen*.

Ellis therefore does not disclose the *control screen signal* of the claims or the related limitations, including transferring the signal to the *second communication system* in Element [B] and to the *second communication interface* in Element [C]. Accordingly, Petitioner has no likelihood of prevailing on Ground 1.

3. Petitioner fails to demonstrate a reasonable likelihood that it would prevail on Ground 1 for any claim

For at least the foregoing reasons, Petitioner's challenge fails with respect to claim 1 and claims 2-9, which depend from claim 1. Petitioner also maintains that the remaining independent claims of the '4907 patent—claims 10 and 19—are "very similar" to independent claim 1 and are unpatentable for "the same reasons" it advances for claim 1. (Pet., 37-38.) Those reasons are inadequate to challenge the patentability of claim 1, so Petitioner's challenge to claims 10 and 19, and dependent claims 11-18 and 20-25, also fails.

C. The Challenged Claims Would Not Have Been Obvious over Ellis and Browne (Ground 2)

Browne does not cure the deficiencies of Ellis identified above. For example, as explained in Section VI.B.1 above, Ellis does not disclose or suggest a *video control signal* indicating a *first* or *second communication interface*. Ellis therefore fails to disclose Element [C]. Combining Browne with Ellis does not change this, nor does Petitioner suggest it does. (*See* Pet., 47-48.) Accordingly, Petitioner fails to show any likelihood of prevailing on Ground 2 for at least the same reasons as Ground 1.

Rather, Petitioner relies on Browne only for limitations related to the *control* screen signal in Elements [B] and [C]. (See id., 46-48.) But Browne does not disclose the features for which it is cited—transferring a control screen signal to a second

communication interface and to a second communication system—as explained below. Moreover, Petitioner fails to offer any motivation to combine the relevant features of Browne with Ellis. Petitioner relies on these arguments for every claim of the '4907 patent and thus Petitioner fails to establish a reasonable likelihood of prevailing on Ground 2 as to any claim.

1. Browne does not disclose Elements [B] and [C]

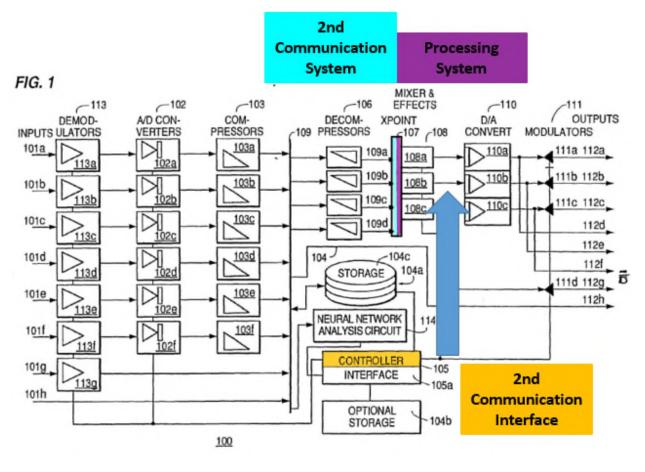
As shown above, Ellis does not disclose the recited transfer of a *control screen* signal in Elements [B] and [C].⁶ Browne does not cure those gaps in Ellis's disclosure, and Petitioner fails to show otherwise.

Petitioner fails to advance evidence that Browne's digital crosspoint 107 (the alleged *processing system*) is configured to transfer the main menu screen signal, stored program list menu signal, and/or routing control menu signal (the alleged *control screen signal*) to controller 105 (the alleged *second communication interface*) as Element [C] requires.

⁶ Again, the relevant parts of Elements [B] and [C] recite: "a second communication interface configured to . . . transfer a control screen signal to the second communication system" and "a processing system configured to transfer the control screen signal to the second communication interface."

Petitioner alleges that Browne's digital crosspoint 107 is the *processing* system, the controller 105 is the second communication interface, and the high speed data bus of digital crosspoint 107 is the second communication system. (Pet., 46, 48.) Petitioner further alleges that controller 105 generates a virtual control screen, which is identified as the control screen signal. (Id., 46.) According to Petitioner, this virtual control screen can include the display of a "list of programs stored and set for storing" by Browne's video recording system. (Id., 47 (citing EX1007, 24, FIG. 2).) Petitioner contends (for Element [B]) that Browne discloses controller 105 transferring the alleged control screen signal to the high speed data bus of crosspoint (or Xpoint) 107. (Id., 58.) This contention is illustrated by the annotations in the Figure below.

Petitioner contends:

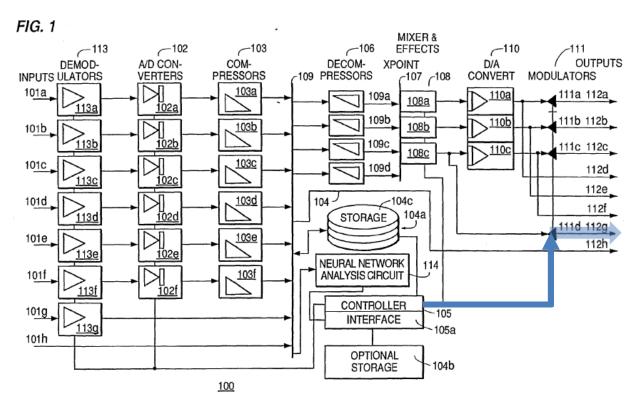


(EX1007, FIG. 1 (annotated))

Petitioner further contends (for Element [C]) that Browne's digital crosspoint 107 transfers the "stored program list" to controller 105. (Pet., 48.) Notably, this would be the opposite of the allegedly disclosed transfer cited for Element [B] and depicted by the annotations in the Figure above.

Browne does not support either of Petitioner's contentions. Rather, Browne discloses that "controller 105 generates a virtual control screen which may be placed on any screen," and the screens are the "output monitor[s]" (112a-h). (EX1007, 15;

see id. ("The multi-source recorder player 100 preferably has a plurality of outputs, shown as 112a-112h in Fig. 1.").) Browne never discloses that the alleged *control screen signal* is transferred to crosspoint 107 at all, let alone by controller 105. Nor is such a transfer necessary; as shown in the annotated Figure below, controller 105 may transfer signals directly to modulators 111 connected to outputs 112.



(EX1007, FIG. 1 (annotated))

Browne discloses that controller 105 may "output [a <u>desired program</u>] to decompression section 106," and from there, "to the digital crosspoint 107." (*Id.*, 14.) To the extent Petitioner relies on this disclosure (*see* Pet., 46 (citing EX1007, 13-14), that reliance is misplaced because this "desired program" is not the alleged *control screen signal* (*i.e.*, "virtual control screen" or the "stored program list"). Any

disclosed transfer of the "desired program" is irrelevant. Thus, Browne does not disclose the transfer recited in Element [B].

Petitioner likewise advances no evidence that Browne's digital crosspoint 107 (the alleged *processing system*) is configured to transfer the alleged *control screen signal* to controller 105 (the alleged *second communication interface*), as Element [C] requires. Indeed, Petitioner cites the same disclosure relied upon for Element [B] and discussed above. (*See* Pet., 47-48 (citing EX1007, 1, 13-14, 24, FIG. 2).) As shown above, those passages disclose that control 105 sends the alleged *control screen signal* directly to outputs 112a-h. They do not disclose any role for digital crosspoint 107, especially not transferring the signal to controller 105. "The controller 105 generates [the] virtual control screen," so nothing transfers the virtual control screen to controller 105. (EX1007, 13 (underline added).)

Browne therefore does not disclose the limitations of Elements [B] and [C] that Petitioner contends it does.

2. Petitioner fails to explain why a POSITA would have combined Browne with Ellis to arrive at Elements [B] and [C]

Petitioner also fails to support the proposed combination of Browne with Ellis in any way that relates to the particular features for which Browne is cited. Petitioner proposes implementing "the control screen and video control menus of *Browne* on the remote control of *Ellis*." (Pet., 40.) But Petitioner cites Browne for considerably

more than its disclosure of a "control screen and video control menus." As discussed above, Petitioner argues that Browne discloses the limitations of Elements [B] and [C] regarding the <u>transfer</u> of a *control screen signal*. (*Id.*, 46-48.)

The components that allegedly process and transfer Browne's virtual control screen (the alleged *control screen signal*) are completely distinct from the features of the screen itself. Petitioner does not show (or attempt to show) why or how Browne's teachings relating to these components—controller 105 and digital crosspoint 107 (including associated high speed data bus)—would have been combined with Ellis. Rather, Petitioner argues that a POSITA "would have naturally been motivated to use . . . the control configurations taught by Browne" in Ellis's controller. (Id., 41.) Petitioner similarly argues that "an increase in demand for systems with different content sources and remote controls" would have led a POSITA to add more control features, such as the "controls or signals used in a remote control in Browne." (Id., 41-42.) Petitioner further argues that a remote control using these "controls or signals" would be "interchangeable with the remote control in *Ellis*," but cites no evidence to support this. (*Id.*, 42.) And, also, Petitioner contends that "a POSITA would have been motivated to use a controller with a control screen, as taught by Browne" because of "Browne's stated aim of providing 'the user greater flexibility and control over the recording and replaying of programs." (*Id.*, 44 (underline added) (citing EX1002 ¶118; EX1007, 2).)

These purported motivations are generic and insufficient. Rote recitation of Browne's goals does not suffice as a motivation to combine Browne with Ellis in the way Elements [B] and [C] recite. *Volkswagen Group of Am., Inc. v. Velocity Patent LLC*, IPR2015-00276, 2015 WL 3543109, at *7 (PTAB June 1, 2019) (holding that rote recitation of the goals of a prior art reference fails to explain why a POSITA would have combined elements from specific reference in the way the claimed invention does).

Moreover, the proposed motivations address only the features of the control screen and user interface. They bear no relationship to Browne's component parts. Further, Petitioner does not assert that it would have been obvious to modify Ellis's system based on Browne's teachings about a digital crosspoint, a controller, and a high speed data bus (Browne's alleged *processing system, second communication interface*, and *second communication system*, respectively). (*See* Pet., 40-45; EX1002 ¶111-120.) Thus, Petitioner "fails to explain why a person of ordinary skill in the art would have combined elements from specific references *in the way the claimed invention does*" and cannot prevail on Ground 2. *ActiveVideo Networks, Inc. v. Verizon Comms., Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012) (citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)).

Furthermore, Petitioner's secondary arguments directed to analogous art, namely that Ellis and Browne are in the same field of endeavor and use similar

techniques to solve the same problems as the '4907 patent (Pet., 43-44), "[are] merely a jumping-off point, and insufficient by [themselves], in reaching the determination of whether a claimed invention is obvious." *Alphonso, Inc. v. Free Stream Media Corp.*, IPR2017-01731, 2018 WL 566832, at *4 (PTAB Jan. 25, 2018); *TRW Auto. US LLC v. Magna Elecs., Inc.*, IPR2014-00257, Paper 18 at 4 (PTAB Aug. 28, 2014) ("That each reference may be in the field of 'vehicular vision' is insufficient, in and of itself, to provide a reason with rationale underpinning as to why one of ordinary skill in the art would have sought to combine specific teachings of such references.").

Petitioner's remaining argument—that the combination of Ellis and Browne "would have yielded no unexpected results" (Pet., 45)—just like its analogous art arguments is insufficient in that it fails to provide a reason *why* or *how* a POSITA would have combined Browne with Ellis to arrive at Elements [B] and [C] of the '4907 patent. *See, e.g., Alphonso, Inc.*, 2018 WL 566832 at *7 ("[I]f there is no reason to perform the modification in the first place, a lack of unexpected results is superfluous.").

Indeed, even if there were some motivation to incorporate the cited teachings of Browne, Petitioner fails to explain how these features correspond to the features in Ellis that Petitioner identifies for the same claim elements. For example, if Browne's high speed data bus is the alleged *second communication system* for

transferring the *control screen signal* (Pet., 46), and Ellis's access link 19 is the alleged *second communication system* for transferring *video content signals* (*id.*, 21), Petitioner must explain how the combination could result in a single *second communication system* of the claims. The same is also true for both the *second communication interface* and the *processing system*. Petitioner does not explain any of this, and this failure further dooms Ground 2. *See Comcast Cable Commc'ns, LLC v. Promptu Sys. Corp.*, IPR2019-00341, 2018 WL 3198745, at *7 (PTAB June 26, 2018) ("A determination of obviousness cannot be reached where the record lacks 'explanation as to *how* or *why* the references would be combined to produce the claimed invention.") (quoting *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016)).

For at least these reasons, Petitioner fails to show any reason a person of ordinary skill in the art would have combined the cited references in a manner that would have led to the claimed invention and cannot prevail on Ground 2.

3. Petitioner fails to demonstrate a reasonable likelihood that it would prevail on Ground 2 for any claim

For at least the foregoing reasons, Petitioner's challenge fails with respect to claim 1 and claims 2-9, which depend from claim 1. Petitioner also maintains that the remaining independent claims of the '4907 patent—claims 10 and 19—are "very similar" to independent claim 1 and are unpatentable for "the same reasons" it advances for claim 1. (Pet., 51.) Those reasons are inadequate to challenge the

patentability of claim 1, so Petitioner's challenge to claims 10 and 19, and dependent claims 11-18 and 20-25, also fails.

D. The Challenged Claims Would Not Have Been Obvious over Ellis and Humpleman (Ground 3)

Like Browne, Humpleman does not cure the deficiencies of Petitioner's Ground 1. For example, as explained in Section VI.B.1 above, Ellis does not disclose a *video control signal* indicating a *first* or *second communication interface*. Ellis therefore fails to disclose Element [C]. Combining Humpleman with Ellis does not change this, nor does Petitioner suggest it does. (*See* Pet., 58-62.) Accordingly, Petitioner fails to show any likelihood of prevailing on Ground 3 for at least the same reasons as Ground 1.

Rather, Petitioner relies on Humpleman for the same *control screen signal* limitations in Elements [B] and [C] for which Petitioner cited Browne in Ground 2. (*See id.*) But Humpleman (like Browne) does not disclose the features for which it is cited—transferring a *control screen signal* from a *processing system* to a *second communication interface* and to a *second communication system*—as explained below. Moreover, Petitioner offers virtually identical rationale for combining Humpleman with Ellis to what was offered in Ground 2. This was generic and insufficient when offered to justify the combination with Browne, and it is no better when applied to Humpleman. Petitioner relies on these arguments for every claim of

the '4907 patent and thus fails to establish a reasonable likelihood of prevailing on Ground 3 as to any claim.

1. Humpleman does not disclose Elements [B] and [C]

Contrary to Petitioner's arguments, Humpleman does not teach those portions of Elements [B] and [C] relating to the transfer of a *control screen signal*. Accordingly, combining Humpleman with Ellis does not cure the defects of Ground 1.

As discussed above, Humpleman discloses a home network connecting various home devices, *e.g.*, "digital video device ('DVD') 108" and "digital video cassette recorder ('DVCR') 110," as well as a "browser based [digital TV ('DTV')] 102." (EX1009, 5:47-53, 6:51.) Humpleman discloses that these devices may all be connected to "1394 serial bus 114" (*id.*, 5:40-41, FIG. 1), which Petitioner identifies as the *second communication system*. (Pet., 59.) According to Petitioner, each of the home devices has a "control application" (alleged *first* and *second communication interfaces*) for communicating with a "session manager" (the alleged *processing*

⁷ Again, the relevant parts of Elements [B] and [C] recite: "a second communication interface configured to . . . transfer a control screen signal to the second communication system" and "a processing system configured to transfer the control screen signal to the second communication interface."

system). (Id., 59, 61.) The home devices send HTML files over the home network to DTV 102, which uses these HTML files "to graphically display control and command information to a user for a particular home device" on the network. (EX1009, 6:55-57.) Petitioner identifies the HTML files as control screen signals of the claims. (Pet., 59.) Humpleman does not disclose that these elements of its "home network" satisfy the requisite limitations of claim Elements [B] and [C], and Petitioner fails to show otherwise.

Humpleman discloses that each home device sends its HTML file to DTV 102 over bus 114, as illustrated in the annotated figure below. (EX1009, 6:50-57.)

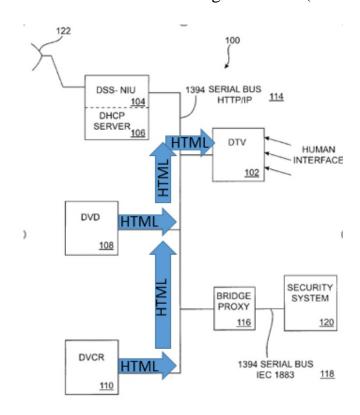


FIG. 1
(EX1009, FIG. 1 (annotated))

DTV 102 uses these files to provide a "human interface" to a user. (*Id.*, 5:55-67.) But Humpleman never discloses these HTML files are transferred anywhere by the alleged *processing system*, the session manager, especially not to the "control application" identified as the *second communication interface*.

As disclosed in the very passages of Humpleman on which Petitioner relies, the session manager sends commands to the home devices, not user interfaces (i.e., the HTML files); the session manager (not the control application) is the primary interface between a user and the home network. (EX1009, 14:5-11; 14:22-33; see Pet., 61 (citing same passages).) The control application only communicates with the session manager because the control application receives and executes commands, which it then "communicates with the hardware of the respective home device, thereby controlling that home device." (EX1009, 19:34-38, 19:41-45; see Pet., 61 (citing same passages).) Thus, if anything, the session manager might receive information about home device interfaces so a user could appropriately interface with and control the home devices. (See, e.g., EX1009, 15:40-43, 17:37-43 (disclosing that session manager displays a "home page" for a given device on the network); Pet., 61 (citing same passages).) But the session manager would not transfer HTML files to the "control application associated with [a home device]," as shown by the same disclosure Petitioner cites. Humpleman therefore does not disclose Element [C].

Petitioner also fails to identify anywhere that Humpleman teaches that control application transfers HTML files to a *second communication system*, as Element [B] requires. The passages from Humpleman on which Petitioner relies describe the physical layer of the home network as, *e.g.*, a 1394 serial bus, and how the HTML files are used by the receiving device. (EX1009, 5:27-38, 5:60-63, 6:19-24, 6:55-63, 7:30-35; *see* Pet., 58-60 (citing same disclosure).) The only passage related to the control application discloses that it receives commands from the network and controls the hardware of a home device. (*See* EX1009, 19:34-45; Pet., 70 (citing EX1009, 19:34-38).) None of these passages suggest the control application transfers the HTML files at all.

For at least these reasons, Humpleman does not disclose the elements for which Petitioner relies on it. Petitioner therefore fails to show a reasonable likelihood of prevailing as to Ground 3.

2. Petitioner fails to explain why a POSITA would have combined Humpleman with Ellis to arrive at Elements [B] and [C]

Petitioner also fails to provide any meaningful reason to combine Humpleman with Ellis in the manner claimed. Just like it did for Browne in Ground 2, Petitioner proposes using "the control screen and video control menus of *Humpleman*." (Pet., 53.) And, in another parallel with the arguments in Ground 2, Petitioner cites *Humpleman* for far more than a control screen and menus. As shown above,

Petitioner cites control applications, a session manager, and the physical layer of an entire home network.

These parallels between the rationales offered for combining references in Grounds 2 and 3 are not coincidental. For much of the argument, Petitioner and its expert advance the same reasons, nearly verbatim, in both Grounds. (Compare Pet., 53-58; EX1002 ¶¶136-146 with Pet., 40-45; EX1002 ¶¶111-120.) Petitioner argues that it would have been a "trivial and obvious choice" to use "control features and control signals" of a secondary reference (Browne or Humpleman) with the remote control of Ellis. (Pet., 41, 53.) Petitioner further argues that the use of "controls or signals" from either secondary reference "would merely be adding these known features [sic]" and "[s]uch a remote control would be interchangeable with the remote control in *Ellis*," and the combination was a "natural fit." (*Id.*, 42, 54.) According to Petitioner, the "multiple video sources" of Ellis are sufficient to motivate a person of ordinary skill in the art with any alternative control screen or signal. (Id., 41, 53.) Petitioner even describes Browne and Humpleman in almost identical terms, despite the differences in their disclosure, as shown in the comparison below.

"Browne describes a video-on-demand system where the controller generates a virtual control screen, which is placed on any screen for a user to control

"Browne Humpleman describes a videoon-demand system where the controller can be in the form of a computer that generates a virtual control screen, which playback and allows the user to select is placed on any screen for and allows a different menu and video sources to display on the controller or television." (Pet., 42-43 (citing EX1007, 13, 27, FIG. 7).)

user to control playback and allows the user to-select different menu and video sources to display on the controller or television." (*Compare* Pet., 55 (citing EX1009, Abstract, 7:18-23, 14:5-33, 15:25-47, 18:45-51) with id., 42-43.)

The fact that Petitioner offers virtually identical reasons for combining two different references with Ellis underscores that the proffered reasons for both are impermissibly generic; they "bear[] no relation to any specific combination of prior art elements." *ActiveVideo Networks, Inc.*, 694 F.3d at 1328. More particularly, Petitioner's rationale bears no relationship to Humpleman's software (e.g., session manager and control application) and networking hardware (e.g., the disclosed 1394 serial bus). Petitioner and its expert do not assert that it would have been obvious to modify Ellis's system based on Humpleman's teachings regarding these features, which Petitioner identified as the claimed *processing system, second communication interface*, and *second communication system*. Petitioner therefore "fails to explain why a person of ordinary skill in the art would have combined elements from specific references in the way the claimed invention does." *Id.* (underline added).

Petitioner's arguments directed to analogous art and the lack of unexpected results are also substantially identical to the ones made regarding the combination of Ellis with Browne in Ground 2. They are insufficient to show a motivation to combine Ellis with Humpleman for the same reasons. (*See* Section VI.C.2, *supra*.)

Furthermore, even if there were some motivation to incorporate the cited teachings of Humpleman, Petitioner fails to explain how these features correspond to the features in Ellis that Petitioner identifies for the same claim elements. For example, if Humpleman's 1394 serial bus is the alleged *second communication system* for transferring the *control screen signal* (Pet., 59), and Ellis's access link 19 is the alleged *second communication system* for transferring *video content signals* (*id.*, 21), Petitioner must explain how the combination could result in a single *second communication system* of the claims. The same is also true for both the *second communication interface* and the *processing system*. Petitioner does not explain any of this, and this failure further dooms Ground 3. *See Comcast Cable Commc'ns*, *LLC*, 2018 WL 3198745, at *7 (citing *TriVascular*, *Inc.*, 812 F.3d at 1066).

For at least these reasons, Petitioner fails to show any reason a person of ordinary skill in the art would have combined the cited references in a manner that would have led to the claimed invention and cannot prevail on Ground 3.

3. Petitioner fails to demonstrate a reasonable likelihood that it would prevail on Ground 3 for any claim

For at least the foregoing reasons, Petitioner's challenge fails with respect to claim 1 and claims 2-9, which depend from claim 1. Petitioner also maintains that the remaining independent claims of the '4907 patent—claims 10 and 19—are "very similar" to independent claim 1 and are unpatentable for "the same reasons" it advances for claim 1. (Pet., 64-65.) Those reasons are inadequate to challenge the

patentability of claim 1, so Petitioner's challenge to claims 10 and 19, and dependent claims 2-9 and 20-25, also fails.

VII. The Board Should Exercise Discretion to Deny Institution on Multiple Parallel Proceedings

The Petition in this proceeding is one of three petitions filed in parallel proceedings challenging the '4907 patent, IPR2019-01136 and IPR2019-01140, as well as the present case. The Board authorized Petitioner to file a Notice explaining why it filed multiple petitions and authorized Patent Owner to file a Notice in response. Patent Owner filed its Notice on September 9, 2019, as authorized. For the reasons to be explained therein, the Board should exercise its discretion to deny institution to multiple parallel petitions against the '4907 patent if it decides to institute on any of them, which Patent Owner respectfully submits it should not.

VIII. Conclusion

For at least the foregoing reasons, Petitioner fails to show a reasonable likelihood of prevailing on any claim, so the Board should decline to institute on the Petition.

Dated: October 11, 2019 Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certifies that a copy of the foregoing was served on October 11, 2019 via email, with consent of Petitioner, directed to the following addresses: deepaacharya@quinnemanuel.com, jimglass@quinnemanuel.com, patrickstafford@quinnemanuel.com, and cameronclawson@quinnemanuel.com, patrickstafford@quinnemanuel.com, and

Dated: October 11, 2019

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PATENT OWNER'S PRELIMINARY RESPONSE, according to the word-processing system used to prepare the paper and not including those parts excluded by § 42.24(a)(1), has 8,536 words, which is within the type-volume limit set by § 42.24.

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