

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner,

v.

PROMPTU SYSTEMS CORPORATION,
Patent Owner.

Case IPR2018-00344
Patent 7,047,196 B2

Before JAMESON LEE, ROBERT L. KINDER, and
ALEX S. YAP, *Administrative Patent Judges*

YAP, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
35 U.S.C. § 314(a)

I. INTRODUCTION

Petitioner, Comcast Cable Communications, LLC. (“Comcast”), filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42 of U.S. Patent 7,047,196 B2 (Ex. 1001, “the ’196 Patent”). Patent Owner, Promptu Systems Corporation. (“Promptu”), filed a Preliminary Response (Paper 8, “Prelim. Resp.”).

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the Petition shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” On April 24, 2018, the Supreme Court held that a final written decision under 35 U.S.C. § 318(a) must decide the patentability of all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1355 (2018). Taking into account the arguments presented in Patent Owner’s Preliminary Response, we determine that the information presented in the Petition establishes that there is a reasonable likelihood that Petitioner would prevail in showing the unpatentability of at least one challenged claim. Accordingly, we institute an *inter partes* review of *all* challenged claims (1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42) of the ’196 Patent, based on all grounds raised in the Petition. *See* April 26, 2018, *Guidance on the Impact of SAS on AIA Trial Proceedings* (“SAS Guidance”).¹

Our factual findings and conclusions at this stage of the proceeding are based on the evidentiary record developed thus far. This is not a final

¹ Available at <https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/trials/guidance-impact-sas-aia-trial>.

decision as to the patentability of claims for which *inter partes* review is instituted. Our final decision will be based on the record as fully developed during trial.

A. Related Matter

The '196 Patent is the subject of a pending civil action, *Promptu Systems Corporation v. Comcast Corporation and Comcast Cable Communications, LLC*, Case No. 2:16-cv-06516 (E.D. Pa.). Patent Owner's Mandatory Notices (Paper 5), 2. Petitioner states that a related "petition for *inter partes* review of different claims" of the '196 Patent was also filed "along with [its] petition" for this case. Pet. x; *see also* IPR2018-00345, Paper 1.

B. The '196 Patent

The '196 Patent, titled "System and Method of Voice Recognition Near a Wireline Node of a Network Supporting Cable Television and/or Video Delivery," was issued on May 16, 2006. Ex. 1001, [45]. It issued from U.S. Patent Application 09/785,375, filed on February 16, 2001, and claims the benefit of U.S. Provisional Application No. 60/210,440 filed on June 8, 2000. *Id.* at [21], [22], [60]. The '196 Patent generally relates to a "method and system of speech recognition presented by a back channel from multiple user sites within a network." Ex. 1001, Abstract.

According to the Specification, "a centralized wireline node refers to a network node providing video or cable television delivery to multiple users using a wireline physical transport between those users at the node." *Id.* at 1:66–2:2. The Specification states that "the problems of speech recognition

at a centralized wireline node in a network supporting video delivery or cable television delivery have not been addressed by [the] prior art.” *Id.* at 1:63–66. The Specification describes a “preferred embodiment [of the claimed invention that uses] a back channel containing a multiplicity of identified speech channels from a multiplicity of user sites presented to a speech processing system at a wireline node in a network that supports at least one of cable television delivery and video delivery.” *Id.* at Abstract. Figure 3 of the ’196 Patent is reproduced below.

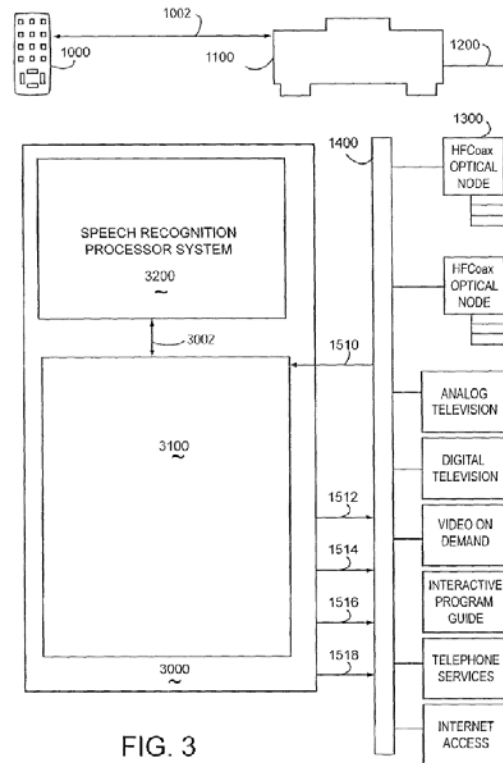


Figure 3 illustrates:

a remote control unit 1000 coupled 1002 to set-top apparatus 1100, communicating via a two-stage wireline communications system containing a wireline physical transport 1200 through a distributor node 1300, and through a high speed physical transport 1400, *possessing various delivery points 1510* and entry points 1512–1518 to a tightly coupled server farm 3000, with one or more gateways 3100, and one or more tightly coupled

server arrays 3200[.]

Ex. 1001, 7:17–25, emphasis added. Server farm 3000 includes a central “speech recognition processor system 3200” for processing speech signals from user sites, such as from subscribers’ set-top boxes. *Id.* at Fig. 3. The Specification further notes that “[t]he back channel is from a multiplicity of user sites and is presented to a speech processing system at the wireline node in the network.” *Id.* at 22:12–14. Specifically, “[t]he speech signal transmitted from a subscriber’s set-top box, or set-top appliance, 1100[,], is received [at the] 1510 [entry points] by the five to 40 MHz data receiving equipment.” *Id.* at 12:21–23, 12:57–58. Figure 10 of the ’196 Patent is reproduced below.

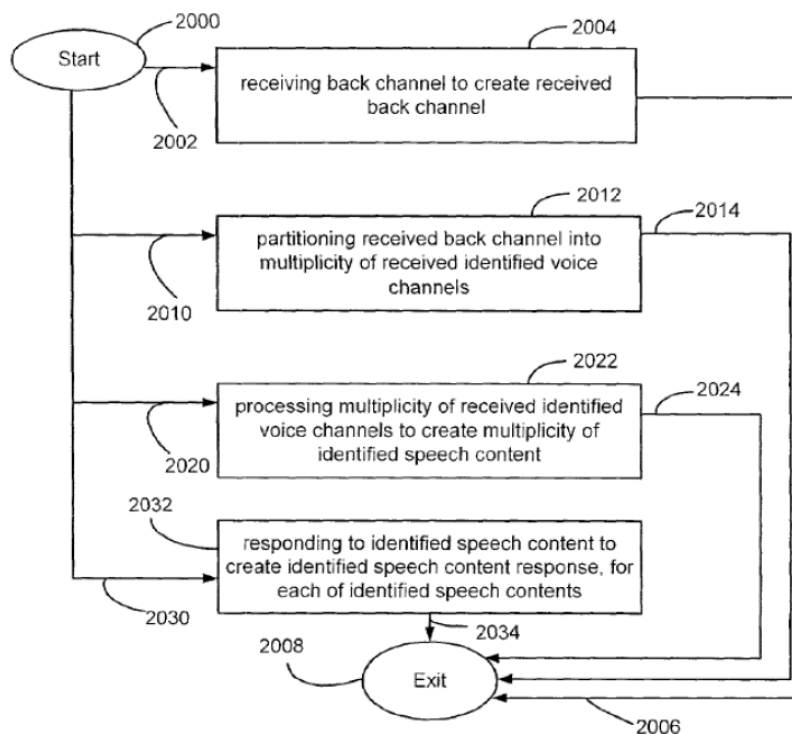


Figure 10 “depicts a flowchart of a method using a back channel from a multiplicity of user sites containing a multiplicity of identified speech channels presented to a speech processing system at a wireline node in a

network supporting cable television delivery in accordance with the invention.” *Id.* at 7:42–46.

C. Challenged Claims

Claims 1 and 27 are independent. Claim 1 is a method claim “of using a back channel containing a multiplicity of identified speech channels from a multiplicity of user sites presented to a speech processing system at a wireline node in a network supporting at least one of cable television delivery and video delivery” (*id.* at 50:62–67), while claim 27 is a system claim directed to a “system supporting speech recognition in a network” (*id.* at 55:9–10). Claims 2, 4–6, 12, and 13 depend directly or indirectly from claim 1, while claims 28, 30–32, and 38–42 depend directly or indirectly from claim 27. Independent claims 1 and 27, reproduced below, are illustrative of the challenged claims.

1. A method of using a back channel containing a multiplicity of identified speech channels from a multiplicity of user sites presented to a speech processing system at a wireline node in a network supporting at least one of cable television delivery and video delivery, comprising the steps of:

receiving said back channel to create a received back channel;

partitioning said received back channel into a multiplicity of received identified speech channels;

processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content; and

responding to said identified speech content to create an identified speech content response that is unique, for each of said multiplicity of identified speech contents.

Ex. 1001, 50:62–51:10.

27. A system supporting speech recognition in a network, said system comprising:

a speech recognition system coupled to a wireline node in said network for receiving a back channel from a multiplicity of user sites coupled to said network, further comprising

a back channel receiver, for receiving said back channel to create a received back channel;

a speech channel partitioner, for partitioning said received back channel into a multiplicity of received identified speech channels; and

a processor network executing a program system comprised of program steps residing in memory accessibly coupled to at least one computer in said processor network;

wherein said program system is comprised of the program steps of:

processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content;

responding to said identified speech content to create an identified speech content response, for each of said multiplicity of said identified speech contents; and

wherein said network supports at least one of the collection comprising: cable television delivery to said multiplicity of user sites; and video delivery to said multiplicity of user sites.

Ex. 1001, 55:9–36.

D. References Relied Upon

Petitioner relies on the following references:

Exhibit	Reference
1010	United States Patent No. 7,013,283 B1, issued March 14, 2006 (“Murdock”).
1012	United States Patent No. 6,513,063 B1, issued January 28, 2003 (“Julia”).
1013	United States Patent No. 6,490,727 B1, issued December 3, 2002 (“Nazarathy”).
1014	United States Patent No. 6,650,624 B1, issued November 18, 2003 (“Quigley”).
1015	United States Patent No. 5,477,262, issued December 19, 1995 (“Banker”).
1016	United States Patent No. 6,314,573 B1, issued November 6, 2001 (“Gordon”).

Pet. 1–2. Petitioner also relies on the Declaration of Christopher Schmandt (Ex. 1019, the “Schmandt Declaration”) and on the Declaration of Jeffrey Lau (Ex. 1018, “Lau Declaration”).

1. Murdock (Ex. 1010)

Murdock describes a “system and a concomitant method for providing programming content in response to an audio signal.” Ex. 1010, Abstract. Figure 1 of Murdock is reproduced below.

FIG. 1

2. *Julia (Ex. 1012)*

Julia describes a “navigation of electronic data by means of spoken natural language requests.” Ex. 1012, 1:16–18. Figure 1a of Julia is reproduced below.

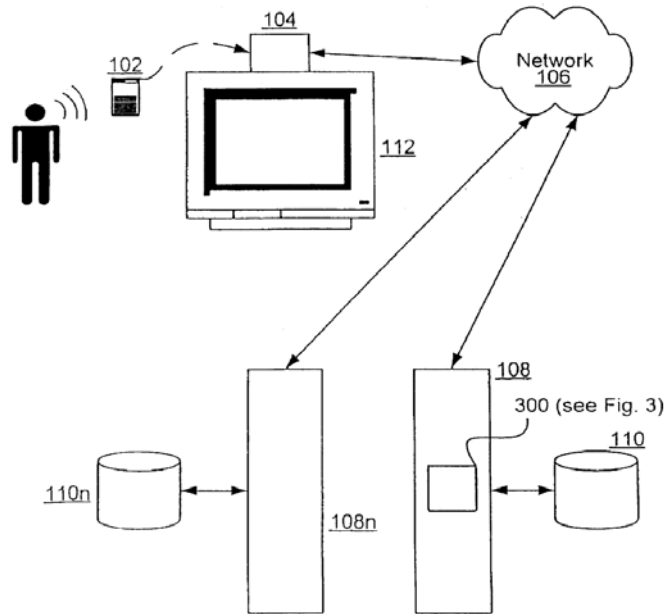


Fig. 1a

Figure 1a “illustrates a system providing a spoken natural language interface for network-based information navigation . . . with server-side processing of requests.” *Id.* at 3:6–9. “[A] user’s voice input data is captured by a voice input device 102, such as a microphone[, which p]referably [] includes a button or the like that can be pressed or held down to activate a listening mode.” *Id.* at 3:39–43. Input device 102 can be also be “a portable remote control device with an integrated microphone, and the voice data is transmitted from device 102 preferably via infrared (or other wireless) link to [a receiver in] communications box 104.” *Id.* at 3:46–52. “The voice data is then transmitted across network 106 to a remote server or servers 108.” *Id.* at 3:54–55. The voice data “is processed by request processing logic 300

in order to understand the user's request and construct an appropriate query or request for navigation of remote data.” *Id.* at 3:61–64. “Once the desired information has been retrieved from data source 110, it is electronically transmitted via network 106 to the user for viewing on client display device 112.” *Id.* at 4:18–20. Communications box 104 is used for “receiving and decoding/formatting the desired electronic information that is received across communications network 106.” *Id.* at 4:27–30. It is “preferabl[e to use] the same [] communications box 104, but [it] may also be a separate unit) for receiving and decoding/formatting the desired electronic information that is received across communications network 106.” *Id.* at 4:25–30.

3. *Nazarathy (Ex. 1013)*

Nazarathy describes “hybrid fiber coaxial cable networks such as [those] used in cable television where two-way digital communications are desired.” Ex. 1013, Abstract. Figure 9 of Nazarathy is reproduced below.

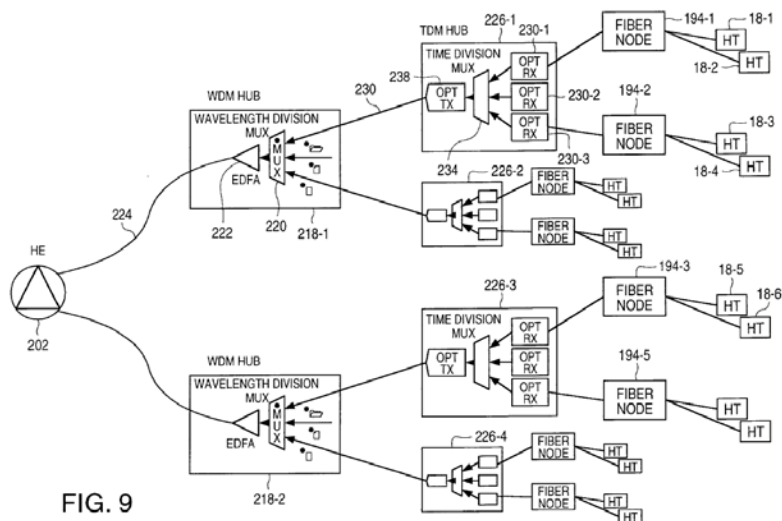


Figure 9 of Nazarathy illustrates a Wavelength Division Multiplexing (“WDM”) and Time Division Multiplexing (“TDM”) network showing how

data from multiple home terminals, 18-1, . . . 18-n, for example, cable modem or set-top box, is transmitted to the cable headend (HE 202). *Id.* at Fig. 9, 1:21–27, 14:6–8. Nazarathy discloses that “[a]ny operations of TDM and/or WDM multiplexing are undone at the [headend, HE202,] by corresponding WDM and TDM demultiplexers.” *Id.* at 14:62–64, 15:40–46.

4. *Quigley (Ex. 1014)*

Quigley describes a “number of features for enhancing the performance of a cable transmission system in which data is transmitted between a cable modem termination system at a headend and a plurality of cable modem located [at] different distances from the headend.” Ex. 1014, Abstract, 1:32–35. Figure 1 of Quigley is reproduced below.

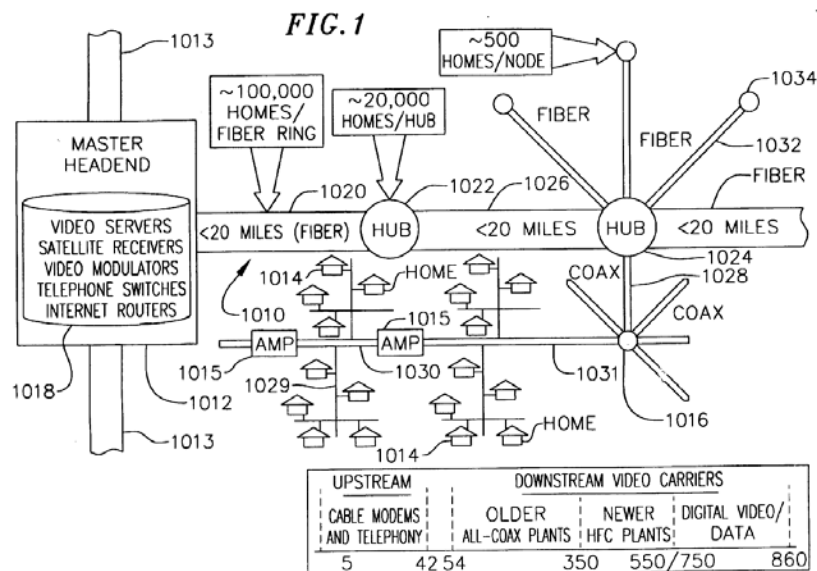
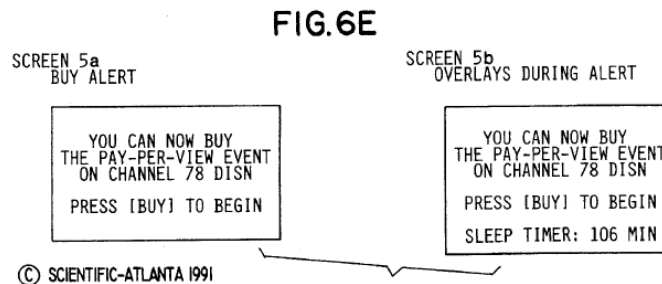


Figure 1 of Quigley “is a schematic diagram of a hybrid fiber coaxial (HFC) network showing typical pathways for data transmission between the headend[,] which contains the cable modem termination system[,] and a plurality of homes[,] each of which contain[s] a cable modem[.]” *Id.* at 3:56–60. In Quigley, “[t]he hybrid fiber coaxial network of a cable modem

system utilizes a point-to-multipoint topology to facilitate communication between the cable modem termination system and the plurality of cable modems.” *Id.* at 9:1–4. “Frequency domain multiple access (FDMA)/time domain multiple access (TDMA) is used to facilitate communication from each cable modem to the cable modem termination system, [*i.e.*], in the upstream direction.” *Id.* at 9:8–12, 48–52. “The upstream channel 491, is divided into a plurality of time intervals 110.” *Id.* at 46:31–34. “The upstream channel 491 is thus partitioned so as to facilitate the definition of time slots, such that each of a plurality of cable modems 12 may transmit data packets to the cable modem termination system 10 without interfering with one another.” *Id.* at 46:34–40.

5. *Banker (Ex. 1015)*

Banker describes an apparatus “for providing a user friendly interface to a subscription television terminal.” Ex. 1015, Abstract. Banker describes a number of user interface features such as “messaging, establishing a favorite channel list, pay-per-view, program timing, and terminal control.” *Id.*; *see also id.* at 4:1–5, 16–18. Figures 6E and 6F of Banker are reproduced below.



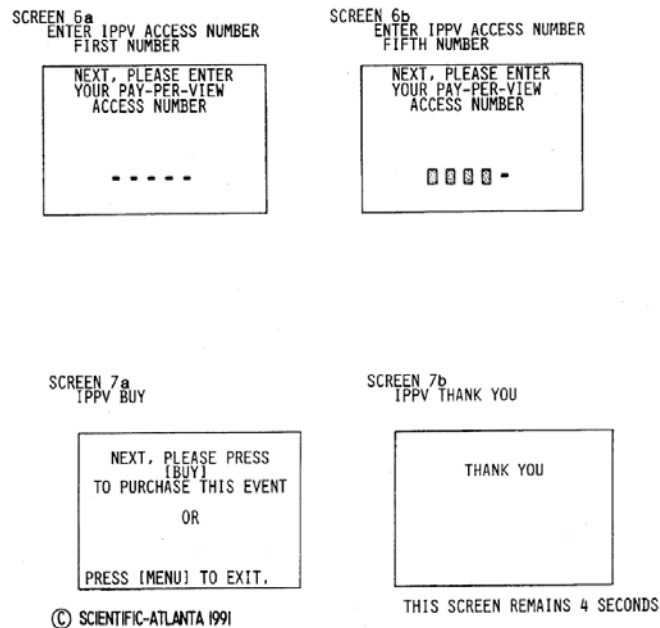


FIG. 6F

Figures 6E and 6F illustrate a sequence of screens a user would navigate through in order to purchase a pay-per-view event. *Id.* at 16:54–17:3. Banker also discussed how customers can be billed for using the subscription television terminal. *See id.* at 7:58–8:3, 12:1–15.

6. *Gordon (Ex. 1016)*

Gordon describes a “method and apparatus for providing subscription-on-demand (SOD) services for a[n] interactive information distribution system, where a consumer may subscribe to packages of on-demand programs for a single price[.]” Ex. 1016, Abstract. Figure 8 of Gordon is reproduced below.

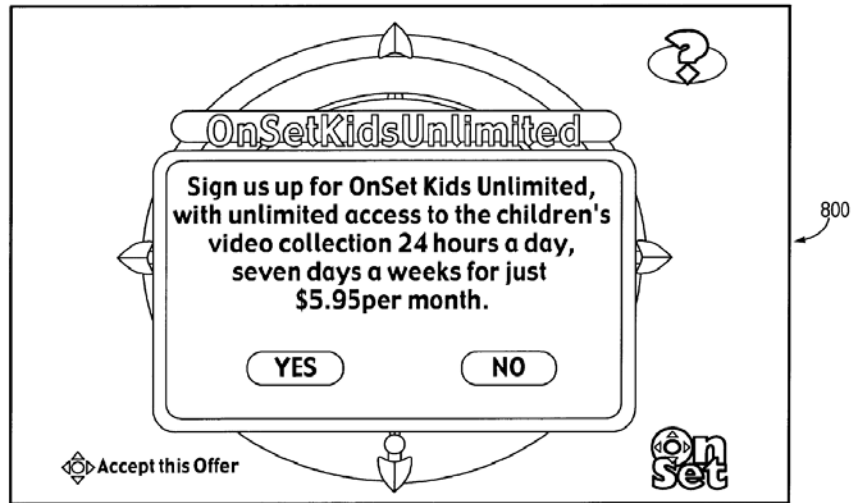


FIG. 8

Figure 8 of Gordon shows “a menu that allows a consumer to subscribe to a selected subscription-on-demand service.” *Id.* at 3:40–41. According to Gordon, “through manipulation of the menus, the consumer [can] select[] a programming package [and] become[] a subscriber to that package and [will be] billed accordingly.” *Id.* at 2:61–63.

E. Asserted Grounds of Unpatentability

Petitioner challenges claims 1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42 of the '196 Patent based on the asserted grounds of unpatentability set forth in the following table. Pet. 3–4, 14–67.

Asserted Grounds		
Reference(s)	Basis	Claims Challenged
Murdock alone	§ 103(a)	1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42
Murdock and Nazarathy or Quigley	§ 103(a)	1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42
Murdock alone or Murdock and Nazarathy or Quigley and Banker or Gordon	§ 103(a)	5, 6, 31, and 32
Julia and Nazarathy or Quigley	§ 103(a)	1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42
Julia and Nazarathy or Quigley and Banker or Gordon	§ 103(a)	5, 6, 31, and 32

For the reasons stated below, we institute an *inter partes* review of claims 1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42 on all grounds set forth in the below table for these claims. *See infra* Section II.C.

II. ANALYSIS

A. *Level of Ordinary Skill in the Art*

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). In that regard, Petitioner and Mr. Schmandt contend that a person of ordinary skill in the relevant art would have:

- (i) an undergraduate degree (or equivalent) in electrical engineering, computer science, or a comparable subject and *at least* three years of professional work experience in the field of multi-media systems including in particular speech recognition and control technologies; or
- (ii) an advanced degree (or equivalent) in electrical engineering, computer science, or a comparable subject and *at least* one year of post-graduate research or work experience in the field of multi-media systems including in particular speech recognition and control technologies.

Pet. 6, emphases added; *see also* Ex. 1019 ¶¶ 75–77. Patent Owner does not propose an alternative definition nor does Patent Owner respond to Petitioner’s proposal. *See generally* Prelim. Resp. Based on the current record, we adopt, with modification (*e.g.*, removal of the words “at least” from Petitioner’s proposed definition), Petitioner’s definition of a person of ordinary skill in the art:

- (i) an undergraduate degree (or equivalent) in electrical engineering, computer science, or a comparable subject and three years of professional work experience in the field of multi-media systems including in particular speech recognition and control technologies; or

(ii) a Master's of Science degree (or equivalent) in electrical engineering, computer science, or a comparable subject and one year of post-graduate research or work experience in the field of multi-media systems including in particular speech recognition and control technologies.

We further note that the prior art in the instant proceeding reflects the level of ordinary skill in the art at the time of the invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). For example, as reflected in *Julia*, a person of ordinary skill in the art would have familiarity with using spoken natural language as input into control systems. *See Ex. 1012*, 1:39–48.

B. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard as the claim construction standard to be applied in an *inter partes* review proceeding). Under the broadest reasonable interpretation standard,² claim terms generally are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

² The parties are given notice that the United States Patent and Trademark Office published a proposed rules package that would change the standard for construing unexpired and proposed amended claims in trials under the America Invents Act. *See* 83 Fed. Reg. 21221 (May 9, 2018) (available at: <https://www.gpo.gov/fdsys/pkg/FR-2018-05-09/pdf/2018-09821.pdf>).

Petitioner proposes constructions for three terms: “wireline node,” “back channel,” and “partitioning said received back channel into a multiplicity of [said] received identified speech channels.” Pet. 6–9. The Patent Owner does not propose alternative constructions nor does Patent Owner respond to Petitioner’s proposals. *See generally* Prelim. Resp. Based on our review of the record before us, we determine that no claim terms require express construction at this stage of the proceeding to resolve the controversy regarding whether Petitioner has shown a reasonable likelihood to prevail regarding the unpatentability of the challenged claims. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017); *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (holding that only claim terms that “are in controversy” need to be construed and “only to the extent necessary to resolve the controversy”).

C. Requirements for Specificity and Particularity

Patent Owner contends that the “[P]etition fails to present clear grounds of unpatentability [because the asserted grounds] identif[y] all but one of its challenges to the claims using the word ‘or’ between disparate references within each ground.” Prelim. Resp. 6. According to Patent Owner, “[t]his ambiguous language fails to articulate exactly which reference is relied upon for each feature in the ‘four’ asserted grounds beyond the Murdock-by-itself ground.” *Id.* We have reviewed the record and, on the record before us, are persuaded that Petitioner has identified its asserted grounds sufficiently. For example, for independent claims 1 and 27, we understand from the Petition and the Schmandt Declaration that the

Petitioner, in addition to asserting that Murdock (Pet. 14–20, 26–29) alone renders independent claims 1 and 27 obvious, is also contending that Murdock can be combined with Nazarathy or Quigley for the “partitioning said received back channel into a multiplicity of received identified speech channels” limitation in claim 1 and the “a speech channel partitioner, for partitioning said received back channel into a multiplicity of received identified speech channels” limitation in claim 27. *See, e.g.*, Pet. 17–19, 27. Moreover, Patent Owner’s argument regarding the lack of specificity is itself lacking in specificity. *See* Prelim. Resp. 6–9. We agree, however, with Patent Owner that the Petition effectively challenges more than five grounds but disagree with Patent Owner regarding what those grounds are. Prelim. Resp. 7–8. We understand the Petition is effectively asserting these 13 grounds:

Ground	Reference(s)	Basis ³	Claims Challenged
Obviousness Grounds involving Murdock			
1	Murdock alone	§ 103(a)	1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42
2	Murdock and Nazarathy	§ 103(a)	1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42

³ The relevant section of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, took effect on March 16, 2013. Because the application from which the ’196 Patent issued was filed before that date, the pre-AIA statutory framework applies.

Ground	Reference(s)	Basis³	Claims Challenged
3	Murdock and Quigley	§ 103(a)	1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42
4	Murdock, Nazarathy, and Banker	§ 103(a)	5, 6, 31, and 32
5	Murdock, Nazarathy, and Gordon	§ 103(a)	5, 6, 31, and 32
6	Murdock, Quigley, and Banker	§ 103(a)	5, 6, 31, and 32
7	Murdock, Quigley, and Gordon	§ 103(a)	5, 6, 31, and 32
Obviousness Grounds involving Julia			
8	Julia and Nazarathy	§ 103(a)	1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42
9	Julia and Quigley	§ 103(a)	1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42
10	Julia, Nazarathy, and Banker	§ 103(a)	5, 6, 31, and 32
11	Julia, Nazarathy, and Gordon	§ 103(a)	5, 6, 31, and 32
12	Julia, Quigley, and Banker	§ 103(a)	5, 6, 31, and 32
13	Julia, Quigley, and Gordon	§ 103(a)	5, 6, 31, and 32

D. Obviousness

1. General Principles

A claim is unpatentable under § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a

person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective indicia of non-obviousness (*i.e.*, secondary considerations).⁴ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

An invention “composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Rather, to establish obviousness, it is petitioner’s “burden to demonstrate both that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1381 (Fed. Cir. 2016) (quotations omitted); *see KSR*, 550 U.S. at 418. Moreover, a petitioner cannot satisfy this burden by “employ[ing] mere conclusory statements” and “must instead articulate specific reasoning, based on evidence of record” to support an obviousness determination. *Magnum Oil*, 829 F.3d at 1380. Stated differently, there must be “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). The “factual inquiry” into the reasons for “combin[ing] references must be thorough and searching, and [t]he need for specificity

⁴ Patent Owner, at this stage of the proceeding, has not presented evidence of secondary considerations.

pervades” *In re Nuvasive, Inc.*, 842 F.3d 1376, 1381–82 (Fed. Cir. 2016) (quotations omitted). We analyze the asserted grounds with these principles in mind.

2. *Graham Analysis Generally*

Patent Owner contends that “Petitioner fails to establish a reasonable likelihood of success for each of the challenged claims because, for each of its grounds, it fails to present a proper *Graham* analysis by not addressing any differences between the claimed subject matter and the prior art.” Prelim. Resp. 19–23. We have reviewed the record and are persuaded that Petitioner has sufficiently set forth alleged differences between the claimed invention and the prior art. For example, for the limitation “partitioning said received back channel into a multiplicity of received identified speech channels” in claim 1, Petitioner notes that:

In Murdock, back channel 134 carries the voice command signals from “a plurality of local processing units” from multiple different users. . . . Speech recognition processing is performed by the remote server computer. As Murdock explains, the “remote server computer 130 performs the speech recognition by identifying and recognizing the user that generated the audio signal and determining the requested programming content contained in the audio signal.” . . . In order to identify each users’ voice command signal, the remote server computer would demultiplex the multiplexed signal on back channel 134, as a person of ordinary skill in the art would have known. Schmandt Decl. ¶ 145. . . .

A person of ordinary skill in the art would have known, based on general experience in the field, that Murdock’s multiplexed back channel signal must be demultiplexed. Schmandt Dec. ¶¶ 144–145. In addition, such a person could also combine the disclosure in Murdock with various prior art techniques for demultiplexing a multiplexed communication signal at a cable headend. *Id.* ¶¶ 148–151.

Pet. 17–19 (citing Ex. 1019 ¶¶ 144–151; Ex. 1001, 3:1–12, 15–17, 28–31).

Therefore, according to the Petitioner, while Murdock discloses back channel 134 carrying voice command signals from multiple different users, it does not explicitly disclose the claimed “*partitioning said received back channel into a multiplicity of received identified speech channels.*”

Ex. 1001, 51:3–4, emphases added. However, Petitioner and its expert contend that because “remote server computer 130 performs the speech recognition by identifying and recognizing the user that generated the audio signal,” it would have been obvious to a person of ordinary skill in the art that remote server computer 130 would have to demultiplex the multiplexed signal on back channel 134, in order to identify each users’ voice command signal. Pet. 17–18; Ex. 1019 ¶¶ 144–146. Hence, based on the record before us, we are persuaded that Petitioner has sufficiently shown on the record before us how it has conducted a *Graham* analysis.

3. *Obviousness Grounds Involving Murdock (Grounds 1–7)*

The ’196 Patent issued from an application that has a filing date of February 16, 2001, and that claims the benefit of priority to a provisional application with a filing date of June 8, 2000. Ex. 1001, at [22], [60]; Pet. 4. Petitioner relies on Murdock for a number of asserted grounds. Murdock was filed, on November 16, 2000, after the effective filing date of the ’196 Patent, but claims the benefit of priority to the filing date of Provisional Application No. 60/166 010 (Ex. 1011, the “Murdock Provisional”), which was filed on November 17, 1999. Ex. 1010, at [22], [60]. Petitioner argues that Murdock is 35 U.S.C. § 102(e) prior art to the ’196 Patent because Murdock is entitled to the benefit of priority to the filing date of the Murdock Provisional. Pet. 10.

In *Ex Parte Mann*, the Board held that “under *Dynamic Drinkware*, a non-provisional child can be entitled to the benefit of a provisional application’s filing date if the provisional application provides sufficient support for at least one claim in the child.” 2016 WL 7487271, at *6 (PTAB Dec. 21, 2016) (discussing whether *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378, requires “support in the provisional [] for *all* claims, *any* claim, or something in between.”). The Board further held that “the [party claiming priority] also must [also] show that the subject matter relied upon in the non-provisional is sufficiently supported in the provisional application [and that t]his subject matter test is in addition to the comparison of claims required by *Dynamic Drinkware*.” *Id.* at *5.

Recognizing these requirements, Petitioner asserts that:

Petitioner’s expert Christopher Schmandt shows in his supporting declaration that at least claim 1 of Murdock is supported by the disclosure in the [Murdock P]rovisional application. Schmandt Decl. ¶¶ 99–113. In addition, Petitioner’s expert witness confirms that the Murdock [P]rovisional application meets this requirement, too. Schmandt Decl. ¶¶ 135–293 (showing that the provisional application discloses the challenged claims and also showing that the provisional application discloses the same subject matter); . . .

Pet. 10. Patent Owner, however, contends that “Petitioner fails to establish that Murdock is prior art and thus cannot establish a reasonable likelihood of prevailing on the Murdock grounds” because “the [P]etition omits the analysis . . . necessary to establish Murdock as prior art, and instead relies on bare conclusions lacking any factual support that could sustain its position.”

Prelim. Resp. 17. According to Patent Owner, Petitioner’s “attempt[s] to incorporate more than 150 paragraphs of essential analysis from the

declaration into the [P]etition, particularly when the [P]etition was only twenty words under the word limit, is improper.” *Id.* at 16.

We agree with Patent Owner that Petitioner’s barebones analysis, in its Petition, is insufficient to support its contention that Murdock is entitled to the filing date of the Murdock Provisional. Specifically, while there is no requirement to rewrite every word or example from an expert declaration into a petition, Petitioner’s two sentences concluding that “at least claim 1 of Murdock is supported by the disclosure in the [Murdock P]rovisional application” and that “the [Murdock P]rovisional [] provide[s] support for the subject matter relied upon,” are insufficient to establish Murdock as prior art. “Arguments must not be incorporated by reference from one document into another document.” 37 C.F.R. § 42.6(a)(3). Here, the Petitioner cites to over 170 paragraphs (Ex. 1019 ¶¶ 99–113, 135–293), spanning more than 80 pages in the Schmandt Declaration. No reasonable application of 37 C.F.R. § 42.6(a)(3) to the circumstance of this case results in a conclusion that Petitioner complied with the rule.

Accordingly, we disregard all the material improperly incorporated by reference for this issue, which is paragraphs 99 to 113 and 135 to 293 of the Schmandt Declaration, and Petitioner is left with only two conclusory and general sentences in the Petition with respect to why at least one claim of Murdock is supported by the disclosure of the Murdock Provisional and how the Murdock Provisional provides support for the subject matter relied upon.

Based on the current record, Petitioner has, therefore, not shown that Murdock is entitled to the benefit of priority to the filing date of the Murdock Provisional. Hence, Petitioner has not shown that Murdock is prior art to the ’196 Patent. Because each of the Murdock asserted grounds

relies on Murdock in whole or in part, we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in showing unpatentability of claims 1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42 over (1) Murdock; (2) Murdock and Nazarathy; or (3) Murdock and Quigley, or of claims 5, 6, 31, and 32 over (4) Murdock, Nazarathy, and Banker; (5) Murdock, Nazarathy, and Gordon; (6) Murdock, Quigley, and Banker; or (7) Murdock, Quigley, and Gordon.⁵

4. *Obviousness Grounds Involving Julia (Grounds 8–13)*

a. *Claims 1, 2, 4, 12, 13, 27, 28, 30, and 38–42*

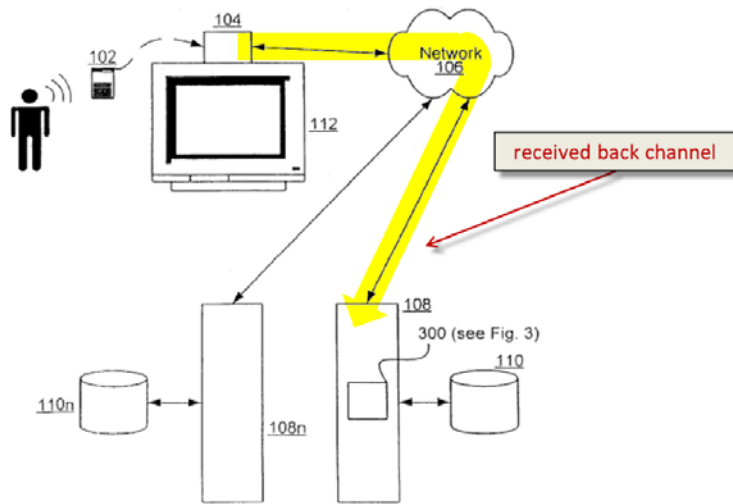
Petitioner contends that claims 1, 2, 4, 12, 13, 27, 28, 30, and 38–42 are unpatentable over Julia in view of Nazarathy (Ground 8) or Julia in view of Quigley (Ground 9) under 35 U.S.C. § 103(a), relying on the supporting testimony of Mr. Schmandt. Pet. 42–61 (citing Ex. 1019). We have reviewed the Petition, the Schmandt Declaration, the evidence cited, and the Preliminary Response regarding these claims and are persuaded that Petitioner has established a reasonable likelihood that it would prevail in showing unpatentability of these claims challenged under these grounds.

For example, with respect to independent claim 1, addressed in the Petition at pages 43 to 48, Petitioner, notwithstanding Patent Owner’s arguments, has made a sufficient showing of unpatentability of this claim challenged under the asserted Julia in view of Nazarathy or Julia in view of Quigley grounds. Specifically, the preamble of claim 1 recites: “A method of using a back channel containing a multiplicity of identified speech

⁵ Nevertheless, we institute an *inter partes* review of *all* challenged claims (1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42) of the ’196 Patent based on these Murdock Grounds (1–7). *See* SAS Guidance.

channels from a multiplicity of user sites presented to a speech processing system at a wireline node in a network supporting at least one of cable television delivery and video delivery.” Ex. 1001, 50:62–67. Petitioner, citing to various portions of Julia and the testimony of Mr. Schmandt, explains that “Julia discloses a voice control system that can be implemented in an interactive cable television network,” whereby “[m]ultiple users can issue voice commands requesting television and other video content from a remote server computer (e.g., “a wireline node”).” Pet. 43. Petitioner also points out that the “remote server [also] performs speech recognition processing to identify the spoken request and then sends the requested content to the particular user.” *Id.* at 43–44. We are sufficiently persuaded that Julia discloses a method of using a back channel containing a multiplicity of identified speech channels from a multiplicity of user sites presented to a speech processing system at a wireline node in a network supporting at least one of cable television delivery and video delivery.

Claim 1 further recites “receiving said back channel to create a received back channel.” Ex. 1001, 51:1–2. Petitioner relies on the annotated version of Figure 1a of Julia as reproduced below.



Julia Fig. 1a (annotated)

Petitioner’s annotated Figure 1a of Julia (Pet. 45) graphically demonstrates how Petitioner maps the claimed limitation to Julia. *See id.* at 44–45. According to Petitioner, a viewer in Julia issues a voice command using voice input device 102, which is transmitted to remote server 108 via communications box 104. Pet. 44. Petitioner notes that network 106 is a two-way electronic communications network and that “multiple users[] each having their own input device can issue voice commands for processing by the central server.” *Id.* Petitioner further notes that while Julia does not explicitly disclose a back channel, “[a] person of ordinary skill in the art would have known that upstream data transmissions in the cable television network disclosed Julia are transmitted on the ‘back channel’ (i.e., ‘upstream communication channel delivering signals from multiple user sites to a central wireline node’).” *Id.* (citing Ex. 1019 ¶¶ 307, 311). Petitioner, also cites to discussions of the state of the art in Nazarathy and Quigley, to show that “upstream data transmissions,” in an interactive cable network, are referred to as “back channels” in the art. *Id.* at 44–45 (citing Ex. 1013, 2:8–35, 9:54–65; Ex. 1014, Abstract, 9:1–10:37). Petitioner has, therefore, made

a sufficient showing that Julia discloses the claimed step of “receiving said back channel to create a received back channel.”

Claim 1 further recites “partitioning said received back channel into a multiplicity of received identified speech channels.” Ex. 1001, 51:3–4. Petitioner first notes that Julia discloses that multiple users may issue requests in its system and also that support for simultaneous access requests from multiple network users is well known in the art. Pet. 45–46. Petitioner further notes that while Julia does not explicitly teach “partitioning” the back channel into a multiplicity of received identified speech channels, both Nazarathy and Quigley “disclose techniques for ‘partitioning’ an upstream data channel carrying multiple user signals at a cable headend” and it would have been obvious to one of ordinary skill in the art to combine Julia with Nazarathy (Ground 8) or Julia with Quigley (Ground 9). Pet. 44–47, 60–61; *see also* Ex. 1019 ¶¶ 440–445.

Patent Owner, however, contends that:

Petitioner’s combinations of references are facially deficient because the [P]etition fails to articulate a motivation to combine the features of the prior art to yield the claimed invention. [Specifically, t]he entirety of the [P]etition’s discussion of a motivation to combine . . . Julia with Nazarathy or Quigley[] falls within a mere three paragraphs of each ground.

Prelim. Resp. 23–26.

We have reviewed the Petition, the Schmandt Declaration, and the Preliminary Response regarding this issue and, based on this record, are persuaded that Petitioner has established that one of ordinary skill in the art would have been motivated to combine Julia with Nazarathy (Ground 8) or Julia with Quigley (Ground 9) for this limitation. According to Petitioner, while Julia teaches receiving voice commands from multiple users or

devices at a back channel, it does not explicitly teach “partitioning” the back channel into a multiplicity of received identified speech channels. Pet. 44–46. However, both Nazarathy and Quigley “disclose techniques for ‘partitioning’ an upstream data channel carrying multiple user signals at a cable headend” and it would have been obvious to one of ordinary skill in the art to combine Julia with Nazarathy or Julia with Quigley. Pet. 46–47, 60–61; *see also* Ex. 1019 ¶¶ 440–445. This is because “[a] person of ordinary skill in the art would have naturally considered Nazarathy and Quigley in connection with the system disclosed by Julia.” Pet. 60–61; Ex. 1019 ¶ 439.

Petitioner’s expert elaborates on the reasons as follows:

Julia, Nazarathy, and Quigley disclose inventions for use in two-way transmission of data over cable networks. For example, Julia, Nazarathy, and Quigley describe transmission of data in cable networks made up of the same types of physical media. . . . the networked systems of Nazarathy and Quigley are designed to be used in the very same network infrastructure [that is] disclosed by Julia.

. . . Further, Julia, Nazarathy, and Quigley describe systems requiring bidirectional communication between a central node (like a headend or a remote server) and multiple, distributed user units. . . . Nazarathy and Quigley thus disclose methods for communications that fit directly into the communication needs of Julia.

. . . Julia, Nazarathy, and Quigley are also similar in that all three describe transmitting media content in the downstream direction. . . . Nazarathy and Quigley thus disclose methods for communications that fit directly into the communication needs of Julia.

. . . Julia, Nazarathy, and Quigley are also similar in that all three describe transmitting media content in the downstream direction. . . . Nazarathy and Quigley also provide additional details for

implementing bi-directional communication systems for cable networks that fit directly into, but are not expressly described, by Julia. [For example,] Nazarathy and Quigley disclose details for multiplexing / demultiplexing signals, which can be implemented in Julia to support receiving and processing simultaneous user requests. A person of ordinary skill in the art, looking for further details regarding how to implement Julia to support simultaneous requests, would thus naturally consider the teachings of Nazarathy and Quigley because they disclose methods for bi-directional communication that fit directly into the communication needs of Julia.

Ex. 1019 ¶¶ 440–443 (citing and quoting various portions of Julia (Ex. 1012), Nazarathy (Ex. 1013), and Quigley (Ex. 1014)). Therefore, we agree with Petitioner and its expert that “[a] person of ordinary skill in the art would have naturally considered Nazarathy and Quigley in connection with the system disclosed by Julia” and “would [also] have known that Julia’s voice control system could be implemented using those techniques and networks” taught in Nazarathy or Quigley. Pet. 61; Ex. 1019 ¶¶ 439, 443; *see also id.* ¶ 445 (explaining why the combination “would have been no more than combining prior art elements according to known methods to yield predictable results.”).

We also agree with Petitioner that “a person of ordinary skill in the art would also have recognized the benefits of combining Julia with the teachings of Nazarathy [or Julia with the teachings of] Quigley.” Pet. 61. Specifically, according to Petitioner:

The Julia network would reap the benefits of Nazarathy (e.g., increased bandwidth) or Quigley (e.g., avoiding collisions between multiple upstream signals)[, and i]mplementing Julia’s voice control system on the networks of Nazarathy or Quigley would [also] improve the user interface for those systems. Combining them would have been no more than . . . combining prior art elements according to known methods to yield

predictable results for a person of ordinary skill in the art. . . . Additionally, Julia's disclosure of multiple cable subscribers accessing a central remote server (i.e., cable headend) suggests techniques like those disclosed in Nazarathy or Quigley.

Pet. 61; *see* Ex. 1019 ¶ 444 (further elaborating on benefits of the combined system).

Therefore, we are sufficiently persuaded that the combination of Julia and Nazarathy (Ground 8) or Julia and Quigley (Ground 9) discloses the claimed step of “partitioning said received back channel into a multiplicity of received identified speech channels.”

Claim 1 further recites “processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content.” Ex. 1001, 51:5–7. Petitioner points to Julia, which states that “[a]t remote server 108, the voice data is processed by request processing logic 300 in order to understand the user's request and construct an appropriate query or request for navigation of remote data source 110”

Pet. 47 (quoting Ex. 1001, 3:61–65). The request processing logic 300 of Julia is shown in Figure 3, which is reproduced below.

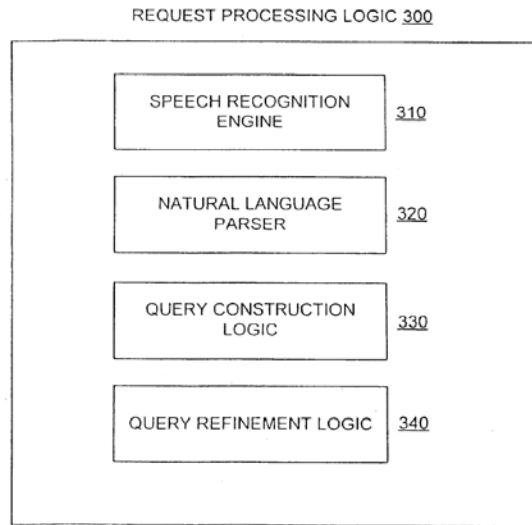


Fig. 3

Figure 3 “illustrates the functional logic components of a request processing module in accordance with an embodiment of” the claimed invention in Julia. Ex. 1012, 3:19–21. Petitioner’s expert explains that figures 4 and 5 of Julia provides “an overview of how user commands are processed in Julia.” Ex. 1019 ¶ 323. Figures 4 and 5 of Julia are reproduced below.

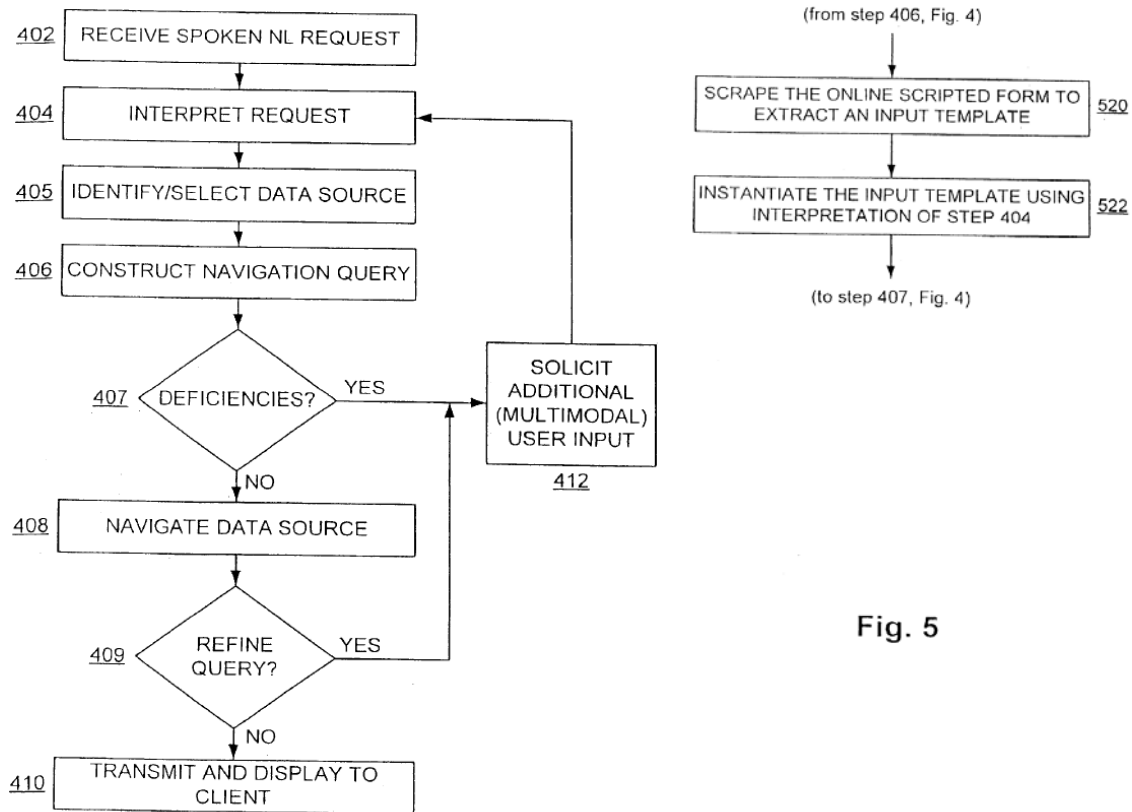


Fig. 4

Fig. 5

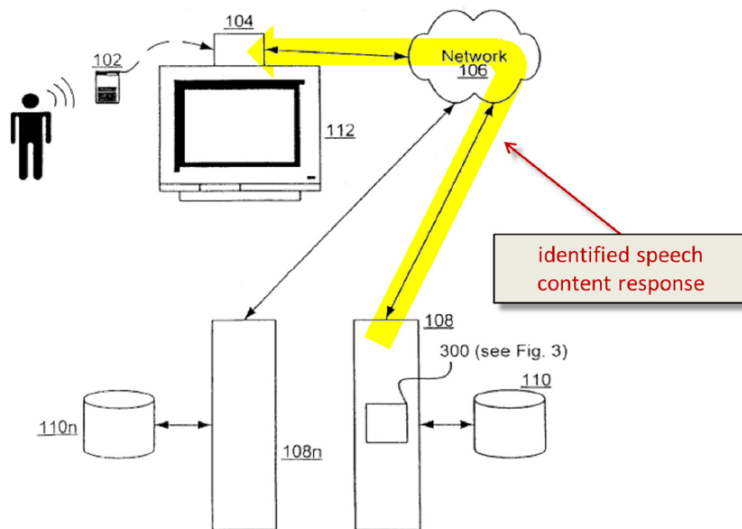
Figure 4 “illustrates a process utilizing spoken natural language for navigating an electronic database” and Figure 5 “illustrates a process for constructing a navigational query for accessing an online data source via an interactive, scripted (e.g., CGI) form.” Ex. 1012, 3:22–27; *see* Ex. 1019 ¶¶ 324–327 (explaining the steps in Figures 4 and 5). Petitioner has, therefore, made a sufficient showing that Julia discloses the claimed step of “processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content.”

Claim 1 further recites “responding to said identified speech content to create an identified speech content response that is unique, for each of said multiplicity of identified speech contents.” Ex. 1001, 51:8–10.

Petitioner's expert explains that:

the remote server “responds” to the identified speech content by retrieving the requested programming content and transmitting it to the particular viewer who requested the particular content. Thus, Julia responds to the voice data requesting content from each user by creating “an identified speech content response” (requested programming content) that is “unique” in that it responds to the specific spoken request of a particular viewer.

Ex. 1019 ¶ 330. Petitioner further relies on the annotated version of Figure 1a of Julia as reproduced below.



Julia Fig. 1 (annotated)

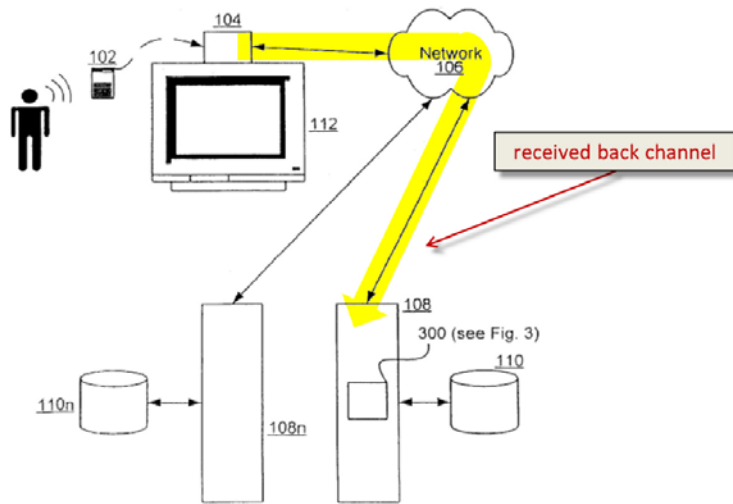
Petitioner's annotated Figure 1a of Julia (Pet. 48) graphically demonstrates how, after the requested programming content is identified, “[t]he retrieved information is transmitted across the network and presented to the user on a suitable client display device.” *Id.* at 47 (quoting Ex. 1001, 2:65–67). We are sufficiently persuaded that Julia discloses the step of “responding to said identified speech content to create an identified speech content response that is unique, for each of said multiplicity of identified speech contents.”

Therefore, for the foregoing reasons, Petitioner has shown a reasonable

likelihood that it would prevail in establishing that claim 1 is unpatentable as obvious over Julia in view of Nazarathy or Julia in view of Quigley.

As another example, with respect to independent claim 27, addressed in the Petition at pages 53 to 56, Petitioner, has also made a sufficient showing of unpatentability of this claim challenged under the asserted Julia in view of Nazarathy or Julia in view of Quigley grounds. Claim 27 recites “[a] system supporting speech recognition in a network, said system comprising.” Ex. 1001, 55:9–10. Petitioner refers to its discussion of the preamble of claim 1 and its expert’s testimony for the preamble of claim 27. Pet. 53. Petitioner’s expert, citing to various portions of Julia, explains that Julia “discloses a system supporting speech recognition in a network as claimed in claim 27.” Ex. 1019 ¶ 371 (citing Ex. 1012, Fig. 1a, 2:27–34, 3:49–55, 61–64, 4:18–20, 31–35, 6:12–26, 11:60–67). Specifically, Mr. Schmandt explains that “remote server 108 containing processing logic 300 is [] a ‘system supporting speech recognition in a network’ as the preamble of claim 27 requires.” *Id.* We are sufficiently persuaded that Julia discloses a system supporting speech recognition in a network.

Claim 27 further recites “a speech recognition system coupled to a wireline node in said network for receiving a back channel from a multiplicity of user sites coupled to said network.” Ex. 1001, 55:11–14. Petitioner states that in Julia, “speech recognition processing is performed by remote server 108, which constitutes ‘a wireline node’ in the network.” Pet. 53. Petitioner’s expert relies on the annotated version of Figure 1a of Julia as reproduced below.



Julia Fig. 1a (annotated)

The annotated Figure 1a of Julia (Ex. 1019 ¶ 373) graphically demonstrates how Petitioner and its expert map the claimed limitation to Julia. *See id.*

¶¶ 373–375. According to Mr. Schmandt, “remote server 108 is also a ‘wireline node’ as that term is used in the ’196 Patent because it is [] ‘a network node providing video or cable television delivery to multiple users over physical wires between the node and the multiple user locations.’”

Id. ¶ 373; *see also id.* ¶¶ 80–81. Petitioner’s expert explains that:

For example, the network server 108 delivers videos to users over network 106. Julia at 11:60–65 (example of delivering the movie *Unforgiven* to a user) (Ex. 1012). As shown in Fig. 1a[, reproduced above], network 106 connects the network server 108 with the client display devices 112, and may be embodied in cable television lines, fiber-optic cable, or other types of “hardwired” (i.e., physical) connections. Julia at 4:31–35. . . . The remote server 108 is also connected with multiple users. Julia at 6:12–26. The network server 108 is thus a “wireline node,” as that term is used in the ’196 Patent, that is “in a network supporting at least one of cable television delivery and video delivery,” as recited in the claim.

Ex. 1019 ¶ 373.

Petitioner also refers to its analysis of “receiving said back channel to create a received back channel” for claim 1 for “receiving a back channel from a multiplicity of user sites coupled to said network” in claim 27. Pet. 53. Petitioner’s expert further cites to various portions of Julia to explain how “Julia also discloses that the back channel *is from a multiplicity of user sites coupled to the network.*” Ex. 1019 ¶ 375, emphasis added (citing Ex. 1012, 2:8, 3:49–54, 4:18–19). According to Mr. Schmandt, because a communications box is located at a particular user site and because there are multiple communications boxes connected to a cable television network, “the back channel is [therefore] from ‘a multiplicity of user sites coupled to the network’ as recited in claim 27.” *Id.* Petitioner has, therefore, made a sufficient showing that the combination of Julia and Nazarathy or Julia and Quigley teach “a speech recognition system coupled to a wireline node in said network for receiving a back channel from a multiplicity of user sites coupled to said network.”

Claim 27 further recites “a back channel receiver, for receiving said back channel to create a received back channel.” Ex. 1001, 55:15–16. Petitioner and its expert refer to remote server 108 as “a back channel receiver” and further refer to their analysis for claim 1 for “receiving said back channel to create a received back channel.” Pet. 54; Ex. 1019 ¶ 377. We are sufficiently persuaded that Julia discloses “a back channel receiver, for receiving said back channel to create a received back channel.”

Claim 27 further recites “a speech channel partitioner, for partitioning said received back channel into a multiplicity of received identified speech channels.” Ex. 1001, 55:17–19. Petitioner and its expert refer to remote server 108 as “a speech channel partitioner” and further refer to their

analysis for claim 1 for “partitioning said received back channel into a multiplicity of received identified speech channel.” Pet. 54; Ex. 1019 ¶¶ 379–380. Petitioner has, therefore, made a sufficient showing that Julia discloses “a speech channel partitioner, for partitioning said received back channel into a multiplicity of received identified speech channels.”

Claim 27 further recites “a processor network executing a program system comprised of program steps residing in memory accessibly coupled to at least one computer in said processor network.” Ex. 1001, 55:20–23. Petitioner, citing to various portions of Julia and the testimony of its expert, explains that Julia teaches programs that would reside in the memory of remote server 108:

Julia’s remote server performs speech recognition by executing “request processing logic 300 which is composed of “functional modules including speech recognition engine 310” Julia at 3:66–4:4. Julia states that “[a] variety of commercial quality, speech recognition engines are readily available on the market, as practitioners will know[,]” including products from Nuance and IBM. *Id.* at 7:12–22. A person of ordinary skill in the art would have known that these type of products include software that would reside “in memory accessibly coupled to at least one computer” (i.e., remote server 108). Schmandt Decl. ¶ 384; *see also* Julia at 6:47–59.

Pet. 55; Ex. 1019 ¶¶ 383–384 (stating that “[a] person of ordinary skill in the art understands that processing logic 300, in addition to all of its components, must necessarily ‘reside’ on memory ‘accessibly coupled’ to the remote server 108.”). Petitioner also points out that “Julia [] discloses ‘a processor network’ of multiple server computers . . . [t]hus Julia discloses ‘executing a program system’ that resides ‘in memory’ on the remote server[,] which is ‘at least one computer’ in the ‘processor network.’”

Pet. 55; Ex. 1019 ¶¶ 382–386. We are sufficiently persuaded that Julia

teaches “a processor network executing a program system comprised of program steps residing in memory accessibly coupled to at least one computer in said processor network.”

Claim 27 further recites “wherein said program system is comprised of the program steps of: processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content.” Ex. 1001, 55:24–28. Petitioner and its expert refer to their analysis of the “processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content” step for claim 1. Pet. 55; Ex. 1019 ¶ 388. Petitioner has made a sufficient showing that Julia discloses “wherein said program system is comprised of the program steps of: processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content.”

Claim 27 further recites “responding to said identified speech content to create an identified speech content response, for each of said multiplicity of said identified speech contents.” Ex. 1001, 55:29–31. Petitioner and its expert refer to their analysis of the “responding to said identified speech content to create an identified speech content response that is unique, for each of said multiplicity of identified speech contents” step for claim 1. Pet. 56; Ex. 1019 ¶ 390. We are sufficiently persuaded that Julia discloses “responding to said identified speech content to create an identified speech content response, for each of said multiplicity of said identified speech contents.”

Claim 27 further recites “wherein said network supports at least one of the collection comprising: cable television delivery to said multiplicity of user sites; and video delivery to said multiplicity of user sites.” Ex. 1001,

55:32–35. Petitioner, citing to various portions in Julia, states that “Julia discloses delivering both cable television programs and videos to multiple user sites.” Pet. 56 (citing Ex. 1012, 4:31–35, 6:12–26, 10:9–18, 10:44–55, 11:16–45); Ex. 1019 ¶ 392. Petitioner has made a sufficient showing that Julia discloses “wherein said network supports at least one of the collection comprising: cable television delivery to said multiplicity of user sites; and video delivery to said multiplicity of user sites.” Therefore, for the foregoing reasons, Petitioner has shown a reasonable likelihood that it would prevail in establishing that claim 27 is unpatentable as obvious over (8) Julia in view of Nazarathy or (9) Julia in view of Quigley.

b. Claims 5, 6, 31, and 32

Both dependent claims 5 and 6 depend indirectly on independent claim 1 and both dependent claims 31 and 32 depend indirectly on independent claim 27. Dependent claim 5 recites, in part, “assessing said speech content response identified as to said user site *to create a financial consequence* identified as to said user site.” Ex. 1001, 51:59–62, emphasis added. Dependent claim 31 contains an identical limitation. *Id.* at 56:21–23. Dependent claims 6 and 21 each recite a similar limitation: “assessing said speech response to create a financial consequence identified with said user site.” *Id.* at 52:1–2, 56:30–31.

Petitioner contends that the limitations of claims 5, 6, 31, and 32 are disclosed: either by: Julia combined with Nazarathy (Ground 8); Julia combined with Quigley (Ground 9); Julia combined with Nazarathy and Banker (Ground 10); Julia combined with Nazarathy and Gordon (Ground 11); Julia combined with Quigley and Banker (Ground 12); or Julia combined with Quigley and Banker (Ground 13). Pet. 61–62.

With regard to the combination of Julia with Nazarathy (Ground 8) or Julia with Quigley (Ground 9), for the “create a financial consequence” limitation of claims 5, 6, 31, and 32, Petitioner states that:

Julia discloses this limitation. Schmandt Decl. ¶ 345. In particular, Julia discloses that its system can be implemented on video on-demand systems, such as the “Diva Systems video-on-demand system.” Julia at 1:30–43, 3:61–4:17, 6:47–59. A person of ordinary skill in the art knows that the Diva System provided pay-per-view functionality. Schmandt Decl. ¶ 345. Thus, Julia discloses to one of ordinary skill in the art requesting pay-per-view or video-on-demand content by issuing voice requests, which the system would process, and providing responsive content. *A person of ordinary skill would also understand that pay-per-view and video-on-demand functionality, such as that provided by the Diva system, would require a purchase, resulting in a bill. Id.*

Pet. 61–63, emphasis added; *see id.* at 64–65 (discussing claims 6, 31, and 32). According to Petitioner’s expert, “[a] person of ordinary skill in the art would have known that the Diva System provided pay-per-view functionality.” Ex. 1019 ¶ 345.

Patent Owner argues that “Petitioner cannot equate ‘video-on-demand’ with ‘pay-per-view’ because they are not the same thing. For example, . . . Netflix subscribers can watch as many videos on-demand as they please; they do not need to pay per view.” Prelim. Resp. 30. In other words, according to Patent Owner, “video-on-demand” does not necessary “create a financial consequence.” We agree and are not sufficiently persuaded that a person of ordinary skill in the art would have known that the “Diva Systems video-on-demand system” (*see* Ex. 1012, 6:47–59) provides “pay-per-view functionality” as Petitioner’s expert opines (Ex. 1019 ¶ 345). Petitioner’s expert does not point to any persuasive

evidence to support his position that the Diva video-on-demand system provides “pay-per-view functionality” or that a person of ordinary skill in the art would have known that the Diva video-on-demand system would “require a purchase, resulting in a bill” in response to a request for a video-on-demand content. *Id.*

Therefore, based on the record before us, we are not persuaded that the information presented in the Petition and the relevant portions of Julia and the Schmandt Declaration show a reasonable likelihood that Petitioner would prevail in showing that claims 5, 6, 31, and 32 are unpatentable over (8) Julia and Nazarathy; or (9) Julia and Quigley.

With regard to the obviousness combination of Julia combined with Nazarathy and Banker (Ground 10); Julia combined with Nazarathy and Gordon (Ground 11); Julia combined with Quigley and Banker (Ground 12); or Julia combined with Quigley and Banker (Ground 13), Petitioner states that claims 5, 6, 31, and 32 “are also rendered obvious by the additional teaching of either Banker or Gordon.” Pet. 61, 66–67; *see* Ex. 1019 ¶¶ 446–447. Patent Owner, however, argues that “Petitioner appears to premise any combination of Banker or Gordon with Julia on Julia already disclosing the “creat[ing]” step. Prelim. Resp. 29. In other words, according to Patent Owner, Petitioner is not relying on the combination with either Banker or Gordon for the “creating a financial consequence” limitation. We have reviewed the record and, on the record before us, we agree with Patent Owner that Petitioner appears to be relying on Julia for teaching the “creating a financial consequence” limitation (Pet. 62–63; Ex. 1019 ¶ 345) and as discussed above, Petitioner has not persuaded us that Julia teaches the limitation at issue. We are therefore not persuaded that Petitioner has

established a reasonable likelihood that it would prevail in showing unpatentability of claims 5, 6, 31, and 32 over (10) Julia, Nazarathy, and Banker; (11) Julia, Nazarathy, and Gordon; (12) Julia, Quigley, and Banker; or (13) Julia, Quigley, and Gordon.

III. CONCLUSION

For the reasons set forth above, based on the current record, we determine that the information presented in the Petition establishes that there is a reasonable likelihood that Petitioner would prevail in showing the unpatentability of at least one challenged claim. We institute an *inter partes* review of *all* challenged claims (1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42) of the '196 Patent based on *all* grounds raised in the Petition as identified in the table above. *See supra* Section II.C; SAS Guidance.

IV. ORDER

For the foregoing reasons, it is hereby:

ORDERED that the Petition is *granted*, and trial is instituted on *all* challenged claims (1, 2, 4–6, 12, 13, 27, 28, 30–32, and 38–42) of the '196 Patent and based on *all* grounds raised in the Petition as identified in the table above. *See supra* Section II.C.

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Patent 7,047,196 B2

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