

Trials@uspto.gov
Tel: 571-272-7822

Paper 108
Entered: April 10, 2019

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, L.L.C.,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Cases

IPR2013-00540 (Patent 6,233,314 B1)
IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740 B2)
IPR2013-00543 (Patent 7,555,104 B2)
IPR2013-00544 (Patent 8,213,578 B2)
IPR2013-00545 (Patent 6,594,346 B2)
IPR2013-00549 (Patent 6,603,835 B2)
IPR2013-00550 (Patent 7,003,082 B2)
IPR2014-00780 (Patent 6,603,835 B2)

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

PER CURIAM.

DECISION ON REMAND
35 U.S.C. § 318(a); 35 U.S.C. § 144

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

I. INTRODUCTION

At issue in this Decision are nine petitions filed by CaptionCall, L.L.C. (“Petitioner”) requesting an *inter partes* review of certain claims in eight patents owned by Ultratec, Inc. (“Patent Owner”). Petitioner filed the first eight petitions on the same day. *See* IPR2013-00540 (“IPR540”), Paper 2 (challenging U.S. Patent No. 6,233,314 B1); IPR2013-00541 (“IPR541”), Paper 1 (challenging U.S. Patent No. 5,909,482); IPR2013-00542 (“IPR542”), Paper 1 (challenging U.S. Patent No. 7,319,740 B2); IPR2013-00543 (“IPR543”), Paper 1 (challenging U.S. Patent No. 7,555,104 B2); IPR2013-00544 (“IPR544”), Paper 1 (challenging U.S. Patent No. 8,213,578 B2); IPR2013-00545 (“IPR545”), Paper 1 (challenging U.S. Patent No. 6,594,346 B2); IPR2013-00549 (“IPR549”), Paper 1 (challenging U.S. Patent No. 6,603,835 B2); IPR2013-00550 (“IPR550”), Paper 1 (challenging U.S. Patent No. 7,003,082 B2). We instituted reviews based on the first eight petitions. While these reviews were proceeding in parallel, Petitioner filed a ninth petition seeking a second *inter partes* review of the patent challenged in IPR549 (i.e., U.S. Patent No. 6,603,835 B2), but challenging claims other than those under review in IPR549. *See* IPR2014-00780 (“IPR780”), Paper 7 (challenging U.S. Patent No. 6,603,835 B2).

In due course we issued nine final written decisions determining that Petitioner had shown by a preponderance of the evidence that all of the reviewed claims were unpatentable. IPR540, Paper 78, 53 (Final Written

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Decision); IPR541, Paper 76, 74 (Final Written Decision); IPR542, Paper 66, 29 (Final Written Decision); IPR543, Paper 66, 28 (Final Written Decision); IPR544, Paper 74, 54 (Final Written Decision); IPR545, Paper 65, 39 (Final Written Decision); IPR549, Paper 71, 33 (Final Written Decision); IPR550, Paper 57, 24 (Final Written Decision); and IPR780, Paper 35, 55 (Final Written Decision). Patent Owner appealed each of our final written decisions to the United States Court of Appeals for the Federal Circuit. The court issued its decision vacating our nine final written decisions and remanding these cases to the Board on August 28, 2017. *Ultratec, Inc. v. CaptionCall LLC*, 872 F.3d 1267 (Fed. Cir. 2017).

A. The Inter Partes Reviews

1. The Challenged Patents

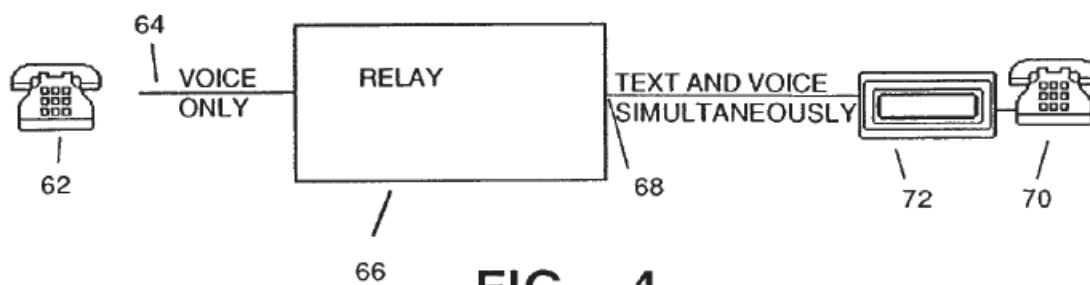
The challenged patents describe various systems and methods for assisting deaf, hard of hearing, or otherwise hearing-impaired individuals in using telephones. *See, e.g.*, IPR542, Ex. 1001, 1:26–29. A conventional system uses a device that includes a keyboard, a display, and a specific type of modem, and is known as a telecommunication device for the deaf (TDD), a text telephone (TT), or a teletype (TTY). *Id.* at 1:37–43. When a hearing person who does not have access to a TDD wishes to communicate with a hearing-impaired person who uses a TDD, the parties may utilize a relay system, in which a human intermediary, known as a “call assistant,” communicates with the hearing user by voice and with the hearing-impaired user by using a TDD. *Id.* at 1:66–2:11. In a conventional relay system, the

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

call assistant types, at a TDD keyboard, the words spoken by the hearing user and voices to the hearing user the words received on the TDD from the hearing-impaired user. *Id.* at 2:11–16. The challenged patents relate to various alleged improvements for providing a captioned telephone service.

Some of the challenged patents relate to using voice recognition software at the relay. For example, instead of typing the hearing user's words, the call assistant re-voices those words into a microphone that transmits the voice of the call assistant to a computer with voice recognition software trained specifically to the voice of the call assistant. *Id.* at 6:18–37. Using the voice recognition software, the computer translates the words of the call assistant to digital text, which is sent to a display of the hearing-impaired user. *Id.* at 6:50–57.

Many of the challenged patents describe a captioned telephone device at the site of the assisted user. *Id.* at 9:18–10:4. Figure 4 of the '740 patent, reproduced below, illustrates the setup of a telephone call involving captioned telephone device 72:



As shown in Figure 4, a hearing user at telephone 62 communicates with relay 66 through telephone line 64. *Id.* at 9:20–22. The relay communicates

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

both the voice of the hearing user and a transcription of the text of the conversation through telephone line 68 to an assisted user. *Id.* at 9:22–23. At the assisted user’s site are captioned telephone device 72, which includes a display for text, and conventional telephone 70. *Id.* at 9:23–27. The functions of captioned telephone device 72 and telephone 70 may be combined into a single device. *Id.* at 9:36–43. The arrangement shown in Figure 4 sometimes is referred to as “single line” because only one line is used at the assisted user’s site. The single line carries both the text transcription and the voice of the hearing user between the assisted user’s site and the relay.

Some arrangements, however, involve two lines at the assisted user’s site—one line to connect the assisted user with the hearing user and another line to connect the assisted user with the relay. This arrangement is sometimes referred to as “two-line.” For example, Figure 5 of the ’740 patent, reproduced below, shows such an arrangement.

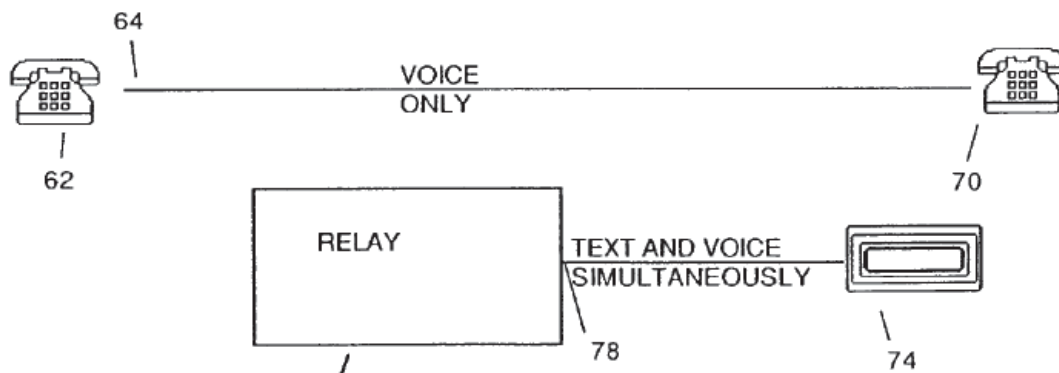


FIG. 5

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

As shown in Figure 5, this embodiment utilizes voice-only telephone line 64 between telephone 62 of the hearing user and telephone 70 at the assisted user's location, and a separate connection—telephone line 78—carrying text and voice between relay 76 and captioned telephone device 74 at the assisted user's location. *Id.* at 9:44–54. The voice of the hearing user is received at telephone 70 and transferred to telephone line 78 for transmission to relay 76, which converts the spoken words to a text stream to be returned to the assisted user via telephone line 78. *Id.* at 9:54–57, 10:16–21.

2. *The Challenges*

In its challenges, Petitioner collectively asserted eleven references and relied on expert testimony of Mr. Benedict Occhiogrosso. In its Responses in six proceedings (IPR540, IPR541, IPR544, IPR545, IPR549, and IPR780), Patent Owner relied on expert testimony of Mr. Paul W. Ludwick. In the other three proceedings (IPR542, IPR543, and IPR550), Patent Owner relied on expert testimony of Mr. James A. Steel, Jr.

More specifically, Petitioner collectively asserted the following references as prior art against various challenged claims across the nine proceedings:

“Alshawi”—U.S. Patent No. 5,815,196.

“Choi”—W. Choi et al., Splitting and Routing Audio Signals in Systems with Speech Recognition, IBM TECHNICAL DISCLOSURE BULLETIN, Vol. 38, No. 12, 503–04 (December 1995).

“Engelke '405”—U.S. Patent No. 5,724,405.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

“Jones”—PCT International Publication No. WO 95/00946.

“Liebermann”—U.S. Patent No. 5,982,853.

“McLaughlin”—U.S. Patent No. 6,181,736 B1.

“Mukherji”—U.S. Patent No. 7,117,152 B1.

“Ryan”—U.S. Patent No. 5,809,112.

“Vasile”—U.S. Patent No. 5,289,523.

“Wycherley”—U.S. Patent No. 5,163,081.

“Yamamoto”—Seiichi Yamamoto & Masanobu Fujioka, *New Applications of Voice Recognition*, Proc. JASJ Conf. (March 1996).

The prior art references were considered in the nine proceedings in the following specific grounds:

IPR/Patent	Reference(s)	Basis	Claim(s)
IPR540 US 6,233,314	Ryan (Ex. 1004)	§ 102	1 and 2
	Wycherley (Ex. 1002) and Yamamoto (Ex. 1005, 1006) ¹	§ 103	1 and 2
IPR541 US 5,909,482	Ryan (Ex. 1004)	§ 102	1 and 5
	Wycherley (Ex. 1002) and Yamamoto (Ex. 1005, 1006)	§ 103	1 and 5
	Wycherley, Yamamoto, and Jones (Ex. 1008)	§ 103	2, 7, and 8
	Wycherley, Yamamoto, and Choi (Ex. 1009)	§ 103	3, 10, and 11
	Wycherley, Yamamoto, and Vasile (Ex. 1003)	§ 103	4, 13, and 14
	Wycherley, Yamamoto, and Liebermann (Ex. 1010)	§ 103	6

¹ Ex. 1005 is in Japanese; Ex. 1006 is a certified English translation.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

IPR/Patent	Reference(s)	Basis	Claim(s)
IPR541 US 5,909,482	Wycherley, Yamamoto, Jones, and Liebermann	§ 103	9
	Wycherley, Yamamoto, Choi, and Liebermann	§ 103	12
	Wycherley, Yamamoto, Vasile, and Liebermann	§ 103	15
IPR542 US 7,319,740	McLaughlin (Ex. 1009) and Ryan (Ex. 1004)	§ 103	1 and 2
IPR543 US 7,555,104	McLaughlin (Ex. 1012) and Ryan (Ex. 1005)	§ 103	1 and 2
IPR544 US 8,213,578	Ryan (Ex. 1004)	§ 102	7
	Wycherley (Ex. 1005) and Yamamoto (Ex. 1006, 1007) ²	§ 103	7
	Ryan and McLaughlin (Ex. 1009)	§ 103	7–11
IPR545 US 6,594,346	Ryan (Ex. 1005) and Alshawi (Ex. 1010)	§ 103	1 and 2
IPR549 US 6,603,835	Liebermann (Ex. 1008) and Engelke '405 (Ex. 1005)	§ 103	1–5 and 7
IPR550 US 7,003,082	McLaughlin (Ex. 1006)	§ 102	1
IPR780 US 6,603,835	Liebermann (Ex. 1008), Engelke '405 (Ex. 1005), and Mukherji (Ex. 1009)	§ 103	6 and 8

Of particular relevance here are three prior art references—
 McLaughlin, Ryan, and Yamamoto—and testimony of Petitioner's expert,

² Ex. 1006 is in Japanese; Ex. 1007 is a certified English translation.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Mr. Occhiogrosso, concerning the disclosures of those references and his opinion that the challenged claims are unpatentable.

McLaughlin describes a simultaneous voice and data (SVD) modem used in connection with a relay service in which an operator mediates communications between a hearing person and a hearing-impaired person. IPR542, Ex. 1009, 30:13–31:63. McLaughlin describes a hearing-impaired user using an answering device or system comprising two SVD modems connected to two communication links, Line A and Line B. *Id.* at 30:59–63, 32:17–19. When a voice call from the hearing user arrives on the first line (Line A), the answering device sets up an SVD link with the relay service on the second line (Line B). *Id.* at 31:35–40. Voice sounds received from the hearing user on Line A are sent to the relay operator on Line B. *Id.* at 31:41–43. The relay operator translates the voice sounds into text, which is sent over Line B to appear on the screen of the hearing-impaired user’s answering device. *Id.* at 31:43–47. The hearing-impaired user also types responses back to the relay operator over Line B. *Id.* at 31:47–49. The relay operator voices the text, and the relay operator’s voice sounds are carried on Line B to the hearing-impaired user’s answering device and passed over to Line A to be heard by the hearing user. *Id.* at 31:49–52. Conversation among all three parties is “full duplex,” so that all parties may talk or type simultaneously. *Id.* at 31:55–62.

McLaughlin also provides details about how its SVD modems can be used to provide legacy services such as “voice carry over” (VCO) and “hearing carry over” (HCO). *Id.* at 29:65–30:12. Details regarding

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

McLaughlin’s ability to operate in a number of modes are described in the section titled “Hearing/Speaking Persons Calling Deaf and/or Speech Impaired Persons,” which includes a number of subsections discussing the features of the invention. *See generally id.* at 29:18–34:56. One issue in these post-remand proceedings concerns expert testimony of Mr. Occhiogrosso regarding these various subsections in McLaughlin.

Issues in these post-remand proceedings also involve Mr. Occhiogrosso’s testimony concerning Ryan’s voice recognition software and its location. Ryan describes a relay interface system for communication between a standard telephone set used by a hearing user and a TDD used by a hearing-impaired person. IPR542, Ex. 1004, Abstract, 1:6–10. Figure 1 of Ryan is set forth below:

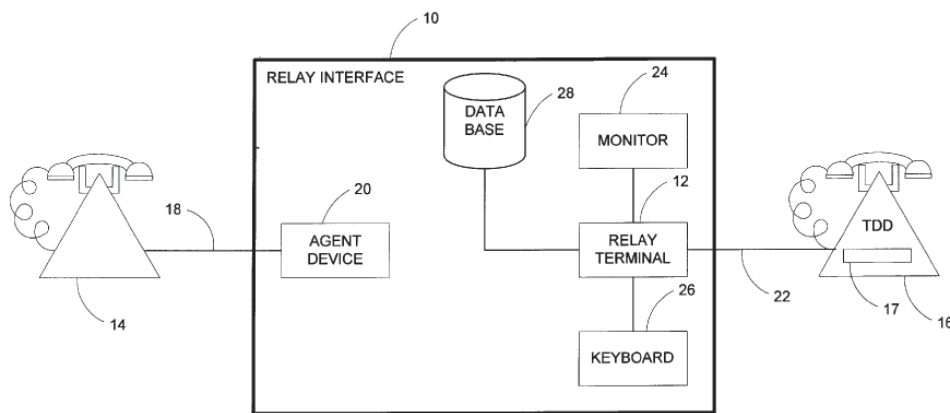


FIG. 1

As shown in Figure 1, Ryan’s relay interface 10 includes operator/relay terminal 12 and connects standard telephone set 14 with TDD 16 having associated display 17. *Id.* at 3:43–48. Telecommunications link 18 connects telephone 14 with relay interface 10 through agent

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

device 20, and telecommunications link 22 connects TDD 16 with relay interface 10 through relay terminal 12. *Id.* at 3:48–52. An operator or relay agent typically is responsible for manipulating relay terminal 12 using keyboard 26 to relay messages between telephone 14 and TDD 16.

Id. at 4:19–21. Ryan indicates, however, that speech recognition software could be used to automate the relay function so that an operator or relay agent would not be required. *Id.* at 4:21–24. Ryan specifically describes using speech recognition software at agent device 20 to interpret a voice message from a caller at telephone 14 and convert the message from a voice format to a data format. *Id.* at 4:24–27. Ryan further provides:

If the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent’s voice message into a data message.

Id. at 4:33–38.

A related issue in these post-remand proceedings involves Mr. Occhiogrosso’s testimony concerning the location of software in Yamamoto. Yamamoto describes tests of voice recognition systems. IPR540, Ex. 1006, 34–36. Along with other examples, Yamamoto describes a test with an operator assistance system for international calling, noting a preliminary step in an operator assistance system for international calling is “voice recognition of an operator repeating the question from the [international calling] user” to increase efficiency. *Id.* at 35 (§ 3.2).

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

B. Post-Remand Proceedings

In its opinion vacating the Board’s final written decisions and remanding these proceedings to the Board, the Federal Circuit provided the following instructions regarding the remand of these proceedings:

On remand, the Board shall admit and consider Mr. Occhiogrosso’s trial testimony [from *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.)]. If the Board finds he gave inconsistent testimony, the Board shall consider the impact on the specific patents at issue in the trial testimony *as well as* on his credibility as a whole.

Ultratec, Inc. v. CaptionCall LLC, 872 F.3d 1267, 1275 (Fed. Cir. 2017).

We requested the parties submit proposals on the conduct of the remanded proceedings. *See, e.g.*, IPR540, Paper 104 (“Remand Order”), 4. After discussing their respective proposals in a conference call with the parties, we issued an order regarding the scope of remand, briefing, and supplementing the evidentiary record. *See, e.g.*, Remand Order; IPR540, Ex. 2029 (Transcript of conference call).

1. Supplementing the Evidentiary Record

The Federal Circuit directed us to “admit and consider Mr. Occhiogrosso’s trial testimony” but did not specify whether all of Mr. Occhiogrosso’s district court trial testimony, or only portions of it, should be admitted. *Ultratec*, 872 F.3d at 1275; Remand Order 9. Petitioner proposed that Patent Owner be permitted to supplement the evidentiary record with the portions of Mr. Occhiogrosso’s district court trial testimony on cross examination that Patent Owner alleges is inconsistent with his testimony in

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

these *inter partes* reviews. Remand Order 9 (citing Ex. 2029, 10:2–15; Ex. 3004, 4).³ Petitioner further proposed that Petitioner be permitted to supplement the record with additional trial testimony from Mr.

Occhiogrosso as necessary to counter Patent Owner’s allegations of inconsistency. *Id.* (citing Ex. 2029, 10:16–25; Ex. 3004, 4).

Patent Owner proposed that it be permitted to supplement the record with Mr. Occhiogrosso’s allegedly inconsistent testimony and additional testimony as needed for context, or all of Mr. Occhiogrosso’s trial testimony if the Board believed that would be helpful. *Id.* (citing Ex. 2029, 24:16–22).

After considering the parties’ proposals and the Federal Circuit’s remand instructions, we indicated having all of Mr. Occhiogrosso’s trial testimony entered into the record of these proceedings would be beneficial. *Id.* We then ordered Patent Owner to submit a transcript of all of Mr. Occhiogrosso’s district court trial testimony as an exhibit or exhibits in each of these proceedings. *Id.* Subsequently, Patent Owner filed Mr. Occhiogrosso’s trial testimony in each proceeding as Exhibit 2031 (October 16, 2014 morning testimony), Exhibit 2032 (October 16, 2014 afternoon testimony), and Exhibit 2033 (October 17, 2014 testimony).

2. Authorized Briefing

Regarding briefing during the post-remand proceeding, Petitioner indicated that the remand from the Federal Circuit was narrow and was

³ Citations in the Remand Order are to exhibits in IPR540 unless otherwise noted.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

limited to consideration of Mr. Occhiogrosso's district court trial testimony as directed by the Federal Circuit. Remand Order 4 (citing Ex. 2029, 5:24–6:8; Ex. 3004, 1–2). In particular, Petitioner asserted that the Board should determine as a threshold issue whether Mr. Occhiogrosso gave inconsistent testimony, and then if, and only if, the Board determines he did, the Board should determine whether such inconsistent testimony impacts the patents at issue in these proceedings and Mr. Occhiogrosso's credibility as a whole. *Id.* (citing Ex. 3004, 1–2). Petitioner proposed that briefing by the parties should address both issues. Remand Order 4 (citing Ex. 3004, 2).

Patent Owner proposed that several topics should be briefed by the parties and considered by the Board on remand. *Id.* First, Patent Owner requested briefing to identify and explain alleged inconsistencies in Mr. Occhiogrosso's testimony as they span topically across the proceedings and to explain the impact of Mr. Occhiogrosso's credibility on the outcome of the proceedings. *Id.* (citing Ex. 2029, 12:21–13:20; Ex. 3004, 2). In this regard, Patent Owner's proposal regarding Mr. Occhiogrosso's testimony is similar to Petitioner's proposal described above. *Id.*

Patent Owner also sought to bring additional issues into the scope of the remanded proceedings. *Id.* at 5. In light of the recent expiration of the subject patents, Patent Owner proposed that the parties have the opportunity to brief what claim constructions, if any, would change under the standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and the impact of any revised constructions. *Id.* (citing Ex. 2029, 14:9–16:20; Ex. 3004, 2). Patent Owner further proposed that it be

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

permitted to submit, along with accompanying trial testimony, documentary evidence related to secondary considerations that had been designated under the district court's protective order but has been unsealed since briefing closed in the original *inter partes* review proceedings. *Id.* (citing Ex. 2029, 16:21–19:14, 20:13–15; Ex. 3004, 2). Patent Owner also requested briefing to explain the impact of such additional evidence on these proceedings. *Id.* (citing Ex. 3004, 2). Finally, Patent Owner sought targeted additional discovery and briefing on the issue of whether Petitioner identified all the real parties in interest. *Id.* (citing Ex. 2029, 20:22–24:8; Ex. 3004, 2). Patent Owner proposed a first round of briefing to address all topics except identification of real parties in interest, which Patent Owner proposed to address in a second round of briefing overlapping with the first. *Id.* (citing Ex. 3004, 1).

Mindful of the Federal Circuit's remand instructions, we authorized Patent Owner to file a brief that (i) identifies with particularity portions of Mr. Occhiogrosso's district court trial testimony that Patent Owner alleges is inconsistent and explains how it is inconsistent with specific testimony provided by Mr. Occhiogrosso in these proceedings, and (ii) explains how the allegedly inconsistent testimony impacts specific unpatentability determinations in the Board's final written decisions in these proceedings as well as how it impacts Mr. Occhiogrosso's credibility as a whole. *Id.* at 5–6.

We authorized Petitioner to file a responsive brief addressing the same issues as Patent Owner's brief. *Id.* at 6. We indicated that Petitioner may

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

cite additional portions of Mr. Occhiogrosso’s trial testimony to counter Patent Owner’s allegations of inconsistency. *Id.*

Regarding logistics, we authorized each party to prepare a single brief addressing these issues with respect to all of the proceedings and submit that brief in each proceeding, making clear the proceeding in which any particular paper or exhibit was entered. *Id.*

Subsequently, Patent Owner filed its Consolidated Brief on Remand (*see, e.g.*, IPR540, Paper 106, “PO Br.”) and Petitioner filed its Response (*see, e.g.*, IPR540, Paper 107, “Pet. Br.”).

3. *Patent Owner’s Requests for Additional Briefing*

In our Remand Order, we also explained that, if we determined based on the parties’ initial remand briefs that Mr. Occhiogrosso provided inconsistent testimony and that any inconsistency impacted, in a material way, our unpatentability determinations regarding the patents at issue or Mr. Occhiogrosso’s credibility as a whole, we would consider at that time whether to authorize briefing directed to the additional issues identified by Patent Owner. Remand Order 6–7.

In addition, in our Remand Order, we specifically addressed Patent Owner’s request to bring claim construction issues into the post-remand proceedings. *Id.* at 5, 7–9. We indicated that we were aware that the *Phillips* standard of claim construction generally applies to patents that have expired. *Id.* at 7. We addressed the two cases cited by Patent Owner in support of its position that it should have the opportunity at this juncture to address the effect of any claim constructions that might change under the

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Phillips standard. *Id.* (citing Ex. 2029, 14:17–15:12 (citing *In re CSB-System Int’l, Inc.*, 832 F.3d 1335, 1340–41 (Fed. Cir. 2016); *Facebook, Inc. v. Pragmatus AV, LLC*, 582 F. App’x 864, 869 (Fed. Cir. 2014))). We noted that in *CSB-System*, the Federal Circuit held that when a patent expires during an appeal from an examiner’s final rejection in an ex parte reexamination, the Board must apply a *Phillips* claim construction. *Id.* (citing 832 F.3d at 1341). We also noted that in *Facebook*, the Federal Circuit construed claim terms under *Phillips* when patents subject to *inter partes* reexamination expired during the pendency of the appeal of the Board’s decisions to the Federal Circuit. *Id.* (citing 582 F. App’x at 868–69). We concluded that these cases were not particularly on point because neither one involves an *inter partes* review proceeding or addresses whether the Board in a remand proceeding, especially one with specific, tailored instructions from the Federal Circuit, necessarily must reinterpret under a *Phillips* framework any previously construed claim terms when a patent expires during the pendency of the remand. *Id.*

In opposition to Patent Owner’s position, Petitioner cited *Personal Web Technologies, LLC v. Apple, Inc.*, 848 F.3d 987 (Fed. Cir. 2017), in support of its position that we should not allow briefing on how claim terms would be construed under *Phillips*. Remand Order 8 (citing Ex. 2029, 26:18–27:14). We explained in our Remand Order that, in *Personal Web*, a patent subject to *inter partes* review expired after the Board’s final written decision but while a rehearing request was pending before the Board. *Id.* (citing *Personal Web*, 848 F.3d at 990). On appeal to the Federal Circuit,

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

the parties disputed whether the Board properly applied a broadest reasonable interpretation standard in construing claim terms at issue, with the Director of the Patent and Trademark Office arguing in support of the Board's approach. *Id.* (citing *Personal Web*, 848 F.3d at 990). The court, however, determined that it need not resolve the dispute because the Board's construction was correct under either standard. *Id.* (citing *Personal Web*, 848 F.3d at 990). In our Remand Order, we concluded that, although Petitioner contends that *Personal Web* presents a situation similar to the one here, the Federal Circuit ultimately did not address the issue. *Id.*

In conclusion, we determined that the parties had not identified, and we were not aware of, any authority requiring us to reconsider on remand all of our earlier unpatentability determinations just because the patents have since expired. *Id.* Through its reasoning and explicit instructions to consider Mr. Occhiogrosso's trial testimony and the impact of any inconsistencies on the challenged patents and Mr. Occhiogrosso's credibility, the Federal Circuit carefully delineated the scope of the remand in these proceedings. *Id.* We further indicated that, if we determined in the course of following the court's remand instructions that inconsistencies in Mr. Occhiogrosso's testimony require us to reevaluate the patentability of any claims, we would at that point consider Patent Owner's requests for additional briefing on specific topics, including claim construction under the *Phillips* standard. *Id.* at 8–9.

Neither party requested rehearing of our Remand Order that indicated how the post-remand proceedings would be conducted. *See*

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

37 C.F.R. § 42.71(d) (providing that a party dissatisfied with a decision may file a single request for rehearing without prior authorization from the Board and any such request must be filed within 14 days of the entry of a non-final decision). Patent Owner's counsel, however, contacted the Board on February 28, 2018 (eight weeks after entry of our Remand Order on January 3, 2018, and nearly four weeks after Patent Owner filed its Remand Brief on February 2, 2018) and again on May 8, 2018. Patent Owner sought confirmation that Patent Owner would be given the opportunity to put its arguments and evidence on the record regarding its arguments on real party in interest, claim construction, and purported additional evidence that Petitioner copied the claimed inventions, regardless of our ultimate conclusion on whether Mr. Occhiogrosso's testimony warrants revisiting the merits of these proceedings.

Our Remand Order unambiguously delineated the scope of authorized briefing: only whether Mr. Occhiogrosso's district court trial testimony was inconsistent with his testimony in these *inter partes* review proceedings and the impact of any inconsistency. Remand Order 5. Our Remand Order explained that this authorization reflected the Federal Circuit's specific instructions on the scope of remand (Remand Order 5) and repeated those instructions (Remand Order 2):

On remand, the Board shall admit and consider Mr. Occhiogrosso's trial testimony [from *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.)]. If the Board finds he gave inconsistent testimony, the Board shall

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

consider the impact on the specific patents at issue in the trial testimony *as well as* on his credibility as a whole.

Ultratec, 872 F.3d at 1275.

In view of the unambiguous instructions of the Federal Circuit reflected in our Remand Order, we view Patent Owner’s request for “confirmation” of its ability to present evidence and arguments outside the scope of remand as a request for rehearing of our order defining the scope of these post-remand proceedings. Patent Owner’s request was made six weeks after the deadline for filing a request for rehearing. We deny Patent Owner’s request because Patent Owner failed to comply with the 14-day requirement to file a request for rehearing. 37 C.F.R. § 42.71(d); *see* 37 C.F.R. § 42.25(b) (“Delay in seeking relief may justify a denial of relief sought.”). Moreover, in our Remand Order, we explained reasons for our determination of the scope of post-remand proceedings, particularly the clear instructions from the Federal Circuit as noted above. Remand Order 3–10. We also specifically explained our reasons for disagreeing with Patent Owner’s request to revisit the merits of all nine proceedings under the *Phillips* claim construction standard. *Id.* at 5, 7–9. In addition, the administrative record for each proceeding includes Patent Owner’s proposed scope of remand (Ex. 3004) and transcript of the conference call in which Patent Owner described the arguments and evidence it sought to be included in the scope of remand (Ex. 2029), each of which was cited in the Remand Order.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

II. ANALYSIS

As mentioned above, Patent Owner alleges that Petitioner’s expert, Mr. Occhiogrosso, gave inconsistent testimony regarding the McLaughlin, Ryan, and Yamamoto references. We first address the testimony regarding McLaughlin, then the testimony regarding Ryan’s disclosure on voice recognition software, and finally the testimony regarding software location, the latter of which involves Ryan and Yamamoto.

A. Testimony Regarding McLaughlin

Patent Owner states that “[a] central issue in these proceedings is whether *McLaughlin* discloses a captioned telephone device that provides both voice and text.” PO Br. 12. Patent Owner states that, in IPR550, we “relied on Occhiogrosso’s testimony that *McLaughlin* disclosed all of the claim elements in a ‘single system.’” *Id.* at 13. That the claim elements be disclosed in a single system is relevant because our holding in IPR550 is one of anticipation.⁴ According to Patent Owner, Mr. Occhiogrosso testified

⁴ Anticipation prohibits the combination of distinct embodiments of a single reference. *See, e.g., Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008) (“[I]t is not enough that the prior art reference . . . includes multiple, distinct teachings that [an ordinary] artisan might somehow combine to achieve the claimed invention.”). Our analysis in the Final Written Decision in IPR550 uses the phrase “single system,” which should be understood to mean a disclosure describing a device arranged as claimed, sufficient for purposes of anticipation. IPR550, Paper 57, 20 (“McLaughlin’s disclosure . . . is describing options for a single system, not separate embodiments.”); *see also Net MoneyIN*, 545 F.3d at 1369 n.5 (“[C]ourts are not constrained to proceed example-by-example when

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

before us that McLaughlin disclosed a single system described in multiple sections of McLaughlin’s specification, but “undermined that position at [the district court] trial.” *Id.* at 15; *see also id.* at 18–19 (listing the three passages Patent Owner believes support its position). Patent Owner concludes that Mr. Occhiogrosso cited to different sections of McLaughlin as if they disclosed a single system before us, but allegedly testified that they were different at the district court trial. *Id.* at 20.

reviewing an allegedly anticipating prior art reference. Rather, the court must, while looking at the reference as a whole, conclude whether or not that reference discloses all elements of the claimed invention arranged as in the claim.”). Further, we distinguish between the features of a single system (i.e., a collection of components that operate together) and the features housed inside a single, contiguous box. In our Final Written Decision in IPR550, when we construed “captioned telephone device,” we noted that the specification of the ’082 patent made clear that various features of the device could be located in separate physical structures. IPR550, Paper 57, 9 (pointing out that the audio function may be separate from the text function (citing Ex. 1001, 9:20–32, 9:15–20, 10:67–11:3, and Figs. 4–6)). We reiterated that position in our Decision on Rehearing. IPR550, Paper 59, 4 (“[T]here was no requirement for all features of the claims to be found in one housing or a ‘single device.’”). Thus, when we say McLaughlin discloses a “single system,” we mean that McLaughlin discloses a collection of components that operate together. Contrary to Patent Owner’s allegations, we are not referring to the combination of multiple *embodiments*. *See* PO Br. 23–24. This distinction is relevant because in our Final Decision, the testimony of Mr. Occhiogrosso, and the arguments of Patent Owner may each use the word “system” slightly differently in different contexts, and it is that context that must be considered to understand the meaning.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

Petitioner asserts that Mr. Occhiogrosso has been consistent in his testimony throughout the PTAB and district court proceedings. In particular, Petitioner directs us to several passages in the testimony from the district court proceeding where Mr. Occhiogrosso indicates that he considers the various passages of McLaughlin to all describe “the same device,” consistent with his testimony in the IPRs. Pet. Br. 10 (citing Ex. 2032, 89:10–21); *id.* at 13 (citing Ex. 2032, 87:24–88:8); *id.* at 15 (citing Ex. 2032, 23:11–24:7); *id.* at 16 (citing Ex. 2032, 40:19–41:2). Petitioner addresses the three passages cited by Patent Owner and sets forth its explanation for why that testimony is not inconsistent. *Id.* at 10–14. Petitioner asserts that Mr. Occhiogrosso’s testimony was consistent before both tribunals. *Id.* at 16.

Having reviewed the arguments and evidence before us, we find Mr. Occhiogrosso’s district court testimony to be consistent with his IPR testimony regarding McLaughlin. In our analysis below, we address in turn the three passages from Mr. Occhiogrosso’s district court testimony cited by Patent Owner as evidence of inconsistency.⁵ We then address the

⁵ The parties and the testimony reference various “sections” of McLaughlin, which refer to various headings in the body of that text. Section “A” is directed to column 29, line 64 to column 30, line 12. Section “B” is column 30, line 13 to column 33, line 54. Section “C” is column 33, line 55 to column 34, line 56. *See also, e.g.*, PO Br. 19 (“Occhiogrosso admitted that Section A discloses”); Ex. 2032, 89:10–21 (“Q. Do you know, as you’re sitting there right now, whether this system disclosed in section b) . . . is disclosing a different system than the other two sections that you cited?”). Sections A, B, and C are subsections of the larger section titled

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

implications of this analysis on the Final Written Decisions in which we determined claims were unpatentable on grounds based at least in part on McLaughlin.

1. *Trial Testimony, Passage 1*

Patent Owner alleges that Mr. Occhiogrosso testified in district court that Section A of McLaughlin discloses a one-modem system while Section B discloses a two-modem system. PO Br. 18 (citing Ex. 2033, 39:19–40:8; Ex. 2032, 89:22–90:10). Petitioner responds that Mr. Occhiogrosso explains (at the portion immediately prior to Patent Owner’s cite) that he understands McLaughlin to be discussing the same device in those different sections. Pet. Br. 10–11 (citing Ex. 2032, 89:10–21). Reviewing these passages, it is clear to us that Mr. Occhiogrosso’s testimony is not inconsistent, and Patent Owner is only arguing semantics.

In the passage reproduced by Patent Owner at page 18 of its brief, Mr. Occhiogrosso is asked whether the Section A disclosure “is discussing a system in which the user *uses* one SVD modem.” Ex. 2033, 39:19–21 (emphasis added). Mr. Occhiogrosso answers in the affirmative. *Id.* at 39:22. Similarly, Mr. Occhiogrosso is asked about “the *use* of two SVD modems” in Section B, to which he answers in the affirmative again. *Id.* at 40:6–8 (emphasis added). The *use* of a system is different than its structure—a system must have at least the structure used, but it may have

“Hearing/Speaking Persons Calling Deaf and/or Speech Impaired Persons.”
 See *supra* Section I.A.2.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

other structures not used in that particular passage. There is nothing in the above testimony that indicates that Mr. Occhiogrosso believes that sections A and B describe separate embodiments having different numbers of modems; he merely describes how many modems are *used* by the system in each section. This is entirely consistent with his testimony throughout the district court trial that McLaughlin teaches a single system having many features:

Q. Do you know, as you're sitting there right now, whether this system disclosed in section b) *New Techniques For Hearing/Speaking Persons to Call . . . Deaf and/or Speech Impaired Persons*, do you know whether this section is disclosing a different system than the other two sections that you cited?

A. My understanding of the specification is it's a versatile device that is capable of operating in a number of configurations, so it was my interpretation of the specifications that it's the same device.

Ex. 2032, 89:10–21.

Q. And you can't tell me, as you sit here right now, whether you cited two different sections?

A. Oh, no. They're clearly different sections.

Q. Are they different systems?

A. I don't believe they're different systems. They're a system deployed in a different context, one in a LAN/WAN, one in a WAN with two SVD links connected to it. So I couldn't categorically say they're two different systems. I don't think that was your earlier question perhaps or maybe I misunderstood it.

Id. at 87:24–88:8.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Q. Do you understand -- do you have an understanding as to whether those are separate devices?

A. My understanding is it's an integrated device.

Q. An integrated device that what?

A. May have different operating modes.

Q. Would you turn, please, to page 006 of Exhibit 1913, which is column 3, lines 47 through 50? This is also a text in the McLaughlin patent?

A. Yes.

Q. Would you read that first sentence there in that paragraph?

A. "Different embodiments of the invention may include some but not others of the various modes and features."

Q. As a person of ordinary skill in the art, would you have read that section or that line before you read section 4?

A. Yes.

Ex. 2033, 24:3–19.

Q. This was a system in which there were two users who were connected directly to one another on a LAN or WAN connection, correct?

A. That's what's posited here, yes.

Q. So this is a different system than the system in section b) and a different system than the system in section a), correct?

A. No, I don't see that. In other words, to me it's another operating mode.

Id. at 40:19–41:2.

In IPR550, we based our finding that McLaughlin teaches a single system at least in part on Mr. Occhiogrosso's testimony before us, consistent

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

with his testimony before the district court, that McLaughlin teaches a single system having many features. IPR550, Paper 57, 20.

2. Trial Testimony, Passage 2

Patent Owner alleges that Mr. Occhiogrosso “admitted that the Section A one-modem system discloses a traditional [Voice Carry Over] call, which uses a one-line arrangement.” PO Br. 19 (citing Ex. 2032, 90:7–19). Petitioner correctly points out that Mr. Occhiogrosso was not asked about McLaughlin’s system here, but rather was asked a hypothetical question about a “traditional VCO call.” Pet. Br. 11. The relevant portion of the testimony is reproduced below:

Q. In a VCO call, *in a traditional VCO call*, that’s a one-line arrangement, correct?

A. Yes.

Q. So the deaf user is connected on one line to the relay, correct?

A. *In a traditional VCO*, yes.

Ex. 2032, 90:14–19 (emphasis added).

We find no admission here regarding McLaughlin; Patent Owner is attempting to re-characterize Mr. Occhiogrosso’s discussion of a hypothetical *traditional VCO* system into a discussion of McLaughlin’s system. As additional evidence that Mr. Occhiogrosso’s testimony is consistent, we note that Mr. Occhiogrosso also expresses confusion over Patent Owner’s attempts to conflate McLaughlin’s disclosure of the “use” of certain components of the system in different sections with disclosures of multiple systems. When asked whether Section A “only us[es] one SVD

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

modem,” Mr. Occhiogrosso responds that the singular word is used, but then expresses confusion as to why Patent Owner thinks this is important. Mr. Occhiogrosso responds that the use of a single modem does not mean that there are not more modems, and pushes back on Patent Owner’s attempts to elicit a different response. The entire discussion is reproduced below:

Q. Do you know, as you’re sitting there right now, whether this system disclosed in section b) *New Techniques For Hearing/Speaking Persons to Call . . . Deaf and/or Speech Impaired Persons*, do you know whether this section is disclosing a different system than the other two sections that you cited?

A. My understanding of the specification is it’s a versatile device that is capable of operating in a number of configurations, so it was my interpretation of the specifications that it's the same device.

Q. Okay. We just talked about how, in section a) *VCO/HCO With SVD Modems*, that system uses a relay. And then I think you agreed, over on column 33, the section c) *New Techniques For VCO/HCO Access*, that system does not use a relay, correct?

A. Correct.

Q. Now, let’s compare that with section a) in column 29, *VCO/HCO With SVD Modems*. That section discloses the user is only using one SVD modem; isn’t that correct?

A. I see it is singular word, “a SVD modem.” But I fail to, what’s the word I’m looking for, appreciate the depth of your question; in other words, what’s the big deal to equip the device with one or two modems.

Q. In a VCO call, in a traditional VCO call, that’s a one-line arrangement, correct?

A. Yes.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Q. So the deaf user is connected on one line to the relay, correct?

A. In a traditional VCO, yes.

Q. So doesn't that inform us here that when McLaughlin is talking about a VCO call, he's talking about one connection and therefore one SVD modem?

A. I suppose you could have the two-line architecture still talk to the relay.

Q. That's not what McLaughlin says in section a) though, correct?

A. He really doesn't say. Where do you see where he says that?

Ex. 2032, 89:10–91:3.

Taking this discussion in context, Mr. Occhiogrosso testifies that the specification describes “the same device,” and then is asked about whether the device uses various components in various modes, to which Mr. Occhiogrosso answers in a manner consistent with his “same device” opinion. Mr. Occhiogrosso does not understand “what’s the big deal” with one or two modems because *using* a certain number of modems in one mode is different from *having* a certain number of modems.⁶ Mr. Occhiogrosso later clarifies this when he responds that use of the VCO mode would only require one of the two modems (“I suppose you could have the two-line architecture still talk to the relay.”). In sum, the testimony of Mr.

⁶ Patent Owner argues that this “what’s the big deal” statement undermines Mr. Occhiogrosso’s position (PO Br. 21), but Patent Owner again conflates the description of a device using certain components with a device being limited only to those components, and also conflates Mr. Occhiogrosso’s confusion with Patent Owner’s questions with lack of understanding the technology.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Occhiogrosso is that McLaughlin discloses a single device and, in his opinion, the silence of McLaughlin as to what to do with an unused modem in one mode that does not need that modem is not itself important.

3. *Trial Testimony, Passage 3*

Patent Owner alleges “Occhiogrosso admitted that Section A and Section C disclose ‘different systems’ because one discloses a relay and one does not.” PO Br. 19 (citing Ex. 2032, 88:9–15). Petitioner responds that Occhiogrosso makes clear, immediately prior to Patent Owner’s cited portion of the testimony, that he does not believe they are independent embodiments but rather different sections addressing the features of a multi-featured system. Pet. Br. 13–14. We reproduce the testimony cited by both parties below:

Q. And you can’t tell me, as you sit here right now, whether you cited two different sections?

A. Oh, no. They’re clearly different sections.

Q. Are they different systems?

A. I don’t believe they’re different systems. They’re a system deployed in a different context, one in a LAN/WAN, one in a WAN with two SVD links connected to it. So I couldn’t categorically say they’re two different systems. I don’t think that was your earlier question perhaps or maybe I misunderstood it.

Q. Does the system spanning -- that’s described in the paragraph spanning column 29 to 30 use a relay?

A. Yes.

Q. So looking back to your slide, this morning you cited two different systems, one that uses a relay and one that doesn’t, correct?

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

A. I would have to say you are correct.

...

Q. Let's turn to McLaughlin and look at where those citations fall. Let's just start with column 31, line 43 to 47. And then let's trace back up column 31 and back up column 30 to column 30, lines 13 to 14. Do you see that your citations on this slide are to yet a third different system disclosed in McLaughlin?

A. What makes you believe this is a third different system?

Q. Do you know, as you're sitting there right now, whether this system disclosed in section b) *New Techniques For Hearing/Speaking Persons to Call . . . Deaf and/or Speech Impaired Persons*, do you know whether this section is disclosing a different system than the other two sections that you cited?

A. My understanding of the specification is it's a versatile device that is capable of operating in a number of configurations, so it was my interpretation of the specifications that it's the same device.

Ex. 2032, 87:24–89:21.

Just as in the prior passages, Mr. Occhiogrosso is consistent in his testimony that McLaughlin discloses a single system that uses the appropriate components when operating in different contexts. The testimony regarding “one [system] that uses a relay and one that doesn't” is not inconsistent with his position because Mr. Occhiogrosso is again testifying as to which components are *used*. That Mr. Occhiogrosso uses the word “system” as a stand-in for what he had previously called “context[s]” is merely arguing semantics. The substance of what Mr. Occhiogrosso is saying is clear based on the surrounding testimony, where he states that McLaughlin discloses a system having multiple features. *E.g.*, Ex. 2032,

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

18–21 (“My understanding of the specification is it’s a versatile device that is capable of operating in a number of configurations, so it was my interpretation of the specifications that it’s the same device.”). That Mr. Occhiogrosso possibly used a word imprecisely once during the day of oral testimony does not change his repeated statements that McLaughlin has a single device having certain features, even if some of them are not described as being used at the same time as other features.

4. *Conclusion on Occhiogrosso’s Testimony Regarding McLaughlin*

Reviewing the arguments and evidence before us, we find that Mr. Occhiogrosso provided consistent testimony regarding McLaughlin in the district court and before us in the IPRs. Thus, we find that his testimony before us remains credible with regard to McLaughlin. Furthermore, contrary to Patent Owner’s arguments, we explain below why any alleged inconsistencies, even if they existed, do not impact the Final Written Decisions in IPR542, IPR543, IPR544, and IPR550, the only decisions addressing grounds based on McLaughlin.

a. IPR2013-00542, IPR2013-00543, and IPR2013-00544

In our Final Written Decisions in IPR542, IPR543, and IPR544, we determined that claims 1 and 2 of the ’740 patent, claims 1 and 2 of the ’104 patent, and claims 8–11 of the ’578 patent are unpatentable as obvious over the combination of McLaughlin and Ryan. IPR542, Paper 66, 29; IPR543, Paper 66, 28; IPR544, Paper 74, 54.⁷ In each of these decisions, we

⁷ On rehearing, we modified our analysis regarding the rationale for

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

found that McLaughlin teaches a captioned telephone device as required by the claims. IPR542, Paper 66, 20 (citing Ex. 1009, 30:46–48, 30:59–63, 31:41–47, 32:41–52); IPR543, Paper 66, 19–20 (citing Ex. 1012, 30:46–48, 30:59–63, 31:41–47, 32:41–52); IPR544, Paper 74, 51 (citing Ex. 1009, 30:46–48, 30:59–63, 31:41–47, 32:41–52). Notably, all portions of McLaughlin explicitly cited in our analysis of that claim limitation appear in what Patent Owner refers to as Section B. Therefore, Patent Owner’s contention regarding Mr. Occhiogrosso’s allegedly inconsistent testimony—that he admitted in district court that different sections of McLaughlin (i.e., Sections A, B, and C) disclose different systems but testified before us that they disclose the same system—would not affect the result in these three decisions, even if the allegation were true, which it is not for the reasons explained above.

Moreover, Patent Owner’s entire argument regarding Mr. Occhiogrosso’s testimony on McLaughlin relates to our anticipation finding in IPR550, which, according to Patent Owner, relied on Mr. Occhiogrosso’s testimony that McLaughlin discloses all the claim elements in a “single system.” PO Br. 13. Thus, we agree with Petitioner that Patent Owner fails to explain how any alleged inconsistencies on this point implicate the obviousness determinations in IPR542, IPR543, and IPR544. *See* Pet.

combining McLaughlin and Ryan, but did not reconsider our findings that McLaughlin teaches a captioned telephone device. *See* IPR542, Paper 68, 2–7 (Rehearing Decision); IPR543, Paper 68, 2–7 (Rehearing Decision); IPR544, Paper 76, 10–13 (Rehearing Decision).

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Br. 18. Furthermore, even if our decisions in these cases had relied on disclosure from different sections of McLaughlin for teaching the captioned telephone device recited in the claims of the '740 patent, '104 patent, and '578 patent, such reliance would not preclude a conclusion of obviousness, even if the different sections described different systems (which, as explained above, was not Mr. Occhiogrosso's testimony in either the district court trial or the IPRs).

Finally, Patent Owner argues that in making our unpatentability determinations in IPR542, IPR543, and IPR544, we "explicitly credited [Mr.] Occhiogrosso's opinions over those of [Patent Owner's expert, Mr.] Steel."⁸ PO Br. 22–23 (citing IPR542, Paper 66, 20, 24; IPR543, Paper 66, 20; IPR544, Paper 74, 51, 53). In our decisions, however, we first made findings as to McLaughlin's teaching of a captioned telephone device, supported by ample citation to McLaughlin, and explained why Patent Owner's arguments were unpersuasive. *See, e.g.*, IPR542, Paper 66, 20. Then, "based on our review of McLaughlin," we credited Mr. Occhiogrosso's testimony over that of Patent Owner's declarants. *Id.* In other words, Mr. Occhiogrosso's testimony only confirmed our independent

⁸ Patent Owner fails to recognize that in IPR544 it relied on the testimony of Mr. Ludwick, rather than that of Mr. Steel, in support of its unpatentability arguments, and we likewise referred to Mr. Ludwick's testimony in the Final Written Decision. *See e.g.*, IPR544, Paper 74, 51 (citing Ex. 2010 ¶¶ 32–34).

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

reading of McLaughlin, and, for the reasons discussed above, Mr.

Occhiogrosso's district court testimony aligns with his testimony before us.

b. IPR2013-00550

Patent Owner points out that we relied on the testimony of Mr. Occhiogrosso when we found in IPR550 that McLaughlin describes a microphone, a speaker, and a visually readable display. PO Br. 23–25. Indeed, in our analysis of claim 1 of the '082 patent, we relied on Mr. Occhiogrosso's testimony when we found that a “person of ordinary skill in the art would consider McLaughlin to be disclosing a device capable of all of the HCO/VCO features described therein.” IPR550, Paper 57, 20 (citing IPR550, Ex. 1030 ¶¶ 23–24). Patent Owner is incorrect, however, when it states “the Board cited no other evidence [besides Occhiogrosso] to support its findings that *McLaughlin* discloses a captioned telephone device.” PO Br. 24. Our analysis of claim 1 does not require citation to Mr. Occhiogrosso's testimony because we repeatedly cite to and rely on the McLaughlin reference itself. *See generally* IPR550, Paper 57, 15–24. Even as to the portion of the decision where we cited to Mr. Occhiogrosso's testimony, we had already found “the microphone, speaker, and display limitations properly read on the device described in McLaughlin.” *Id.* at 19; *see also id.* at 18–19 (citing to the various portions of McLaughlin disclosing these features). It was only in addressing Patent Owner's arguments that we cited Mr. Occhiogrosso's testimony. *Id.* at 19–20 (stating, “To the extent Patent Owner is arguing . . . ,” followed by our response to that potential argument). Accordingly, we have found Mr. Occhiogrosso's testimony

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

reliable and trustworthy, but even if we had not, it would not affect the outcome of IPR550.

B. Testimony Regarding Ryan

Patent Owner argues that during the district court trial, Mr. Occhiogrosso made “several related admissions” concerning his testimony “surrounding” Ryan. PO Br. 28. Specifically, Patent Owner contends that Mr. Occhiogrosso’s trial testimony was inconsistent with his opinion, provided in six of the proceedings before us,⁹ that Ryan describes voice recognition software “trained to the voice of the call assistant,” as required by the claims at issue in those cases. *Id.* Patent Owner cites several excerpts of allegedly inconsistent trial testimony, which, when reordered, comprise the following single passage of testimony:

Q. Let’s focus on the sentence [from Ryan] we have highlighted, “If the software is specifically designed to recognize the voice of particular relay agents.” And if we could now compare with claim 1 of the ’482 patent, please, read along with me in the middle paragraph. “The digital computer using voice recognition computer software trained to the voice of the call assistant.” The sentence you cited in Ryan does not say “trained to the voice of the call assistant,” does it?

A. Could you put the sentence back up? The word *trained* does not appear in the sentence.

Q. Would you agree the act of designing software means developing a set of requirements and codifying those requirements into instructions in some kind of programming

⁹ IPR540, IPR541, IPR542, IPR543, IPR544, and IPR545.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

language that would subsequently be compiled, in most instances, or interpreted and executed as a process?

A. That's one variation of software design.

Q. And that's your definition of the act of designing a software, isn't it?

A. I don't recall. Is that from another transcript? Perhaps. Sounds like something I might have said.

Q. Do you agree with that definition of the act of designing software?

A. I think that's a fair characterization of it.

Q. Earlier today you were talking about speaker-dependent voice recognition software and I believe you indicated that users train the software so it can learn their voice, correct?

A. Yes.

Q. The software isn't predesigned to recognize the voice when it's speaker dependent, correct?

A. Of course not.

Ex. 2032, 78:3–79:10.

Patent Owner alleges this trial testimony is inconsistent with Mr. Occhiogrosso's IPR testimony in three ways. First, Patent Owner contends that Mr. Occhiogrosso "admitted that *Ryan* did not say that its disclosed software was "trained to the voice of the call assistant." PO Br. 30 (citing Ex. 2032, 78:3–13). As set forth above, Mr. Occhiogrosso's actual testimony was that the word "trained" does not appear in the portion of the sentence from *Ryan* quoted to him during cross-examination. This testimony does not reveal an inconsistency, as Patent Owner does not allege Mr. Occhiogrosso testified during the IPRs that the applicable phrase from

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Ryan uses the word “trained.” Further, a reference need not satisfy an *ipsissimis verbis* test to anticipate, *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009), so Mr. Occhiogrosso’s acknowledgment that the specific word “trained” does not appear in Ryan does not contradict his testimony in the IPRs that Ryan describes software “trained to the voice of the call assistant,” as recited in the claims at issue.

Second, Patent Owner argues that Mr. Occhiogrosso’s district court testimony regarding his definition of “designing software” is inconsistent with his opinion before the Board that Ryan’s disclosure of software “specifically designed to recognize the voice of particular relay agents” teaches software trained to the voice of the call assistant. PO Br. 29–30 (citing Ex. 2032, 78:14–79:2). Again, the cited trial testimony does not show an inconsistency. As Petitioner points out, Mr. Occhiogrosso earlier provided the same definition of “designing software” during a deposition for the first eight IPR proceedings, including the six with unpatentability grounds based on Ryan. *See* Pet. Br. 22 (citing, *e.g.*, IPR540, Ex. 2007, 270:13–19). We fail to see how Mr. Occhiogrosso’s agreement with that definition during his cross-examination at trial can be the basis for an inconsistency with his testimony in the proceedings before us when the definition in the question posed to Mr. Occhiogrosso was taken directly from his IPR deposition testimony.

Moreover, Mr. Occhiogrosso characterized that definition of “designing software” as just “one variation of software design.” Ex. 2032, 78:14–79:2. Significantly, he did not apply the definition directly to Ryan’s

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

disclosure of software that is “specifically designed.” Because Mr. Occhiogrosso’s trial testimony regarding a definition of “designing software” is not tied to the disclosure of Ryan itself, the testimony does not reveal an inconsistency with Mr. Occhiogrosso’s IPR testimony that Ryan teaches software trained to the voice of the call assistant. Indeed, immediately after providing that definition in his IPR testimony, Mr. Occhiogrosso turned to Ryan and confirmed that software “specifically designed” as disclosed means that the developers “built into the software the ability to recognize the voice of a particular agent,” which would be achieved with “whatever speaker-dependent speech recognition algorithm that they elected to adopt and . . . codify into software.” *E.g.*, IPR540, Ex. 2007, 270:20–271:9.

Finally, Patent Owner argues that with his answers to the last two questions in the trial testimony passage quoted above (Ex. 2032, 79:3–10), Mr. Occhiogrosso admitted that speaker-dependent software is not “*predesigned* to recognize the voice.” PO Br. 29 (emphasis added). Patent Owner apparently contends this testimony contradicts Mr. Occhiogrosso’s opinion in the IPRs that Ryan’s disclosure of software “specifically designed to recognize the voice of particular relay agents” teaches software “trained to the voice of the call assistant,” as recited in the claims. *See id.* at 31. As with the preceding excerpt, however, this trial testimony does not address Ryan’s disclosure of “specifically designed” software, and therefore is not inconsistent with Mr. Occhiogrosso’s IPR testimony that Ryan describes software trained to the voice of a call assistant. *See, e.g.*, IPR540, Ex. 1053

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

¶ 41. Furthermore, portions of Mr. Occhiogrosso’s district court testimony that do specifically address Ryan corroborate his testimony in the IPRs that the claimed voice recognition software “trained to the voice of the call assistant” is met by Ryan’s disclosure of software “specifically designed to recognize the voice of particular relay agents.” Ex. 2031, 65:17–66:7 (providing opinion that Ryan satisfies the claim language); Ex. 2033, 21:10–22:6 (explaining that a person of ordinary skill in the art would understand Ryan specifically designed software to include speaker-dependent speech recognition software that has been trained).

For these reasons, we conclude that the passage from Mr. Occhiogrosso’s trial testimony quoted above (Ex. 2032, 78:3–79:10) does not conflict with his IPR testimony. Accordingly, there is no impact of these alleged inconsistencies concerning Ryan on the Final Written Decisions in IPR540, IPR541, IPR542, IPR543, IPR544, and IPR545. We find that Mr. Occhiogrosso’s testimony before us remains credible with regard to Ryan’s teaching of voice recognition software that can be trained to the voice of the call assistant.

C. Testimony Regarding Software Location

Patent Owner contends that Mr. Occhiogrosso’s trial testimony concerning whether the claims require, and whether the prior art references Ryan and Yamamoto disclose, voice recognition software stored at the call assistant workstation conflicts with his IPR testimony. PO Br. 34–46. Patent Owner asserts Mr. Occhiogrosso’s trial testimony regarding software

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

location conflicts with his testimony in IPR540 and IPR541 involving the following challenges:

Case	Patent	Reference(s)	Basis	Claim(s)
IPR540	6,233,314	Ryan	§ 102(e)	1 and 2
IPR541	5,909,482	Ryan	§ 102(e)	1 and 5
IPR541	5,909,482	Wycherley and Yamamoto	§ 103(a)	1 and 5
IPR541	5,909,482	Wycherley, Yamamoto, and Liebermann	§ 103(a)	6

PO Br. 34–46.

Having reviewed the parties’ arguments and evidence, we find that there is no inconsistency in Mr. Occhiogrosso’s trial and IPR testimony regarding whether the prior art discloses voice recognition software stored at the call assistant workstation. We also find that there is no inconsistency in Mr. Occhiogrosso’s trial and IPR testimony regarding whether the claims require such a limitation. In our analysis below, we first address Patent Owner’s contentions regarding Ryan, then Patent Owner’s contentions regarding Yamamoto, and finally Patent Owner’s contentions regarding claim scope.

1. *Testimony Concerning Ryan*

Patent Owner contends that at the district court trial Mr. Occhiogrosso acknowledged that Ryan does not disclose voice recognition software stored at the call assistant workstation. PO Br. 34 (citing Ex. 2032, 49:14–52:8, 56:25–58:13, 63:2–22), 38–39 (quoting Ex. 2032, 56:25–57). According to Patent Owner, Mr. Occhiogrosso testified at trial that Ryan discloses voice recognition software stored at the call agent’s telephone device (Ryan’s

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

Device 20), not at the relay agent’s terminal. PO Br. 34 (citing Ex. 2032, 49:14–52:8, 56:25–58:13, 63:2–22), 38–39 (quoting Ex. 2032, 56:25–58:13). But, according to Patent Owner, Mr. Occhiogrosso testified the opposite in the IPR testimony—that Ryan discloses voice recognition software stored at the call assistant workstation. PO Br. 34–35 (citing IPR540, Ex. 1014 ¶¶ 28, 32, 44; IPR541, Ex. 1014 ¶¶ 28, 32, 44). For the reasons explained below, we find no inconsistency between Mr. Occhiogrosso’s district court trial and IPR testimony.

a. Trial Testimony

In the district court trial, under cross-examination, Mr. Occhiogrosso testified that voice recognition software stored in Ryan “could be employed at Device 20,” which, according to Mr. Occhiogrosso, Ryan characterizes as the relay agent phone device. Ex. 2032, 56:25–57:17; PO Br. 38–39 (quoting Ex. 2032, 56:25–58:13). Notably, when asked to agree that Device 20 was not a workstation of a call assistant, Mr. Occhiogrosso did not agree, but equivocated that “one possibility” was that Device 20 was “just a phone” and not a call assistant workstation. Ex. 2032, 57:14–22¹⁰; PO Br. 38–39 (quoting Ex. 2032, 56:25–58:13).

¹⁰ Ex. 2032, 57:14–22 (“Q. Do you know what Device 20 is? . . . A. Device 20 is the agent device. Q. It’s a telephone, isn’t it? A. . . . yes, that’s how it is characterized in the patent, agent phone device. Q. That’s not a workstation of a call assistant, is it? A. Well, agent phone device, I mean, it could be, but I think the term *phone* may suggest that it’s just a phone. That’s one possibility.”).

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Moreover, Mr. Occhiogrosso testified at trial about another embodiment in Ryan in which a single composite terminal performs the functions of the relay agent's telephone (Device 20, which stores voice recognition software) and the functions of Terminal 12 (which, according to Petitioner, corresponds to the call assistant workstation required by the claims). Ex. 2032, 58:2–6¹¹; *see* Ex. 2032, 59:10–11; PO Br. 39 (quoting Ex. 2032, 56:25–58:13); Pet. Br. 34–35 (citing Ex. 2032, 59:5–23). Mr. Occhiogrosso agreed with Patent Owner's counsel that Ryan does not disclose that voice recognition software is saved on the composite terminal. Ex. 2032, 58:7–13,¹² 59:12–15.¹³

b. IPR Testimony

Patent Owner and Petitioner both recognize, as do we, that in Mr. Occhiogrosso's reply declaration in the IPRs, he testified unequivocally

¹¹ Ex. 2032, 58:2–6 (“Well, I’m going to just interject that, you know, essentially in Ryan there is a passage that contemplates another embodiment where he reads, ‘Of course a single composite terminal could be utilized to perform the functions of both Device 20 and Terminal 12.’”); Ex. 2032, 59:10–11 (Mr. Occhiogrosso testifying that “I also indicated that the passage in Ryan discloses that one could have a composite terminal.”).

¹² Ex. 2032, 58:7–13 (“Q. But [Ryan] doesn’t say the voice recognition software is saved on that combination terminal, does it? A. Ryan doesn’t say that, but that’s obvious to a person of ordinary skill that I could combine those two capabilities and essentially have – I mean, with all due respect, that’s not rocket science to put those two boxes together.”).

¹³ Ex. 2032, 59:12–15 (“Q. But [Ryan] does not disclose that the voice recognition software is saved on the terminal, correct? A. Well, that’s my implication. Okay. Let me read it again.”).

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
 IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
 IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
 IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
 IPR2014-00780 (Patent 6,603,835)

that Ryan discloses voice recognition software stored at the relay agent’s terminal. IPR540, Ex. 1053 ¶ 40; IPR541, Ex. 1053 ¶ 40; Pet. Br. 37 (citing IPR540, Ex. 1053 ¶ 40; IPR541, Ex. 1053 ¶ 40); PO Br. 37 (citing IPR540, Ex. 1053 ¶ 40; IPR541, Ex. 1053 ¶ 40). In his reply declaration, Mr. Occhiogrosso indicates that he “understand[s] that Patent Owner additionally asserts that Ryan fails to disclose that the relay agent’s computer contains voice recognition software.” IPR540, Ex. 1053 ¶ 40 (citing IPR540, Paper 30 (Patent Owner’s Response), 25–26); *see also* IPR541, Ex. 1053 ¶ 40. Addressing Patent Owner’s assertion, Mr. Occhiogrosso testifies that “Ryan clearly discloses that software located at the relay is in fact contained in ‘terminal 12,’ the relay agent’s terminal.” IPR540, Ex. 1053 ¶ 40 (citing Ex. 1004, 2:49–51); *see also* IPR541, Ex. 1053 ¶ 40. Mr. Occhiogrosso supports this testimony by relying on a passage in Ryan not discussed in his trial testimony. IPR540, Ex. 1053 ¶ 40 (citing Ex. 1004, 2:49–51); *see also* IPR541, Ex. 1053 ¶ 40. According to Mr. Occhiogrosso, Ryan discloses, in column two, that a relay terminal may include voice recognition software. IPR540, Ex. 1053 ¶ 40 (citing Ex. 1004, 2:49–51); *see also* IPR541, Ex. 1053 ¶ 40. Specifically, Mr. Occhiogrosso testifies:

I understand that Patent Owner additionally asserts that Ryan fails to disclose that the relay agent’s computer contains voice recognition software. PO Response, pp. 25-26. However, Ryan clearly discloses that software located at the relay is in fact contained in “terminal 12,” the relay agent’s terminal. Ex. 1004, 2:49-51 (“The computer program may analyze the words prior to transmission to the TDD (if the

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

program resides at the relay terminal)” (emphasis added)).
Indeed, Patent Owner’s argument appears to rest entirely on the assertion that the terminal referenced in the revoicing embodiment could be a different terminal than the one uniformly referred to through the patent, which is remote from the relay agent. PO Response, p. 24.

IPR540, Ex. 1053 ¶ 40; *see also* IPR541, Ex. 1053 ¶ 40.

c. Analysis

We do not find any inconsistency between Mr. Occhiogrosso’s trial and IPR testimony regarding Ryan’s disclosure of voice recognition software stored at a call assistant workstation. During the IPR proceedings, Mr. Occhiogrosso testified that Ryan discloses voice recognition software stored on “terminal 12.” Patent Owner cites no trial testimony in which Mr. Occhiogrosso stated that voice recognition software is not stored on Ryan’s “terminal 12.” Rather, Patent Owner cites Mr. Occhiogrosso’s testimony, during cross-examination at trial, that (i) Ryan expressly discloses voice recognition software at Device 20; (ii) Ryan expressly discloses a composite terminal that combines the functions of Device 20 and Terminal 12; (iii) but that Ryan has no express statements that voice recognition software is located on the composite terminal.

The fact that Mr. Occhiogrosso testified in the IPRs that Ryan discloses in another passage that voice recognition software is being stored on Terminal 12 does not conflict with his trial testimony that was limited to other passages in Ryan and that never directly indicated that voice recognition software was not stored in Terminal 12. Moreover, Patent Owner fails to address Mr. Occhiogrosso’s testimony concerning a

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

composite terminal having the functions of Device 20 and Terminal 12, which was given in the context of Mr. Occhiogrosso’s trial testimony about Device 20. This further undermines Patent Owner’s contentions of inconsistency.

2. *Testimony Concerning Yamamoto*

Patent Owner contends that Mr. Occhiogrosso provided district court trial testimony inconsistent with his IPR testimony when at trial he testified that Section 3.2 of Yamamoto “does not disclose anything about where voice recognition software is stored.” PO Br. 40–41 (citing Ex. 2032, 63:2–22); Ex. 2032, 63:2–13.¹⁴

Regarding Mr. Occhiogrosso’s IPR testimony, Patent Owner acknowledges that Mr. Occhiogrosso did not address in his reply declaration the issue of whether Yamamoto discloses where voice recognition software is stored. PO Br. 37 (citing IPR540, Ex. 1053 ¶¶ 54–62; IPR541, Ex. 1053 ¶¶ 54–62). Patent Owner, however, contends that, in the IPR proceedings, Mr. Occhiogrosso testified “that it was ‘apparent’ to one of ordinary skill in the art that Yamamoto disclosed ‘speaker-dependent voice recognition’ software at the ‘operator system.’”) PO Br. 42 (citing IPR540, Ex. 1014 ¶ 41; IPR541, Ex. 1014 ¶ 41).

¹⁴ Ex. 2032, 63:2–13 (“Q. And I’ve got some language here from Section 3.2 of Yamamoto. . . . And this section of Yamamoto does not disclose anything about where voice recognition software is stored, correct? A. From my one reading of it, I would say that that statement that you had made is correct.”).

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

The portion of Mr. Occhiogrosso’s IPR testimony cited by Patent Owner, however, does not support Patent Owner’s position.

Mr. Occhiogrosso testified that Yamamoto discloses “using voice recognition on the voice ‘of an operator repeating the question from the user’” (referred to in many of the IPRs as “revoicing”) and, though not expressly described in Yamamoto, that such a revoicing system would benefit from training the voice recognition system to the voice of the operator. IPR540, Ex. 1014 ¶ 41; IPR541, Ex. 1014 ¶ 41. Thus, this testimony concerns revoicing and the benefits of speaker-dependent voice recognition over speaker-independent voice recognition for an operator assistance system (as opposed to a fully automated voice recognition system). Mr. Occhiogrosso’s testimony discusses revoicing functionality, not the location where voice recognition software is stored. We, therefore, do not agree that Mr. Occhiogrosso testifies in paragraph 41, as Patent Owner alleges, that “Yamamoto necessarily required speaker-dependent voice recognition software at the operator system.” PO Br. 36 (citing IPR540, Ex. 1014 ¶ 41; IPR541, Ex. 1014 ¶ 41).

Because Patent Owner has not identified IPR testimony, and we are unaware of any, in which Mr. Occhiogrosso opined that Yamamoto discloses voice recognition software stored on the operator system, we do not perceive any IPR testimony that conflicts with Mr. Occhiogrosso’s trial testimony that Yamamoto in Section 3.2 does not disclose where voice recognition software is stored.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

3. *Testimony Concerning Claim Scope*

Patent Owner points to Mr. Occhiogrosso’s trial testimony concerning the scope of certain claims as being inconsistent with his IPR testimony. PO Br. 34, 37–38 (citing Ex. 2032, 49:14–25, 50:12–51:3, 52:1–8). Patent Owner may be arguing that Mr. Occhiogrosso’s trial testimony concerning whether the claims require voice recognition software stored at the call assistant workstation is inconsistent with Mr. Occhiogrosso’s IPR testimony. *See* PO Br. 37 (indicating “[Mr.] Occhiogrosso testified at trial that the claims-at-issue require voice recognition software at the call assistant workstation and that neither Ryan nor Yamamoto disclose that element”); PO Br. 34, 37–38. But Patent Owner does not identify any IPR testimony that purportedly is inconsistent. Thus, we find that Mr. Occhiogrosso’s trial testimony concerning the scope of the claims is not inconsistent with any IPR testimony concerning claim scope.

Patent Owner further contends that Mr. Occhiogrosso’s conclusions in the IPRs that Ryan anticipates the claims and the claims would have been obvious over Yamamoto (in combination with other references) is “fundamentally contradictory and cannot be reconciled” with his trial testimony that “neither Ryan nor Yamamoto disclosed this element.” PO Br. 34 (“At trial, Mr. Occhiogrosso agreed with [Patent Owner’s] assessment” that the claims required voice recognition software at the call assistant workstation, and “further acknowledged that neither Ryan nor Yamamoto disclosed the element.”) (citing Ex. 2032, 49:14–52:8, 56:25–58:13, 63:2–22).

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

We understand Patent Owner to contend that concluding claims of the '314 patent and the '482 patent are anticipated by Ryan or would have been obvious over Yamamoto (in combination with other references) in the IPRs requires Mr. Occhiogrosso to conclude that Ryan and Yamamoto disclose voice recognition software stored at the call assistant workstation. PO Br. 34–35. And, as we understand Patent Owner, this position is inconsistent with his trial testimony that neither Ryan nor Yamamoto discloses voice recognition software located at the call assistant workstation in the IPRs. PO Br. 34–35.

We disagree. First, for the reasons discussed above, we do not agree with Patent Owner's broad conclusion that Mr. Occhiogrosso testified at trial that Ryan does not disclose voice recognition software stored at the call assistant workstation. Rather, at trial, Mr. Occhiogrosso testified concerning two passages in Ryan.

Second, we disagree that Mr. Occhiogrosso testified that Yamamoto does not disclose voice recognition software stored at the call assistant workstation. Rather, Mr. Occhiogrosso's trial testimony identified by Patent Owner was limited to a particular section of Yamamoto (Section 3.2). PO Br. 34 (citing Ex. 2032, 63:2–22). Mr. Occhiogrosso himself limited his testimony to the particular section of Yamamoto.¹⁵

¹⁵ Ex. 2032, 63:18–25 (“Q. And this section of Yamamoto [Section 3.2] does not disclose anything about where the voice recognition software is stored, correct? A. From my one reading of it, I would say that that statement that you ha[ve] made is correct. Q. And so in regard to the '482 patent and the '314 patent, I believe you had obviousness grounds that were based on

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Third, in its Brief, as in the IPRs, Patent Owner asserts that the claims require voice recognition software stored at the call assistant workstation.

PO Br. 34. In our Final Written Decisions in IPR540 and IPR541, we concluded that the claims of the '314 and '482 patents do not require voice recognition software to be located at the call assistant workstation. IPR540, Paper 78, 10; IPR541, Paper 76, 12. Our conclusion was based on the plain language of the claims that require a computer only to use a voice recognition computer software package trained to the voice of the call assistant and do not expressly require the voice recognition computer software package to be stored on the call assistant's workstation, which is only one of various devices involved in the relay system. IPR540, Paper 78, 8–10; IPR541, Paper 76, 10–12. We also explained that

neither Patent Owner nor Mr. Ludwick [Patent Owner's expert] addresses sufficiently how a person of ordinary skill in the art would understand the limitation “the computer programmed *to use*” a software package to require the software package to be stored on the computer programmed to use the software package.

Thus, we will not construe “computer programmed to use a voice recognition computer software package trained to the voice of the call assistant” as requiring the software package to be stored on the computer programmed to use the software.

Yamamoto, correct? A. Yes. Q. And so to the extent that the claims of those patents require voice recognition software resident on a call assistant's workstation, the combinations involving Yamamoto would be missing this element, correct? A. With the citation to this paragraph only, yes. I think I would need to look at the remainder of Yamamoto to see if in fact there were other citations that were applicable . . .”).

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

IPR540, Paper 78, 9 (emphasis in original); *see* IPR541, Paper 76, 11–12 (similar conclusion in the context of the claim language of the '482 patent).

Thus, because the broadest reasonable construction of the claims does not require storage of voice recognition software at the call assistant workstation, we do not agree with Patent Owner that Mr. Occhiogrosso's conclusion in the IPRs that the claims were anticipated by Ryan and would have been obvious over Yamamoto (and other references) "necessarily requires him to have concluded that Ryan and Yamamoto did disclose this element," requiring voice recognition software to be stored on the call assistant workstation. PO Br. 34–35 (citing IPR540, Ex. 1014 ¶¶ 28, 32, 44; IPR541, Ex. 1014 ¶¶ 28, 32, 44).

4. Conclusion on Mr. Occhiogrosso's Testimony Regarding Software Location

For these reasons, we conclude that Mr. Occhiogrosso's trial testimony concerning whether the claims require, and whether the prior art references Ryan and Yamamoto disclose, voice recognition software stored at the call assistant workstation does not conflict with his IPR testimony. Accordingly, there is no impact of these alleged inconsistencies concerning software location on the Final Written Decisions in IPR540 or IPR541. We find that Mr. Occhiogrosso's testimony before us remains credible with regard to software location.

D. Conclusion Regarding Mr. Occhiogrosso's Testimony

We have admitted and considered Mr. Occhiogrosso's district court testimony. Upon consideration, as explained above, we have found that

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Mr. Occhiogrosso's district court testimony is consistent with his testimony offered in these proceedings. Accordingly, we determine that the admitted district court testimony has no effect on Mr. Occhiogrosso's credibility as a whole across all the proceedings.

We also have found that the alleged inconsistencies have no impact on the Final Written Decisions in IPR540, IPR541, IPR542, IPR543, IPR544, IPR545, and IPR550, the specific cases alleged by Patent Owner to involve inconsistent testimony from Mr. Occhiogrosso. *See* PO Br. 22–25, 31–34, 42–44. Our reasons in support of those findings are set forth in the analysis above.

Two cases remain unaddressed: IPR549 and IPR780. These cases do not involve McLaughlin, Ryan, or Yamamoto. Patent Owner does not allege, nor do we see, how the allegedly inconsistent district court testimony is implicated in these cases, aside from its applicability to the general credibility of Mr. Occhiogrosso. To that point, however, we have found Mr. Occhiogrosso to be a credible witness based on our above review.

Furthermore, in IPR549, our reliance on Mr. Occhiogrosso is limited to supplementing our findings that are supported by other evidence of record. We cite to Mr. Occhiogrosso's testimony as a backup to our citations to Liebermann itself, finding that "Liebermann discloses a device having one telephone line between the hearing user and the assisted user, without a relay interposing on that line." IPR549, Paper 71, 17 (citing Liebermann as support for that finding, with Mr. Occhiogrosso's testimony cited as a "*see also*" cite). We then discussed how we did not find Patent

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Owner's arguments or the testimony of its declarant, Mr. Steel, persuasive because they were in contrast to the specific teachings of Liebermann. *Id.* at 18.¹⁶ Only after discussing why Patent Owner's arguments and its declarant's testimony were not persuasive in view of Liebermann itself did we discuss Mr. Occhiogrosso's testimony. But there, we merely state that his testimony is consistent with Liebermann and that Mr. Steel's testimony was not consistent with Liebermann (which we had just discussed). Thus, we have found Mr. Occhiogrosso's testimony reliable and trustworthy, but even if we had not, it would not affect the outcome of IPR549.

Similarly, Patent Owner does not allege, nor do we see, how the allegedly inconsistent testimony in Exhibits 2031, 2032, and 2033 is implicated in IPR780, aside from its applicability to the general credibility of Mr. Occhiogrosso. To that point, however, we have found Mr. Occhiogrosso to be a credible witness based on our above review. In addition, as Petitioner correctly notes, in IPR780 Patent Owner had the opportunity as a matter of right to enter, and had the opportunity to cross-examine Mr. Occhiogrosso during routine discovery on, the testimony we now consider in Exhibits 2031, 2032, and 2033. Pet. Br. 6–7. Patent Owner declined to do so.

¹⁶ Patent Owner argued that Liebermann disclosed a “switch,” but we found “Liebermann does not use or imply those words.” *Id.* at 18. Then we discussed Patent Owner's arguments and Mr. Steel's testimony directed to the diagram in Figure 2 with further discussion of Liebermann. *Id.* Then we again addressed Patent Owner's “party call” argument with further citations to Liebermann regarding two cellular connections. *Id.*

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

Furthermore, our reliance on Mr. Occhiogrosso in IPR780 is limited to a single passage where we bolster our existing finding that the proposed combination would have been predictable (based on Mukherji), with further testimony from Mr. Occhiogrosso. IPR780, Paper 35, 36–37 (relying on Mukherji to respond to Patent Owner’s argument), 37 (relying on “the disclosure of Mukherji itself” as evidence, and then, “[i]n addition,” citing to Occhiogrosso). Accordingly, we have found Mr. Occhiogrosso’s testimony reliable and trustworthy, but even if we had not, it would not affect the outcome of IPR780.

III. CONCLUSION

Upon remand, we were ordered to “admit and consider” the district court testimony of Mr. Occhiogrosso and “[i]f the Board finds he gave inconsistent testimony,” to “consider the impact on the specific patents at issue in the trial testimony *as well as* on his credibility as a whole.” *Ultratec*, 872 F.3d at 1275. As we have explained above, we do not find Mr. Occhiogrosso to have given inconsistent testimony, and we find him to remain a credible witness as a whole. We have thus discharged our duty on remand, and find that no changes to our prior decisions are warranted. Accordingly, our prior Final Written Decisions stand, in conjunction with this Decision on Remand, as our Final Written Decisions for these proceedings.

IPR2013-00540 (Patent 6,233,314) IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740) IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578) IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835) IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)

IV. ORDER

In view of the foregoing, it is hereby

ORDERED that our Final Written Decisions in IPR2013-00540, IPR2013-00541, IPR2013-00542, IPR2013-00543, IPR2013-00544, IPR2013-00545, IPR2013-00549, IPR2013-00550, and IPR2014-00780 are hereby modified to include this Decision, but are otherwise not modified upon remand; and

FURTHER ORDERED that this is a final written decision under 35 U.S.C. § 318(a) and parties to the proceeding seeking judicial review of this Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2013-00540 (Patent 6,233,314)	IPR2013-00541 (Patent 5,909,482)
IPR2013-00542 (Patent 7,319,740)	IPR2013-00543 (Patent 7,555,104)
IPR2013-00544 (Patent 8,213,578)	IPR2013-00545 (Patent 6,594,346)
IPR2013-00549 (Patent 6,603,835)	IPR2013-00550 (Patent 7,003,082)
IPR2014-00780 (Patent 6,603,835)	

PETITIONER:

Ruben Munoz
rmunoz@akingump.com

Michael Kahn
mkahn@akingump.com

Daniel Moffett
dmoffett@akingump.com

Caitlin Olwell
colwell@akingump.com

PATENT OWNER:

Michael Jaskolski
michael.jaskolski@quarles.com

Michael J. Curley
michael.curley@quarles.com

Martha Jahn Snyder
martha.snyder@quarles.com

Nikia L. Gray
nikia.gray@quarles.com

Kristin Graham Noel
kgn@quarles.com

Trials@uspto.gov
571-272-7822

Paper No. 104
Entered: January 3, 2018

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, L.L.C.,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Cases IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)¹

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

PETTIGREW, *Administrative Patent Judge*.

ORDER
Conduct of the Proceeding
37 C.F.R. §§ 42.5

¹ This Order addresses issues that are the same in all identified cases. We exercise our discretion to issue one Order to be filed in each case.

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

INTRODUCTION

These proceedings are on remand from the United States Court of Appeals for the Federal Circuit. The court issued its decision vacating the Board’s final written decisions and remanding these cases to the Board on August 28, 2017. *Ultratec, Inc. v. CaptionCall LLC*, 872 F.3d 1267 (Fed. Cir. 2017). In its opinion, the Federal Circuit provided the following instructions regarding the remand of these proceedings: “On remand, the Board shall admit and consider Mr. Occhiogrosso’s trial testimony [from *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.)]. If the Board finds he gave inconsistent testimony, the Board shall consider the impact on the specific patents at issue in the trial testimony *as well as* on his credibility as a whole.” *Ultratec*, 872 F.3d at 1275. The Federal Circuit mandates issued on October 19, 2017. Ex. 3003.²

After the parties notified the Board they were in the process of conferring regarding their respective proposals on the conduct of remand proceedings, we instructed the parties to send a joint e-mail to the Board identifying any agreed-upon proposals as well as points not agreed upon. We received such an e-mail on December 5, 2017. *See* Ex. 3004.

On December 13, 2017, we held a conference call to discuss the parties’ proposals regarding remand proceedings. Counsel for CaptionCall, L.L.C. (“Petitioner”), counsel for Ultratec, Inc. (“Patent Owner”), and

² Exhibit 3003 in the record of each case is the mandate for the appeal from the final written decision in that proceeding.

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

Judges Saindon, Benoit, and Pettigrew participated in the call. Patent Owner arranged for a court reporter to be on the call and submitted a transcript of the call on December 28, 2017. *See* IPR2013-00540, Ex. 2029.³

DISCUSSION

The Board’s Standard Operating Procedure 9 provides guidance regarding the procedure for handling cases remanded from the Federal Circuit. *See* PTAB SOP 9 (“Procedure for Decisions Remanded from the Federal Circuit for Further Proceedings”). Under SOP 9, “the panel shall consider procedures proposed by the parties,” but “ultimately will decide the procedures to be followed on remand.” *Id.* at 5 (App’x 2). SOP 9 further provides that “[t]he panel will consider the scope of the remand, as determined from the reasoning and instructions provided by the Federal Circuit, as well as ‘the effect . . . on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings.’” *Id.* at 6 (App’x 2) (quoting 35 U.S.C. §§ 316(b), 326(b)). With regard to additional briefing, SOP 9 states that it “will normally be limited to the specific issues raised by the remand.” *Id.* (citing *Microsoft Corp. v. Proxyconn, Inc.*, Case No. IPR2012-00026 (Paper 77) (PTAB Sept. 1, 2015); *Dell Inc., v. Accelaron, LLC*, Case No. IPR2013-00440 (Paper 46) (PTAB May 26, 2016)). SOP 9 also

³ For convenience, we cite the exhibit entered in IPR2013-00540. Patent Owner also submitted the transcript from the call in the other eight proceedings.

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

provides guidance regarding supplementation of the evidentiary record on remand. *Id.* at 6–7 (App’x 2).

With this guidance in mind, we have considered the parties’ proposals in determining the procedures to be followed on remand, as set forth below.

Scope of Remand and Briefing

Petitioner submits that the remand from the Federal Circuit is narrow and is limited to consideration of Mr. Occhiogrosso’s district court trial testimony as directed by the Federal Circuit. Ex. 2029, 5:24–6:8; Ex. 3004, 1–2. In particular, Petitioner asserts that the Board should determine as a threshold issue whether Mr. Occhiogrosso gave inconsistent testimony, and then if, and only if, the Board determines he did, the Board should determine whether such inconsistent testimony impacts the patents at issue in these proceedings and Mr. Occhiogrosso’s credibility as a whole. Ex. 3004, 1–2. Petitioner proposes that briefing by the parties should address both issues. *Id.* at 2.

Patent Owner proposes that several topics should be briefed by the parties and considered by the Board on remand. First, Patent Owner requests briefing to identify and explain alleged inconsistencies in Mr. Occhiogrosso’s testimony as they span topically across the proceedings and to explain the impact of Mr. Occhiogrosso’s credibility on the outcome of the proceedings. Ex. 2029, 12:21–13:20; Ex. 3004, 2. Patent Owner’s proposal regarding Mr. Occhiogrosso’s testimony is similar to Petitioner’s proposal described above.

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

Patent Owner also seeks to bring additional issues into the scope of the remanded proceedings. In light of the recent expiration of the subject patents, Patent Owner proposes that the parties have the opportunity to brief what claim constructions, if any, would change under the standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and the impact of any revised constructions. Ex. 2026, 14:9–16:20; Ex. 3004, 2. Patent Owner further proposes that it be permitted to submit, along with accompanying trial testimony, documentary evidence related to secondary considerations that had been designated under the district court’s protective order but has been unsealed since briefing closed in the original *inter partes* review proceedings. Ex. 2029, 16:21–19:14, 20:13–15; Ex. 3004, 2. Patent Owner also requests briefing to explain the impact of such additional evidence on these proceedings. Ex. 3004, 2. Finally, Patent Owner seeks targeted additional discovery and briefing on the issue of whether Petitioner identified all the real parties-in-interest. Ex. 2029, 20:22–24:8; Ex. 3004, 2. Patent Owner proposes a first round of briefing to address all topics except identification of real parties-in-interest, which Patent Owner proposes to address in a second round of briefing overlapping with the first. Ex. 3004, 1.

Mindful of the Federal Circuit’s remand instructions as well as the Board’s SOP 9 governing remand procedures, at this time we authorize briefing directed only to whether Mr. Occhiogrosso’s district court trial testimony was inconsistent with his testimony in these *inter partes* review proceedings and the impact of any inconsistency. Specifically, we authorize Patent Owner to file a brief that (i) identifies with particularity portions of

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

Mr. Occhiogrosso's district court trial testimony that Patent Owner alleges is inconsistent and explains how it is inconsistent with specific testimony provided by Mr. Occhiogrosso in these proceedings, and (ii) explains how the allegedly inconsistent testimony impacts specific unpatentability determinations in the Board's final written decisions in these proceedings as well as how it impacts Mr. Occhiogrosso's credibility as a whole. Patent Owner is to prepare a single brief addressing these issues with respect to all of the proceedings and submit that brief in each proceeding. The brief may cite to the record in any of the nine cases, making clear the proceeding in which any particular paper or exhibit was entered.⁴ Patent Owner's brief is limited to 10,000 words and shall be filed no later than February 2, 2018.

Petitioner is authorized to file a single responsive brief addressing the same issues as Patent Owner's brief. Petitioner may cite additional portions of Mr. Occhiogrosso's trial testimony to counter Patent Owner's allegations of inconsistency. Like Patent Owner, Petitioner shall submit the same brief in each proceeding and may cite to the record in any of the nine cases. Petitioner's brief is limited to 10,000 words and shall be filed no later than March 5, 2018. Patent Owner is not authorized to file a reply brief.

At this time, the parties are not authorized to file briefs addressing any other issues. If we determine based on the parties' initial remand briefs that Mr. Occhiogrosso provided inconsistent testimony and that any

⁴For example, a cite to "IPR2013-00540, Ex. 1001, 2-3" would be understood to cite to pages 2 through 3 of Exhibit 1001 in IPR2013-00540.

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

inconsistency impacted in a material way our unpatentability determinations regarding the patents at issue or Mr. Occhiogrosso's credibility as a whole, we will consider at that time whether to authorize briefing directed to the additional issues identified by Patent Owner. Otherwise, in following the guidance of SOP 9, which directs us to limit briefing "to the specific issues raised by the remand," no supplemental briefing will be authorized.

We are aware that the *Phillips* standard of claim construction generally applies to patents that have expired. Patent Owner cites two cases in support of its position that it should have the opportunity at this juncture to address the effect of any claim constructions that might change under the *Phillips* standard. Ex. 2029, 14:17–15:12 (citing *In re CSB-System Int'l, Inc.*, 832 F.3d 1335, 1340–41 (Fed. Cir. 2016); *Facebook, Inc. v. Pragmatus AV, LLC*, 582 Fed. App'x 864, 869 (Fed. Cir. 2014)). In *CSB-System*, the Federal Circuit held that when a patent expires during an appeal from an examiner's final rejection in an ex parte reexamination, the Board must apply a *Phillips* claim construction. 832 F.3d at 1341. In *Facebook*, the Federal Circuit construed claim terms under *Phillips* when patents subject to *inter partes* reexamination expired during the pendency of the appeal of the Board's decisions to the Federal Circuit. 582 Fed. App'x at 868–69. These cases are not particularly on point because neither one involves an *inter partes* review proceeding or addresses whether the Board in a remand proceeding necessarily must reinterpret under a *Phillips* framework any previously construed claim terms when a patent expires during the pendency of the remand.

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

Petitioner cites *Personal Web Technologies, LLC v. Apple, Inc.*, 848 F.3d 987 (Fed. Cir. 2017), in support of its position that we should not allow briefing on how claim terms would be construed under *Phillips*. See Ex. 2029, 26:18–27:14. In that case, a patent subject to *inter partes* review expired after the Board’s final written decision but while a rehearing request was pending before the Board. *Personal Web*, 848 F.3d at 990. On appeal to the Federal Circuit, the parties disputed whether the Board properly applied a broadest reasonable interpretation standard in construing claim terms at issue, with the Director of the Patent and Trademark Office arguing in support of the Board’s approach. *Id.* The court, however, determined that it need not resolve the dispute because the Board’s construction was correct under either standard. *Id.* Thus, although Petitioner contends that *Personal Web* presents a situation similar to the one here, the Federal Circuit ultimately did not address the issue.

Thus, the parties have not identified, and we are not aware of, any authority requiring us to reconsider on remand all of our earlier unpatentability determinations just because the patents have since expired. Through its reasoning and explicit instructions to consider Mr. Occhiogrosso’s trial testimony and the impact of any inconsistencies on the challenged patents and Mr. Occhiogrosso’s credibility, the Federal Circuit carefully delineated the scope of the remand in these proceedings. If we determine in the course of following the court’s remand instructions that inconsistencies in Mr. Occhiogrosso’s testimony require us to reevaluate the patentability of any claims, we will at that point consider Patent Owner’s

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

requests for additional briefing on specific topics, including claim construction under the *Phillips* standard.

Supplementing the Evidentiary Record

The Federal Circuit directed us to “admit and consider Mr. Occhiogrosso’s trial testimony” but did not specify whether all of Mr. Occhiogrosso’s district court trial testimony, or only portions of it, should be admitted. *Ultratec*, 872 F.3d at 1275. Petitioner proposes that Patent Owner be permitted to supplement the evidentiary record with the portions of Mr. Occhiogrosso’s district court trial testimony on cross-examination that Patent Owner alleges is inconsistent with his testimony in these *inter partes* reviews. Ex. 2029, 10:2–15; Ex. 3004, 4. Petitioner further proposes that Petitioner be permitted to supplement the record with additional trial testimony from Mr. Occhiogrosso as necessary to counter Patent Owner’s allegations of inconsistency. Ex. 2029, 10:16–25; Ex. 3004, 4. Patent Owner proposes that it be permitted to supplement the record with Mr. Occhiogrosso’s allegedly inconsistent testimony and additional testimony as needed for context, or all of Mr. Occhiogrosso’s trial testimony if the Board believes it would be helpful. Ex. 2029, 24:16–22.

Having considered the parties’ proposals and the Federal Circuit’s remand instructions, we are of the view that it would be beneficial to have all of Mr. Occhiogrosso’s trial testimony entered into the record of these proceedings. Accordingly, Patent Owner shall submit a transcript of all of Mr. Occhiogrosso’s district court trial testimony as an exhibit or exhibits in each of these proceedings, which both parties shall cite.

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

The parties are not authorized to submit any other new evidence at this time. If later we authorize additional briefing as described above, we will consider at that time whether to authorize further supplementation of the record.

ORDER

Accordingly, it is:

ORDERED that Patent Owner is authorized to file a brief that (i) identifies with particularity portions of Mr. Occhiogrosso's district court trial testimony that Patent Owner alleges is inconsistent and explains how it is inconsistent with specific testimony provided by Mr. Occhiogrosso in these proceedings, and (ii) explains how the allegedly inconsistent testimony impacts specific unpatentability determinations in the Board's final written decisions in these proceedings as well as how it impacts Mr. Occhiogrosso's credibility as a whole;

FURTHER ORDERED that Patent Owner's brief is limited to 10,000 words and shall be filed no later than February 2, 2018;

FURTHER ORDERED that Petitioner is authorized to file a responsive brief addressing the same issues;

FURTHER ORDERED that Petitioner's brief is limited to 10,000 words and shall be filed no later than March 5, 2018;

FURTHER ORDERED that Patent Owner, at its earliest convenience, but no later than February 2, 2018, shall submit as an exhibit or exhibits in each proceeding a transcript of all of Mr. Occhiogrosso's trial testimony in

IPR2013-00540 (Patent 6,233,314),
IPR2013-00541 (Patent 5,909,482), IPR2013-00542 (Patent 7,319,740),
IPR2013-00543 (Patent 7,555,104), IPR2013-00544 (Patent 8,213,578),
IPR2013-00545 (Patent 6,594,346), IPR2013-00549 (Patent 6,603,835),
IPR2013-00550 (Patent 7,003,082), IPR2014-00780 (Patent 6,603,835)

Ultratec, Inc. v. Sorenson Communications, Inc., No. 13-CV-00346 (W.D. Wis.); and

FURTHER ORDERED that no other issues shall be briefed and no other new evidence shall be submitted at this time.

PETITIONER:

Ruben H. Munoz
Michael P. Kahn
Daniel L. Moffett
Caitlin Olwell
AKIN GUMP STRAUSS HAUER & FELD LLP
rmunoz@akingump.com
mkahn@akingump.com
dmoffett@akingump.com
colwell@akingump.com

PATENT OWNER:

Michael Jaskolski
Martha Jahn Snyder
Michael J. Curley
Nikia L. Gray
Kristin Graham Noel
QUARLES & BRADY LLP
michael.jaskolski@quarles.com
martha.snyder@quarles.com
michael.curley@quarles.com
nikia.gray@quarles.com
kristin.noel@quarles.com

Trials@uspto.gov
571-272-7822

Paper 78
Entered: March 3, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, L.L.C.,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Case IPR2013-00540
Patent 6,233,314 B1

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

BENOIT, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

IPR2013-00540
Patent 6,233,314 B1

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6(c). This final written decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1 and 2 of U.S. Patent No. 6,233,314 B1 (Ex. 1021; “the ’314 patent”) are unpatentable.

A. Procedural History

CaptionCall, L.L.C. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1 and 2 of the ’314 patent pursuant to 35 U.S.C. §§ 311-319. Paper 1 (“Pet.”). Patent Owner, Ultratec, Inc., did not file a preliminary response. On March 5, 2014, pursuant to 35 U.S.C. § 314(a), we instituted an *inter partes* review for claims 1 and 2 of the ’314 patent on the following grounds of unpatentability: under 35 U.S.C. § 102(e) as anticipated by Ryan¹ and under 35 U.S.C. § 103(a) for obviousness over Wycherley² and Yamamoto.³ Paper 8 (“Inst. Dec.”).

Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 30; “PO Resp.”), and Petitioner filed a Reply (Paper 35; “Reply”). Patent Owner also filed Motions to Exclude Evidence. Paper 45

¹ U.S. Patent No. 5,809,112 (Ex. 1004) (“Ryan”).

² U.S. Patent No. 5,163,081 (Ex. 1002) (“Wycherley”).

³ Seiichi Yamamoto & Masanobu Fujioka, *New Applications of Voice Recognition*, Proc. JASJ Conf. (March 1996) (Ex. 1005). Unless indicated otherwise, all subsequent citations to Yamamoto refer to its English translation (Ex. 1006).

IPR2013-00540
Patent 6,233,314 B1

(“PO Mot. to Exc. Occhiogrosso”); Paper 46 (“PO Mot. to Exc. Yamamoto”). Petitioner filed a combined Opposition (Paper 55; “Pet. Opp. to Mots. to Exc.”) to Patent Owner’s Motions, and Patent Owner filed a Reply to Petitioner’s Opposition (Paper 58; “PO Reply to Opp. to Mots. to Exc.”). Also, Petitioner filed a Motion for Leave to File Supplemental Evidence Regarding Yamamoto (Paper 52), and Patent Owner filed an Opposition to Petitioner’s Motion (Paper 57). In response to the Board’s order (Paper 63), Petitioner filed additional briefing (Paper 65) regarding the public availability of Yamamoto. In turn, Patent Owner filed a response (Paper 67), to which Petitioner filed a Reply (Paper 68).

An oral hearing was held on November 19, 2014.⁴

B. Related Proceedings

Petitioner represents that the ’314 patent was asserted against its parent company in *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.). Pet. 2. Petitioner also represents that in the same district court proceeding Patent Owner asserted the following patents at issue in *inter partes* reviews—U.S. Patent No. 5,909,482 (Case IPR2013-00541), U.S. Patent No. 7,319,740 (Case IPR2013-00542), U.S. Patent No. 7,555,104 (Case IPR2013-00543), U.S. Patent No. 8,213,578 (Case IPR2013-00544), U.S. Patent No. 6,594,346 (Case IPR2013-00545),

⁴ This proceeding, as well as IPR2013-00541, IPR2013-00542, IPR2013-00543, IPR2013-00544, IPR2013-00545, IPR2013-00549, and IPR2013-00550 involve the same parties and some similar issues. The oral arguments for all eight reviews were merged and conducted at the same time. A transcript of the oral hearing is included in the record as Paper 77.

IPR2013-00540
Patent 6,233,314 B1

U.S. Patent No. 6,603,835 (Case IPR2013-00549), and U.S. Patent No. 7,003,082 (Case IPR2013-00550).

C. The '314 Patent

The '314 patent discusses a way to assist deaf, hard of hearing, or otherwise hearing impaired individuals to use telephones. Ex. 1021, 1:14-18. According to the '314 patent, conventional assistance uses a device having a keyboard and display, which may be called a text telephone (TT), a teletype (TTY), or a telecommunication device for the deaf (TDD). *Id.* at 1:26-29. A human intermediary facilitates communication between a hearing user and a hearing impaired user by communicating by voice with the hearing user and using a TDD to communicate with the hearing impaired user. *Id.* at 1:61-65. The system of voice-to-TDD communication used by the human intermediary (called an operator or call assistant) is referred to as a relay. *Id.*

The '314 patent indicates the effectiveness of relay systems is limited by the speed at which a call assistant can type the words said by the hearing user. *Id.* at 2: 9-22. The '314 patent relates to a relay system to improve performance of voice-to-text interpretation for translating between hearing impaired and hearing users. *Id.* at 3:13-16. Instead of typing the hearing user's words, the call assistant speaks those words into a microphone that transmits the voice of the call assistant to a computer with voice recognition software that is trained to the voice of the call assistant. *Id.* at 5:27-46. The computer translates the words of the call assistant to digital text, which is sent to a display of the hearing impaired user. *Id.* at 5:49-64.

IPR2013-00540
Patent 6,233,314 B1

D. Illustrative Claim

Petitioner challenges both claims of the '314 patent. Claims 1 and 2 are independent claims. Claim 2 is illustrative of the claims at issue and reads as follows:

2. A relay to facilitate communication between a digital telecommunication device and a hearing person through a telephone system and using a call assistant, the relay comprising

a speaker connected to receive voice communications from the telephone system and transmit those voice communications to the ear of the call assistant;

a microphone connected to pickup voice spoken by the call assistant;

a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream; and

a modem connected to the digital computer to transit the digital text stream created by the computer over the telephone system to the telecommunication device.

Id. at 8:37-53.

II. ANALYSIS

A. 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. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, No. 2014-1301, slip op. at 11–19 (Fed. Cir. Feb. 4, 2015). Under the broadest reasonable construction standard, claim terms are

IPR2013-00540
Patent 6,233,314 B1

presumed to be 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. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We construe “the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” recited in claims 1 and 2, in accordance with these principles. No other claim terms require express construction.

I. “trained to the voice of the call assistant”

Neither party expressly proposes a construction for “trained to the voice of the call assistant.” *See* Pet. 6-7; PO Resp. 8-12; Reply 2. In their dispute over the teachings of the asserted prior art, however, the parties articulate different views on how the term should be construed. Patent Owner construes “trained to the voice of the call assistant” to require training to recognize individual voices (PO Resp. 27-28), presumably trained to the voice of one and only one call assistant and precluding training for a type of speech used by a group of people (such as a regional accent) that could apply to more than one call assistant. Patent Owner also seeks to construe “trained to the voice of the call assistant” as having a temporal constraint so as to preclude training at the time when the voice recognition

IPR2013-00540
Patent 6,233,314 B1

computer software package is “*designed* in advance of implementation at the source code level.” PO Resp. 26. According to Patent Owner, “trained to the voice of the call assistant” precludes software that is “built to” recognize the voice of a particular agent. PO Resp. 27. Petitioner disagrees. Reply 5.

The Specification of the ’314 patent does not set forth a special definition for “training.” The Specification, however, in its “Brief Summary of the Invention,” indicates “a speech recognition computer program which has been trained to the voice *pattern* of the call assistant.” Ex. 1021, 2:45-48 (emphasis added). In the context of describing the relay shown in Figure 1, the Specification describes “the call assistant operat[ing] at a computer terminal which contains a copy of a voice recognition software package which is specifically trained to the voice of that *particular* call assistant.” *Id.* at 5:45-48 (emphasis added). The Specification, however, does not indicate expressly that the voice recognition software is trained to the voice of only that particular call assistant or otherwise indicate the voice recognition software is trained for the voice of only one call assistant.

As such, the Specification contemplates software trained to “a voice pattern of the call assistant” as well as software “specifically trained to the voice of [a] particular call assistant.” Further, the Specification indicates, in those passages, that the voice recognition software package is trained but does not indicate when or how the training occurs. *Id.* at 2:45-48, 5:45-48. Patent Owner, relying on its declarant Mr. Paul W. Ludwick, asserts software “designed” is not software that is “trained to recognize individual voices.” PO Resp. 26. According to Mr. Ludwick, a person of ordinary skill in the art would not have understood “trained” software to include

IPR2013-00540
Patent 6,233,314 B1

“designed” software because technology to train software to recognize individual voices did not exist in 1994 and was not used in telecommunications relay service at that time. PO Resp. 26 (citing Ex. 2010 ¶¶ 21-22). We also note here that the technology available in 1994 has little probative value here because the year of invention is 1997, for the reasons discussed below.

We give claim language its broadest reasonable construction in light of the specification of the patent in which it appears. Thus, we will not limit “trained to the voice of the call assistant” to require training to the voice of only one particular call assistant, because the claim language encompasses the invention as disclosed in the Specification—software trained to a voice *pattern* of a call assistant. Ex. 1021, 2:41-49 (“Summary of the Invention”). Nor will we limit “trained to the voice of the call assistant” to a particular time in which the training must occur or to a particular manner of training that is not found in the claims nor the Specification.

Accordingly, “trained to the voice of the call assistant” does not preclude voice recognition software that is designed or built in advance of implementation at the source code level to the voice pattern of a call assistant. Nor is “trained to the voice of the call assistant” limited to training to the voice of one and only one call assistant.

2. “*computer programmed to use a voice recognition computer software package trained to the voice of the call assistant*”

Neither party expressly proposes a construction for “computer programmed to use a voice recognition computer software package trained to the voice of the call assistant.” See Pet. 6-7; PO Resp. 8-12; Reply 2. In

IPR2013-00540
Patent 6,233,314 B1

the dispute over the teachings of the asserted prior art references, however, Patent Owner contends, based on the testimony of Mr. Ludwick, that the claimed voice recognition software must be “running on the call assistant’s workstation—e.g., not remotely or virtually running on or from a server or other computer.” PO Resp. 25 (citing Ex. 2010 ¶¶ 59-62).

Mr. Ludwick explains that, because the claim requires the call assistant to speak into a microphone connected to the computer programmed to use a voice recognition computer software package and because of advantages of such an arrangement, the claimed software package must reside on the claimed computer to which the microphone is connected. Ex. 2010 ¶¶ 60-62; *see also* PO Resp. 25.

Claims 1 and 2, however, require the computer “to *use* a voice recognition computer software package” and do not require expressly the voice recognition computer software package to be stored on the computer programmed to use the software package. Patent Owner, based on Mr. Ludwick’s testimony, acknowledges the software package may be stored other than on the call assistant’s computer. PO Resp. 25 (indicating a terminal may be able to transmit a voice signal to be converted to text by a server or other computer located remotely from the call assistant’s computer) (citing Ex. 2010 ¶¶ 63-64). Notably, neither Patent Owner nor Mr. Ludwick addresses sufficiently how a person of ordinary skill in the art would understand the limitation “the computer programmed *to use*” a software package to require the software package to be stored on the computer programmed to use the software package.

IPR2013-00540
Patent 6,233,314 B1

Thus, we will not construe “computer programmed to use a voice recognition computer software package trained to the voice of the call assistant” as requiring the software package to be stored on the computer programmed to use the software.

B. Principles of Law

To prevail in challenging claims 1 and 2 of the ’314 patent, Petitioner must demonstrate by a preponderance of the evidence that the claims are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

A claim is anticipated if a single prior art reference either expressly or inherently discloses every limitation of the claim. *Orion IP, LLC v. Hyundai Motor Am.*, 605 F.3d 967, 975 (Fed. Cir. 2010). To establish inherent disclosure, the evidence must show that a feature is necessarily described in the reference. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). To anticipate, a reference also “must enable one of ordinary skill in the art to make the invention without undue experimentation.” *Impax Labs., Inc. v. Aventis Pharm., Inc.*, 545 F.3d 1312, 1314 (Fed. Cir. 2008). To determine whether “undue experimentation” is required, various factors are examined, including (1) the quantity of experimentation; (2) the amount of direction or guidance present; (3) the presence or absence of working examples; (4) the nature of the invention; (5) the state of the prior art; (6) the relative skill of those in the art; (7) the predictability or unpredictability of the art; and (8) the breadth of the claims. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988); *see also Impax Labs.*, 545 F.3d at 1314-15 (indicating the Wands factors

IPR2013-00540
Patent 6,233,314 B1

should be applied to a determination whether a prior art reference is enabled).

A claim is unpatentable under 35 U.S.C. § 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 of the invention to a person having ordinary skill in the art. *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 ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). The level of ordinary skill in the art is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

C. Patent Owner's Motion to Exclude Testimony by Mr. Occhiogrosso

Patent Owner seeks to exclude the testimony of Mr. Benedict Occhiogrosso (Exs. 1014, 1053, 2006, 2007, and 2016) on the theory that he is not qualified as an expert under Federal Rule of Evidence 702 ("FRE 702").^{5,6} PO Mot. to Exc. Occhiogrosso; PO Resp. 4-8. FRE 702

⁵ Patent Owner also seeks to *exclude* Mr. Occhiogrosso's testimony under 37 C.F.R. § 42.65. PO Mot. to Exc. Occhiogrosso 1. Rule 42.65, however, addresses (a) the weight given to expert testimony that does not disclose underlying facts or data on which the opinion is based, (b) the showing required if a party seeks to rely on a technical test or data from such a test,

IPR2013-00540
Patent 6,233,314 B1

provides that a witness qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion if (a) the expert’s knowledge will help the trier of fact to understand the evidence or to determine a fact in issue, (b) the testimony is based upon sufficient facts or data, (c) the testimony is the product of reliable principles and methods, and (d) the witness has applied the principles and methods reliably to the facts of the case.

Testimony on the issue of unpatentability proffered by a witness who is not “qualified in the pertinent art” generally is not admissible under FRE 702. *Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1363–64 (Fed. Cir. 2008). In determining who is qualified in the pertinent art under FRE 702, we need not find a complete overlap between the witness’s technical qualifications and the problem confronting the inventor or the field of endeavor. *See SEB S.A. v. Montgomery Ward & Co., Inc.*, 594 F.3d 1360, 1372–73 (Fed. Cir. 2010) (upholding admission of the testimony of an expert who admittedly lacked expertise in the design of the patented invention, but had experience with materials selected for use in the invention); *Mytee Prods., Inc. v. Harris Research, Inc.*, 439 Fed. App’x 882, 886–87 (Fed. Cir. 2011) (non-precedential) (upholding admission of the testimony of an expert who “had experience relevant to the field of the

and (c) the exclusion of expert testimony on United States patent law or patent examination practice. As such, Rule 42.65 does not apply to a determination whether to exclude Mr. Occhiogrosso’s testimony.

⁶ With some enumerated exceptions, the Federal Rules of Evidence apply to an *inter partes* review. 37 C.F.R. § 42.62.

IPR2013-00540
Patent 6,233,314 B1

invention,” despite admission that he was not a person of ordinary skill in the art).

Patent Owner contends that, to qualify as an expert under FRE 702, Mr. Occhiogrosso must be a person of ordinary skill in the art, and that Mr. Occhiogrosso is not a person of ordinary skill in the art because “he is an information technology (“IT”) generalist” and does not have “any specific experience in the context of [telecommunications relay systems] for the deaf and the HOH [hear of hearing].” PO Mot. to Exc. Occhiogrosso 5; *see also id.* at 1-4 (discussing the definition of a person of ordinary skill in the art); 5-7 (discussing Mr. Occhiogrosso’s experience with respect to these factors). Petitioner responds that Patent Owner’s definition of the level of ordinary skill in the art conflates a requirement for skill in the relevant technical art (“telecommunications systems [having] voice-to-text transcription”) with skill in one particular commercial sector that applies that technical art (“telecommunications services *specifically* designed for the deaf or hard of hearing”). Pet. Opp. to Mots. Exc. 1, 3-4.

Patent Owner’s arguments are unpersuasive at the outset because, to testify as an expert under FRE 702, a person need not be a person of ordinary skill in the art, but rather “qualified in the pertinent art.” *Sundance*, 550 F.3d at 1363-64; *SEB*, 594 F.3d at 1372-73; *Mytee*, 439 Fed. App’x at 886-87. Patent Owner’s arguments are also unpersuasive because they attempt to constrict the “pertinent art,” i.e., the pertinent technology, to a particular subset of individuals who use the pertinent technology, rather than the pertinent technology itself. *See* Pet. Opp. to Mots. to Exc. 4-5 (arguing

IPR2013-00540
Patent 6,233,314 B1

that the problems in the pertinent art are not “uniquely related” to the deaf and hard-of-hearing).

Moreover, Patent Owner indicates elsewhere that the relevant field of art is telecommunication technologies. *See* PO Resp. 18 n.2 (Patent Owner indicating its declarant “Mr. Ludwick indisputably is [a person of ordinary skill in the art] in telecommunications technologies, which is the relevant field of art” to opine on speech recognition software for use in telecommunication relay service settings). Petitioner similarly indicates the relevant field is telecommunication technologies. *Pet. Opp. to Mots. to Exc. 6* (“Mr. Occhiogrosso’s qualifications should be analyzed with respect to the pertinent art of telecommunication technologies in which an intermediary facilitates voice-to-text transcription.”).

We agree that the pertinent art is telecommunication technologies. The ’314 patent states that the “present invention relates to the general field of telephone communications.” *Ex. 1021*, 1:14-15. The ’314 patent focuses on a particular application of that technology: people who need assistance in using telecommunications devices. *Id.* at 1:15-2:9 (describing various prior art assistive technologies). The ’314 patent also summarizes the invention as the use of a speech recognition computer program trained to the voice of the call assistant to translate promptly the words spoken by an intermediary call assistant into a “high speed digital communication message [that] is then transmitted electronically promptly by telephone to a visual display accessible to the” hearing-assisted user. *Id.* at 2:41–52.

The qualifications of Mr. Occhiogrosso, as summarized in his curriculum vitae (*Ex. 1015*), qualify him to give expert testimony on the

IPR2013-00540
Patent 6,233,314 B1

subject of telecommunication technologies. He possesses a Bachelor of Science in Electrical Engineering and a Master of Science in Electrical Engineering. Ex. 1015, 2. Mr. Occhiogrosso testifies that he has more than thirty years of experience in the field of telecommunications and information technology, and he has planned, designed, implemented, and managed large scale projects involving wired and wireless communication systems, including transmission of voice and data. Ex. 1014 ¶ 7; *see also* Ex. 1015, 2-6 (detailing Mr. Occhiogrosso’s enterprise consulting engagements, research and development, and wireless experience).

Moreover, to the extent Mr. Occhiogrosso is more familiar with general telecommunications technology and less familiar with voice-to-text or its application to the deaf or hearing-impaired, or to the extent that Mr. Occhiogrosso’s testimony is inconsistent or unsupported, we weigh Mr. Occhiogrosso’s testimony accordingly, taking into account the extent of his expertise in these areas. *See, e.g., Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (holding the Board has discretion to give more weight to one item of evidence over another “unless no reasonable trier of fact could have done so”); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”).

Patent Owner also contends that Mr. Occhiogrosso’s testimony fails to identify the level of skill in the art in his declaration (Ex. 1014), fails to give any consideration to what one of ordinary skill in the art would have known or not known, is unsupported and unreliable, and does not consider

IPR2013-00540
Patent 6,233,314 B1

secondary considerations. PO Mot. to Exc. Occhiogrosso 8-9; PO Resp. 7-8; PO Reply to Opp. to Mots. to Exc. 3. Petitioner counters that Mr. Occhiogrosso “consistently applied his definition of a [person of ordinary skill in the art] throughout his testimony” and, in a supplemental declaration, Mr. Occhiogrosso “made explicit the level of ordinary skill he applied” in Exhibit 1014. Pet. Opp. to Mots. to Exc. 11-12.

Patent Owner’s argument goes more to the weight we should accord Mr. Occhiogrosso’s testimony, rather than its admissibility. It is within our discretion to assign the appropriate weight to the testimony offered by Mr. Occhiogrosso. *See, e.g., Yorkey*, 601 F.3d at 1284. Moreover, Mr. Occhiogrosso provided a supplemental declaration identifying the level of skill in the art and confirming his opinion presented in the earlier declaration (Ex. 1014) in view of the level of skill in the art. *See* Ex. 1053 ¶¶ 12-17, 19. Mr. Occhiogrosso testimony also confirmed his legal understanding of anticipation and obviousness, including secondary considerations. *See* Ex. 1053 ¶¶ 20-26.

Under the totality of these circumstances, we decline to exclude the testimony of Mr. Occhiogrosso. Accordingly, Patent Owner’s Motion to Exclude to Mr. Occhiogrosso’s testimony (Paper 45) is *denied*.

D. Anticipation by Ryan

Petitioner asserts that claims 1 and 2 of the ’314 patent are unpatentable under 35 U.S.C. § 102(e) as anticipated by Ryan. Pet. 11, 13-19. Patent Owner challenges Petitioner’s assertion. PO Resp. 15-37.

IPR2013-00540
 Patent 6,233,314 B1

1. Summary of Ryan

Ryan discloses a telecommunications relay system with a relay interface for communicating between a standard telephone set and a TDD for a hearing impaired person. Ex. 1004, Abstract. Figure 1 of Ryan is a diagram of the telecommunications relay system and is set forth below:

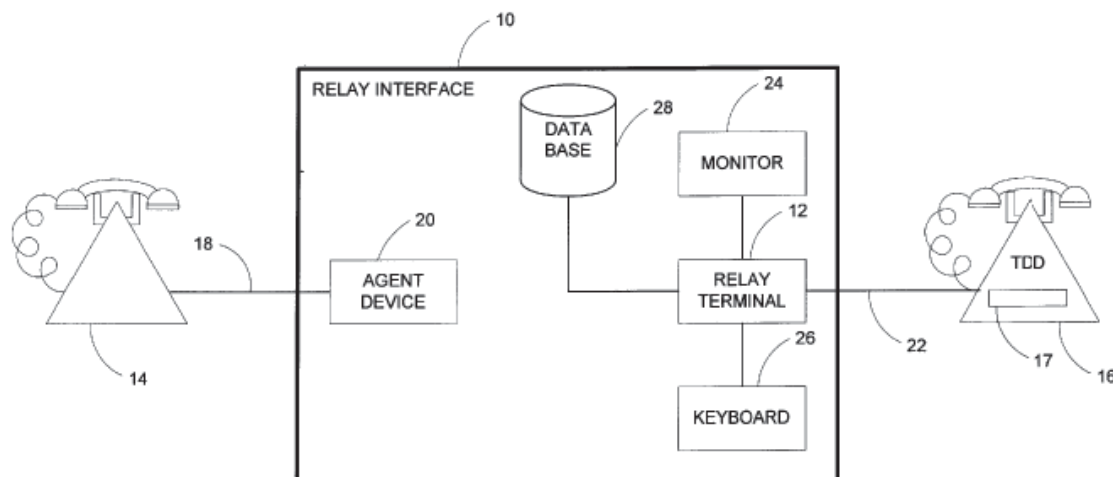


FIG. 1

As shown in Figure 1, Ryan's telecommunications relay interface 10 includes operator/relay terminal 12 and couples standard telephone 14 with TDD 16. Ex. 1004, 3:34-35, 43-51. An operator or relay agent typically is responsible for manipulating relay terminal 12 to relay messages between telephone 14 and TDD 16. Ryan indicates, however, that speech recognition software could be used to automate the relay function so that an operator or relay agent would not be required. *Id.* at 4:19-24. Ryan specifically describes using speech recognition software at agent device 20 to interpret a voice message from a caller at telephone 14 and convert the message from a voice format to a data format. *Id.* at 4:24-27. Ryan further indicates:

IPR2013-00540
Patent 6,233,314 B1

If the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message.

Id. at 4:33-38.

2. *Ryan Is Prior Art*

Ryan issued on September 15, 1998, with a filing date of July 3, 1996, and is entitled to the benefit of the filing date of its parent application, October 18, 1994. Ex. 1004. Thus, Petitioner contends Ryan is prior art to the claims of the '314 patent under 35 U.S.C. § 102(e). Pet. 11. Patent Owner contends that Ryan is not prior art under § 102(e) because it is not enabled. PO Resp. 15-24.

Under § 102(e), Ryan must be enabled prior to the date of invention of the '314 patent. *See* 35 U.S.C. § 102 (Section 102 indicates that “[a] person shall be entitled to a patent unless— . . . (e) the invention was described in . . . (2) a patent granted on an application for patent . . . filed in the United States before the invention by the applicant for patent.”). The '314 patent issued from an application filed on April 8, 1999, which was a continuation of an application filed on September 8, 1997. Accordingly, the earliest possible date of invention of the claims of the '314 patent is presumed to be September 8, 1997.

As an initial matter, we address Patent Owner's assertion of an earlier date of invention for the claims—June 23, 1997. *See* PO Resp. 23-24. Patent Owner relies on a journal entry from August 5, 1997 indicating “the [call assistant] repeats what voice person says” (Ex. 2011 ¶¶ 3-4) and two

IPR2013-00540
Patent 6,233,314 B1

declarations regarding the purchase of commercial software (i.e., IBM ViaVoice). Ex. 2012 ¶¶ 5-10; Ex. 2013 ¶¶ 7-9. The declarations indicate that IBM ViaVoice was released in August 1997 and the patent application was filed shortly thereafter on September 8, 1997. Ex. 2012 ¶¶ 5-10; Ex. 2013 ¶¶ 7-9.

Patent Owner’s earliest proffered evidence dates back only to August 5, 1997, not to June 23, 1997. Ex. 2011 ¶¶ 3-4. Moreover, Patent Owner has not attempted to show diligence in reduction to practice.⁷ Thus, we do not find that Patent Owner has established a date of invention for the claims prior to September 8, 1997.

We now turn to whether the portion of Ryan relied on by Petitioner as disclosing the recited “digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream” was enabled prior to the relevant time. Initially, there is a presumption that a prior art reference is enabled. *See In re Antor Media*, 689 F.3d 1282, 1287–1288 (Fed. Cir. 2012); *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003).

The parties agree that commercial voice recognition software available from Dragon Systems, called “Naturally Speaking” (and

⁷ *See Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577 (Fed. Cir. 1996) (holding that the first to conceive “may date his patentable invention back to the time of its conception, if he connects the conception with its reduction to practice by reasonable diligence on his part, so that they are substantially one continuous act” (internal citation and quotations omitted)).

IPR2013-00540
Patent 6,233,314 B1

sometimes referred to as “Dragon Naturally Speaking”), enabled “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.” PO Resp. 23 (citing Exs. 2011, 2012, and 2013); Reply 4. There is no dispute that Dragon Naturally Speaking was available to the public on June 23, 1997. PO Resp. 23 (citing Exs. 2011, 2012, and 2013); Reply 4. Further, the ’314 patent and its parent indicate Dragon Naturally Speaking was available commercially. Ex. 1021, 5:50-57 (stating “a recently available commercial voice recognition package from Dragon Systems, known as ‘Naturally Speaking,’ is a voice recognition software which will . . . translate to digital text spoken words of a user at the normal speeds of human communication in conversation when operating on conventional modern personal computers”); *see also* Ex. 1021, 5:50-57 (stating the same).

Weighing the *Wands* factors, we determine that at least the state of the prior art (including commercial availability of Dragon Naturally Speaking), the breadth of the claims (“a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream”), and the predictability of the telecommunications art support a finding that Ryan is enabled as of June 23, 1997. *See Wands*, 858 F.2d at 737.

Patent Owner argues that Ryan does not anticipate the claims of the ’314 patent under § 102(e) because Ryan’s disclosure of speech recognition software (Ex. 1004, 4:19-38) was not enabled in 1994, the earliest effective

IPR2013-00540
Patent 6,233,314 B1

filing date claimed by Ryan. PO Resp. 15-22. We do not agree with Patent Owner that, to anticipate under 35 U.S.C. §102(e), a reference must be enabled as of the date of the reference's earliest claimed priority date. *Id.* at 15-22. First, “[e]nablement of an anticipatory reference may be demonstrated by a later reference.” *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1379 (Fed. Cir. 2001). An anticipatory reference under § 102(b) is enabled if it can be shown that the claimed subject matter was in possession of the public before the critical date of the challenged patent. *Id.* Based on well-established law that to anticipate under § 102(b) a reference must be enabled by the critical date, not by the publication date of the reference asserted as prior art, we conclude that to anticipate under § 102(e) a reference must be enabled by the date of invention of the challenged claim. As determined previously, Ryan is enabled by commercial software available to the public on June 23, 1997, which precedes the earliest date of invention for the '314 patent. Thus, Ryan is prior art to the claims of the '314 patent. *See* 35 U.S.C. 102(e) (precluding a patent if the invention of the patent was described in “a patent granted on an application for patent . . . filed in the United States before the invention”).

Second, we are not persuaded by Patent Owner's arguments citing cases concerning (i) the written description requirement of 35 U.S.C. § 112, *In re Wertheim*, 646 F.2d 527 (CCPA 1981), and (ii) the problem of “secret prior art,” *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 U.S. 390 (1926). Patent law now recognizes “secret prior art” in section 102(e), and the Federal Circuit has observed that “[e]ven the ‘secret prior art’ of § 102(e) is ultimately public in the form of an issued patent before it attains prior art

IPR2013-00540
Patent 6,233,314 B1

status.” *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1402 (Fed. Cir. 1997). Further, it is well-settled that the enablement requirement is a separate requirement from the written description requirement. *See, e.g., Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010); *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991). Moreover, “[t]he enablement requirement is often more indulgent than the written description requirement. The specification need not teach explicitly those in the art to make and use the invention; the requirement is satisfied if, given what they already know, the specification teaches those in the art enough that they can make and use the invention without ‘undue experimentation.’” *Amgen*, 314 F.3d at 1334.

Finally, we are not persuaded by Mr. Ludwick’s testimony addressing the inability of technology in 1994 to implement speech recognition technology that kept up with conversation. Resp. 19 (citing Ex. 2010 ¶¶ 25-28). For the reasons discussed previously, Ryan does not need to be enabled as of 1994 to qualify as prior art to the claims of the ’314 patent. Further, we note the language used to describe transcription speeds used in the written description of the ’314 patent—transcription speeds “which will translate to digital text spoken words of a user at the normal speeds of human communication in conversation” (Ex. 1021, 5:54-56)—is not included in claims, which merely recite “the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.”

IPR2013-00540
Patent 6,233,314 B1

For these reasons, Ryan need not be enabled as of 1994 to qualify as prior art to claims 1 and 2 of the '314 patent. We have determined that Ryan was enabled as of June 1997 and, therefore, qualifies as prior art to claims 1 and 2.

3. Analysis of Claims 1 and 2

To support its contention that Ryan anticipates claims 1 and 2, Petitioner relies on analysis as to how each claim limitation is disclosed by Ryan and also relies on declaration testimony by Mr. Occhiogrosso. Pet. 11, 13-19 (citing Ex. 1014). Patent Owner responds, relying on declaration testimony by Mr. Ludwick and others. PO Resp. 24-37 (citing Exs. 2010-2013). Having considered the parties' contentions and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that Ryan discloses, either expressly or inherently, each limitation of claims 1 and 2, and so anticipates claims 1 and 2, for the reasons set forth below.

In particular, Petitioner acknowledges that Ryan does not disclose expressly "a speaker" or "a digital computer connected to a microphone," as recited in claims 1 and 2. Pet. 14-15, 17-18. Petitioner, however, asserts that Ryan inherently discloses those components. Pet. 14-15 (citing Ex. 1014 ¶¶ 28-30), 17-18 (citing Ex. 1014 ¶¶ 28-30). We credit Mr. Occhiogrosso's explanation that a speaker necessarily must be present in Ryan's relay system for a relay agent to "listen to the caller," as Ryan expressly discloses. Ex. 1014 ¶ 30 (citing Ex. 1004, 4, l. 36). Also, we credit Mr. Occhiogrosso's testimony that the recited "a digital computer

IPR2013-00540
Patent 6,233,314 B1

connected to a microphone” necessarily must be present in Ryan’s relay system for it to process the voice of the relay operator, and a digital computer necessarily must be present for Ryan’s relay system to use speech recognition software. Ex. 1014 ¶¶ 28-29 (citing Ex. 1004, 4:14, 33). Thus, we find that Ryan inherently discloses the recited “a digital computer connected to a microphone” and “a speaker.”

We also find that Ryan expressly discloses the recited modem in describing “a personal computer with communications software and a modem.” Ex. 1004, 1:29-31; *see also* Pet. 16, 19 (citing Ex. 1004, 1:29-31, 53-59; 7:66-8:10).

A central dispute between the parties is whether Ryan discloses “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in claims 1 and 2. *Compare* Pet. 15-16, 18-19 *with* PO Resp. 24-37.

Petitioner contends this limitation is disclosed by Ryan’s relay interface system in which a relay agent is responsible for relaying messages between phone 14 and TDD 16. Pet. 18 (citing Ex. 1004, 4:19-38). We agree with Petitioner that Ryan’s description of “speech recognition software . . . employed at [relay agent] device 20 [and] specifically designed to recognize the voice of particular relay agents” discloses the recited “digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant.” *See* Pet. 15 (citing Ex. 1004, 4:24-34). We also agree that Ryan’s indication that “if the software is specifically designed to recognize the voice of particular relay agents, the

IPR2013-00540
Patent 6,233,314 B1

accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message” discloses “the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.” *See* Pet. 15 (citing Ex. 1004, 4:33-38) (emphasis omitted).

Patent Owner responds with several arguments that Ryan does not disclose the recited digital computer, none of which we find persuasive. *See* PO Resp. 24-37. Undergirding some of Patent Owner’s contentions is the state of the art of voice recognition technology in 1994. *See* PO Resp. 26 (“[S]peech recognition was not actually used at all in the [telecommunications relay service] field in 1994”); PO Resp. 36-37 (asserting Ryan must be read narrowly in view of the state of the art of telecommunications relay service art in 1994); Ex. 2010 ¶¶ 24-30 (Mr. Ludwick submitting that Ryan does not contain an enabling disclosure of the recited digital computer based on technology available in 1994). The state of the art of the relevant technology in 1994, however, has limited probative value. Rather, the state of the art of the relevant technology in September 1997, the date of invention of the subject matter claimed in the ’314 patent, is of greater significance. *See* 35 U.S.C. § 102(e) (finding subject matter unpatentable if the “the invention was described in [a reference] *before the invention*”) (emphasis added). As noted previously, there is no dispute about the state of voice recognition technology as of June 23, 1997, when Dragon Naturally Speaking was released.

IPR2013-00540
Patent 6,233,314 B1

Patent Owner contends that Ryan does not disclose the recited digital computer because the claims require voice recognition software to be running or stored on the call assistant's workstation. PO Resp. 25. As discussed above, we disagree with Patent Owner's implicit construction of "the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream." For the reasons noted above, we do not construe the limitation to require the voice recognition computer software package to be stored on the computer programmed to use the software package. Thus, we do not agree with Patent Owner's argument because it is not commensurate in scope with the claims.

Moreover, contrary to Patent Owner's contentions, we find Ryan discloses voice recognition software at the location of the call assistant. Ryan indicates "speech recognition software could be employed at device 20," which is included in Ryan's telecommunications relay interface system 10 used by the relay agent. Ex. 1004, 4:24-26; *see also id.* Fig. 1 (showing agent device 20 within telecommunications relay interface system 10). Ryan goes on to state "[i]f the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message." *Id.* at 4:33-38. We do not agree with Patent Owner's assertion that, because Ryan indicates "a terminal" (rather than expressly identifying a particular component shown in Figure 1),

IPR2013-00540
Patent 6,233,314 B1

Ryan's voice recognition software could be located other than on the agent's workstation.

Also, Patent Owner contends that Ryan does not disclose the recited "voice recognition software trained to the voice of the call assistant" because Ryan's software is not trained as required by Patent Owner's interpretation of the required training. Rather, according to Patent Owner, Ryan discloses voice recognition software that is "designed," which means the software is designed in advance of implementation at the source code level and, therefore, the software is not trained. PO Resp. 25-26.

For the reasons noted previously, we do not agree the recited trained voice recognition software precludes training during software design, which Patent Owner acknowledges is disclosed by Ryan. *Id.* at 26-27. Thus, we do not agree with Patent Owner's argument because it is not commensurate in scope with the claims.

Moreover, Patent Owner relies on Mr. Ludwick's testimony asserting Ryan does not teach "voice recognition computer software trained to the voice of the call assistant." PO Resp. 25-27 (citing Ex. 2010 ¶¶ 21-22). We do not find Mr. Ludwick's testimony that Ryan's voice recognition software is "designed to recognize the voice of particular relay agents" to be persuasive because Mr. Ludwick grounded his testimony in the state of the art in 1994, when the date of invention is 1997. *See* Ex. 2010 ¶ 21 (referring to the telecommunications relay service field in 1994), ¶ 22 (noting the needed technology "did not then exist").

Next, Patent Owner, relying on Mr. Ludwick's testimony, contends that Ryan does not disclose the recited "voice recognition software trained to

IPR2013-00540
Patent 6,233,314 B1

the voice of the call assistant,” because Ryan’s “voice recognition software is written specifically to recognize the voices of a collection or group of people, rather than a particular, individual call assistant.” PO Resp. 27-28 (citing Ex. 2010 ¶ 22).

For the reasons noted previously, we do not agree that the claims are limited to voice recognition software trained to one and only one call assistant. Thus, we do not agree with Patent Owner’s argument because it is not commensurate in scope with the claims.

Moreover, we are not persuaded by Patent Owner that a person of ordinary skill in the art would interpret Ryan as only disclosing software written specifically for a group of people (PO Resp. 28). Patent Owner’s argument is unpersuasive because it relies on the level of ordinary skill in the art as reflected in a prior art patent filed in 1994, when the invention date of the challenged claims is September 1997. *See* PO Resp. 28 (citing Ex. 2008, U.S. Patent No. 5,553,119 (“McAllister”) filed on July 7, 1994).

Patent Owner also contends that, at most, Ryan is ambiguous as to the disclosure of a call agent translating the words spoken in voice by the call assistant into a digital text stream, and so does not anticipate claims 1 and 2. PO Resp. 29-37. Patent Owner contends, based on the goals of Ryan to correct errors before displaying words and the context of the passage, that Ryan discloses a relay agent using “revoicing” as an error correction mechanism for individual, unrecognized letters of a word. PO Resp. 32-35; *see* Ex. 1004, Abstract, 4:19-38.

Ryan’s technology is intended to “overcome[] the problem associated with existing telecommunications relay services by providing a system and

IPR2013-00540
Patent 6,233,314 B1

method for correcting mistakes before the message is displayed at the end user's TDD" (i.e., telecommunications device for the deaf). Ex. 1004, 2:35-38 ("Summary of the Invention"). In the above-quoted passage, Ryan describes ways to do so using speech recognition software. One way is automating the relay function so as to eliminate the need for a human operator. *Id.* at 4:19-24. To do so, Ryan describes using speech recognition software to convert the voice message from a caller to text "while providing an error correction feature for words not recognized by the software." *Id.* at 4:24-28. Ryan further describes the error correction feature as having two forms—phonetic spelling of the unrecognized word by the speech recognition software or prompting the caller to spell the unrecognized word. *Id.* at 4:29-33. Ryan describes, in the passage, another way to improve the accuracy of a relay system before the text is displayed at the TDD—if the speech recognition software is designed specifically to recognize the voice of particular relay agents, a relay agent "listen[s] to the caller and repeat[s] the voice message into a terminal adapted to convert the agent's voice message into a data message." *Id.* at 4:33-38.

In contrast to Ryan's description of the error correction by the *caller* spelling letters of an unrecognized word, here Ryan unambiguously describes a relay agent repeating the voice message of the caller and having speech recognition software, designed specifically to recognize the voice of the relay agent, convert the agent's voice message into a data message. Thus, we are not persuaded that Ryan is ambiguous as to its disclosure of translating the words spoken by the call assistant, and we are not persuaded that Ryan discloses only letters (rather than words) being translated.

IPR2013-00540
Patent 6,233,314 B1

For these reasons, we find Ryan discloses the recited “computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” recited in claims 1 and 2.

E. Obviousness over Wycherley and Yamamoto

Petitioner asserts that claims 1 and 2 of the ’314 patent are unpatentable under 35 U.S.C. § 103 for obviousness over Wycherley and Yamamoto. Pet. 27-30. Petitioner asserts both Wycherley and Yamamoto qualify as prior art to the ’314 patent under 35 U.S.C. § 102(b). Pet. 8, 11-12. Patent Owner challenges Petitioner’s contentions regarding Wycherley and Yamamoto. PO Resp. 37-52.

1. Yamamoto Is a Printed Publication under 35 U.S.C. § 102(b)

Petitioner asserts that Yamamoto was published in March 1996 and, therefore, qualifies under 35 U.S.C. § 102(b) as prior art to the ’314 patent. Pet. 11. Patent Owner contends that Yamamoto is not prior art because Petitioner has not provided sufficient evidence to show that Yamamoto was a publicly accessible printed publication more than one year prior to September 8, 1997, the earliest effective filing date claimed by the ’314 patent. Mot. to Exc. Yamamoto; Paper 67.

a. Evidence of Public Accessibility

We begin with some procedural background to provide context for the evidence relied on by Petitioner. In April 2014, approximately one month after our Institution Decision, Petitioner served on Patent Owner supplemental evidence in response to Patent Owner’s objections regarding

IPR2013-00540
Patent 6,233,314 B1

the publication date of Yamamoto and, hence, its prior art status. *See* Paper 22, 4; *see also* Paper 63, 3–4 (detailing procedural history). On May 30, 2014, Patent Owner filed its Patent Owner Response, which did not challenge the sufficiency of Petitioner’s evidence demonstrating the public accessibility of Yamamoto, or otherwise contend that Yamamoto is not prior art to the ’314 patent under 35 U.S.C. § 102(b). Paper 30; *see* Paper 63, 4. Rather, Patent Owner waited an additional three months, until August 26, 2014, in its Motion to Exclude Evidence, to challenge the sufficiency of Petitioner’s evidence regarding the public accessibility of Yamamoto. Paper 46; *see* Paper 63, 4.

Petitioner then moved to submit supplemental information under 37 C.F.R. § 123(b), including a transcript of a videotaped interview with Mr. Seiichi Yamamoto, the first named author of the Yamamoto reference. Paper 52; Ex. 2017 (Videoconference Deposition of Seiichi Yamamoto, Aug. 20, 2014) (“Yamamoto transcript”). We granted the motion, and permitted the parties to file supplemental briefing regarding the public accessibility of Yamamoto, including the admissibility of the Yamamoto transcript. *See* Paper 63, 10–11; Paper 65 (Petitioner’s Additional Briefing); Paper 67 (Patent Owner’s Response to Additional Briefing); Paper 68 (Petitioner’s Reply to Patent Owner’s Response to Additional Briefing).

We now turn to the evidence regarding the public accessibility of Yamamoto. The first page of Yamamoto indicates it was a paper presented at the Proceedings of the Acoustical Society of Japan Spring 1996 Research Presentation Conference in March 1996. Ex. 1006. In support of its contention that Yamamoto was publicly accessible in March 1996, Petitioner

IPR2013-00540
Patent 6,233,314 B1

relies primarily on the transcript of the interview with Mr. Yamamoto, in which the parties questioned Mr. Yamamoto regarding the presentation and distribution of the paper at the conference. *See* Ex. 2017. This interview was conducted in connection with the related district court proceeding, *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.). *See* Ex. 2017, 1.

Pursuant to stipulation of the parties, both parties had the opportunity to ask Mr. Yamamoto questions at the interview, an interpreter was present to translate Mr. Yamamoto's testimony, and a court reporter made a stenographic record of the English portion of the interview. *See* Ex. 1062 (Stipulation Regarding Seiichi Yamamoto) ¶¶ 1, 3. The parties also stipulated that the stenographic record of the interview would be treated as sworn deposition testimony in the district court proceeding and, “[w]ith respect to other proceedings, the stenographic record will be treated as a sworn deposition taken in Western District of Wisconsin Case Nos. 13-cv-346 and 14-cv-66 at which both parties appeared and had the opportunity to question the witness.” *Id.* ¶ 5.

Patent Owner contends the Yamamoto transcript should be excluded as evidence because the parties did not agree it could be used in this proceeding. Paper 67, 5–6. To the contrary, the parties' stipulation provides that “[t]he use and admissibility of the stenographic record in any other proceedings will be governed by the rules in effect with respect to such other proceeding.” Ex. 1062 ¶ 5. Thus, the parties agreed that the Yamamoto transcript may be used in this *inter partes* review to the extent permitted by our rules.

IPR2013-00540
Patent 6,233,314 B1

Patent Owner argues that Board rules require exclusion of the Yamamoto transcript because Mr. Yamamoto was not sworn and did not sign the transcript, and because Petitioner failed to provide advance notice to the Board of its intent to take a foreign language deposition. Paper 67, 6 (citing 37 C.F.R. § 42.53(a), (e), (f)). The Yamamoto transcript, however, does not run afoul of the rules cited by Patent Owner because Petitioner seeks to admit the transcript as a deposition taken in the district court proceeding, not as deposition testimony taken in this *inter partes* review proceeding. *See* Paper 68, 1. Moreover, the parties stipulated that the Yamamoto transcript would be treated as sworn deposition testimony taken in the district court. Ex. 1062 ¶ 5.

Patent Owner further contends that the Yamamoto transcript constitutes inadmissible hearsay under the Federal Rules of Evidence, which apply to this proceeding. Paper 67, 7 (citing 37 C.F.R. § 42.62(a); Fed. R. Evid. 801, 802). Petitioner responds that the Yamamoto transcript is admissible as an exception to the rule against hearsay. Paper 68, 1–3. We agree with Petitioner.

First, Rule 804(b)(1) allows the use of former testimony of an unavailable witness if the testimony “(A) was given as a witness at a trial, hearing, or lawful deposition, whether given during the current proceeding or a different one; and (B) is now offered against a party who had . . . an opportunity and similar motive to develop it by direct, cross-, or redirect examination.” Fed. R. Evid. 804(b)(1). By stipulation of the parties, the interview of Mr. Yamamoto was treated as a lawful deposition in the district court proceeding. Ex. 1062 ¶ 5. Also, both parties had the opportunity to

IPR2013-00540
Patent 6,233,314 B1

develop Mr. Yamamoto's testimony and had the same motive as in this proceeding—to determine whether Yamamoto was publicly accessible. *See* Ex. 1062 ¶ 1; Ex. 2017. As we determined previously, Petitioner reasonably concluded, based on Patent Owner's Response (Paper 30) filed on May 30, 2014, that Patent Owner no longer was challenging the prior art status of the Yamamoto reference, and only became aware of Patent Owner's continued challenge when Patent Owner improperly challenged the sufficiency of the Yamamoto reference in its Motion to Exclude filed on August 26, 2014, well after the time for taking testimony in this proceeding. Paper 63, 7. At that point, Petitioner had no reasonable means for obtaining Mr. Yamamoto's testimony for this proceeding. *See* Paper 48, 3 (Petitioner's Motion for Leave to File Supplemental Evidence Regarding Yamamoto). We determine, therefore, that Mr. Yamamoto was unavailable as a witness, *see* Fed. R. Evid. 804(a), and the Yamamoto transcript is admissible under Rule 804(b)(1).⁸

In addition, the Yamamoto transcript is admissible under Rule 807. First, Mr. Yamamoto's videotaped interview, which was stipulated to be sworn deposition testimony in the district court proceeding, and in which Mr. Yamamoto was subject to cross-examination, "has equivalent circumstantial guarantees of trustworthiness." Fed. R. Evid. 807(a)(1). Also, Petitioner offers the Yamamoto transcript as evidence of a material

⁸ We note that the parties stipulated, for purposes of the district court proceeding, that Mr. Yamamoto's testimony would be deemed former testimony under Rule 804(b) and Mr. Yamamoto was deemed unavailable under Rule 804(a).

IPR2013-00540
Patent 6,233,314 B1

fact—the public availability of a prior art reference—and it is more probative on that point than any other evidence Petitioner can obtain through reasonable efforts because Mr. Yamamoto co-authored the Yamamoto reference and presented it at a conference of the Acoustical Society of Japan. *See* Fed. R. Evid. 807(a)(2), (3). Finally, admitting the Yamamoto transcript is in the interests of justice, as it provides as complete a record as possible regarding the public accessibility of the Yamamoto reference. *See* Fed. R. Evid. 807(a)(4); *see also* Paper 63, 8 (determining that submission of the Yamamoto transcript is in the interests of justice).

Finally, we are not persuaded by Patent Owner’s argument that the Yamamoto transcript should be excluded under Federal Rules of Evidence 602, 603, and 604. Mr. Yamamoto’s testimony indicates that he was present at the conference at which his paper was presented and had personal knowledge of the distribution of the paper, as required by Rule 602. *See* Ex. 2017. As for Rules 603 and 604, requiring an oath or affirmation by a witness and interpreter, respectively, they do not require exclusion of the Yamamoto transcript because the parties stipulated that it would be treated as sworn deposition testimony. *See* Ex. 1062 ¶ 5.

b. Yamamoto Was Publicly Accessible in March 1996

Under 35 U.S.C. § 102(b), a person is not entitled to a patent if “the invention was . . . described in a printed publication . . . more than one year prior to the date of the application for patent.” “The statutory phrase ‘printed publication’ has been interpreted to mean that before the critical date the reference must have been sufficiently accessible to the public

IPR2013-00540
Patent 6,233,314 B1

interested in the art; dissemination and public accessibility are the keys to the legal determination whether a prior art reference was ‘published.’” *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1568 (Fed. Cir. 1988)). The determination of whether a reference qualifies as a printed publication “involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public.” *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004).

In the present case, based on the circumstances surrounding the presentation and dissemination of the Yamamoto reference, we conclude that Yamamoto was publicly accessible in March 1996, more than one year before September 8, 1997, the earliest effective filing date of the claims of the ’314 patent. As indicated on the first page of the reference, the Yamamoto reference was presented at the March 1996 Research Presentation Conference of the Acoustical Society of Japan. Ex. 1006, 1. Mr. Yamamoto’s testimony, which we find credible, confirms that he gave an oral presentation of the paper at Special Session A of the conference on March 26, 1996. Ex. 2017, 6:8-23, 13:23-14:3. According to Mr. Yamamoto’s estimate, 100 to 150 people attended his presentation of the paper. *Id.* at 13:23–14:3.

The Acoustical Society created a book containing all the papers presented at the conference, including the Yamamoto paper. *Id.* at 8:12-23, 12:24–13:10, 15:18–19. Conference attendees were able to purchase a copy of the book at the time of registration. *Id.* at 13:8-10, 14:17-21. Beginning on the first day of the conference, copies of the book were “piled up on the

IPR2013-00540
Patent 6,233,314 B1

registration desk for purchase, for anyone who wished to purchase.” *Id.* at 16:19–23. According to Mr. Yamamoto, many of his friends who attended the conference purchased a copy of the book. *Id.* at 9:18–10:2, 15:11–17. He also made the paper available to anyone who asked for a copy, and he recalls providing copies to subordinates of Mr. Fujioka, his co-author, though he does not recall the precise timing. *Id.* at 14:8–13, 16:6–14.

The facts of this case are similar to those in *MIT v. AB Fortia*, 774 F.2d 1104 (Fed. Cir. 1985). In that case, our reviewing court concluded that a paper that had been presented orally at a conference attended by 50 to 500 interested persons of ordinary skill in the art, and had been disseminated to at least six persons, was a printed publication for prior art purposes. *Id.* at 1109. Similarly, Mr. Yamamoto orally presented his paper to 100 to 150 persons of ordinary skill in the art, and many conference attendees received a copy of the book containing the paper. Ex. 2017, 9:18-10:2, 13:23-14:3, 15:11-17.

Patent Owner argues that without a detailed analysis of factors such as the length of time the paper was displayed at a conference, the expertise of its target audience, and the expectations regarding and ease with which the material would be copied, Yamamoto cannot be considered prior art. Paper 67, 7–8 (citing *In re Klopfenstein*, 380 F.3d at 1350). Those factors, however, are relevant when determining the public accessibility of a reference that was displayed at a conference without distribution to the public. *In re Klopfenstein*, 380 F.3d at 1350. In contrast, the Yamamoto reference was included in a book of papers presented at the Acoustical Society conference that was available for purchase by all conference

IPR2013-00540
Patent 6,233,314 B1

attendees, and actually was purchased by many attendees. Ex. 2017, 9:18-10:2, 12:24-13:10, 15:11-19.

Patent Owner also contends that the distribution of the Yamamoto reference does not show it was accessible publicly because there is no evidence that it occurred among people in the interested public. Paper 67, 8-9. Although Mr. Yamamoto could not recall if the Acoustical Society of Japan's March 1996 conference was open to non-Society members, Ex. 2017, 7:23-8:11, attendance by at least 100 to 150 Society members is sufficient to show the Yamamoto reference was available to persons interested in the subject matter of the paper, voice recognition applications in communication systems. This case is distinguishable from those cited by Patent Owner, which involve papers posted online for a small, closed group of specialists. See Paper 67, 8-9 (citing *SRI Int'l Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1197 (Fed. Cir. 2008); *Samsung Electronics Co. v. Rembrandt Wireless Techs., LP*, 2014 WL 4537478, at *5, IPR2014-00515 (PTAB Sept. 9, 2014)).

For these reasons, based on the facts and circumstances regarding the presentation and dissemination of the Yamamoto reference, we determine that Yamamoto was publicly accessible in March 1996. Yamamoto,

IPR2013-00540
Patent 6,233,314 B1

therefore, qualifies as a printed publication that is available as prior art to claims 1 and 2 of the '314 patent.⁹

2. *Summary of Wycherley*

Wycherley describes a system for a relay service for establishing a telephone call between a hearing person and a hearing-impaired person. Ex. 1002, 1:6-10. To reduce the time a service attendant is involved in such a telephone call, Wycherley's relay system uses text-to-speech processing and, on a limited basis, automatic speech recognition. *Id.* at Abstract. Wycherley's relay system includes Automatic Speech Recognition (ASR) units, which may be software that is available commercially and trained using a voice template, enabling the voice processor to recognize each word uttered by the speaker in a call. *Id.* at 3:59-60; 4:26-29, 35-56. In the event of excessive translation errors by the automated translation of the hearing person's words, Wycherley's relay system transfers the telephone call to a call attendant, who "may request that the speaker repeat the substance of his or her response" and type the words spoken by the hearing person for transmission to the hearing impaired person's TDD terminal. *Id.* at 5:42-47; *see id.* at 5:1-53.

⁹ Because we conclude that Yamamoto was publicly accessible in March 1996, we need not address Petitioner's argument and evidence regarding public accessibility in May 1996, when Petitioner asserts that the book containing Mr. Yamamoto's paper was received by the Japan Science and Technology Agency. *See* Paper 65, 6.

IPR2013-00540
Patent 6,233,314 B1

3. *Summary of Yamamoto*

Yamamoto describes tests of voice recognition systems. Ex. 1006, 34-36. Along with other examples, Yamamoto describes a test with an operator assistance system for international calling, noting a preliminary step in an operator assistance system for international calling is “voice recognition of an operator repeating the question from the [international calling] user” to increase efficiency. *Id.* at 35, § 3.2.

4. *Claims 1 and 2*

To support its contentions that claims 1 and 2 would have been obvious over Wycherley and Yamamoto, Petitioner relies on analysis provided with respect to the references and the declaration testimony of Mr. Occhiogrosso. Patent Owner responds, relying on declaration testimony by Mr. Ludwick and others. PO Resp. 24-37 (citing Exs. 2002, 2004, 2005, and 2010). Having considered the parties’ contentions and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 2 are unpatentable for obviousness over Wycherley and Yamamoto for the reasons set forth below.

Petitioner relies on Wycherley as teaching or suggesting the speaker, microphone, and modem recited in claims 1 and 2. *See* Pet. 28; *id.* at 20-26. Petitioner relies on a combination of Wycherley and Yamamoto for teaching or suggesting “a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in

IPR2013-00540
Patent 6,233,314 B1

claims 1 and 2. As acknowledged by Petitioner, Wycherley's relay service uses "caller-specific templates to implement speaker-dependent voice recognition directly on the voice of the unimpaired caller." Pet. 27 (citing Ex. 1002, 3:43-4:56).

Petitioner further relies on Wycherley for disclosing a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of *the hearing caller* (rather than trained to the voice of the call assistant, as recited in claims 1 and 2) to translate the words spoken in voice by *the hearing caller* (rather than the call assistant) into a digital text stream. In combination with Wycherley's teaching of a computer programmed for the caller, Petitioner relies on Yamamoto's description of an international call assistance system as teaching the recited call assistant. *See* Pet. 27-30. Specifically, Petitioner relies on Yamamoto's description of an international call assistance system that uses "voice recognition of an operator restating the question from the [international calling] user" as teaching or suggesting "the computer programmed to use a voice recognition computer software package" to translate the voice of the call assistant. *Id.* (emphasis omitted). Thus, Petitioner contends the combination of Wycherley and Yamamoto teaches or suggests "a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," as recited in claims 1 and 2.

IPR2013-00540
Patent 6,233,314 B1

Petitioner, relying on Mr. Occhiogrosso for support, indicates both Wycherley and Yamamoto “involve the use of voice recognition to increase the efficiency of operator assisted telephone services” and contends “it would have been obvious to incorporate *Yamamoto*’s intermediate re-voicing solution into *Wycherley* during situations where, like *Yamamoto*, full automation was not practical.” Pet. 28 (citing Ex. 1014 ¶ 42).

We are persuaded that Wycherley teaches or suggests a speaker, microphone, and modem as recited in claims 1 and 2. *See* Pet. 28; *id.* at 20-26. Wycherley describes an attendant console at which an attendant listens and depicts headsets connected to attendant terminals 220 (Ex. 1002, 1:31-37; Fig. 1), which teaches or suggests a speaker. Wycherley describes that the attendant transmits an oral version of a displayed text message transmitted by a hearing-impaired person (*id.* at 1:27-37), which teaches or suggests a microphone. Wycherley’s Automatic Speech Recognition (ASR) unit includes modem 305 for transmission of digitized words to the TDD user (*id.* at 5:13-14; Fig. 1 (depicting modem 305 in an ASR unit)). Wycherley further describes, after transmitting to the hearing person an oral version of a displayed text message transmitted by a hearing-impaired person, the attendant at the console “listens to” the hearing person’s oral response. *Id.* at 1:31-37. Thus, we are persuaded that Wycherley teaches or suggests “receiv[ing] voice communications from the telephone system and transmit[ing] those voice communications to the ear of the call assistant.”

We also are persuaded that Petitioner’s proposed combination of Wycherley’s relay service that uses text-to-speech processing and automatic speech recognition with Yamamoto’s voice recognition system used to

IPR2013-00540
Patent 6,233,314 B1

provide operator assistance would have taught or suggested to a person of ordinary skill in the art “a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in claims 1 and 2. Thus, we conclude that the teachings of Wycherley and Yamamoto in combination would have suggested the subject matter of claims 1 and 2 as a whole to one of ordinary skill in the art.

We also determine that Petitioner has articulated sufficient reasoning with some rational underpinning to support the legal conclusion that the subject matter of the claims would have been obvious to one of ordinary skill in the art in view of the teachings of Wycherley and Yamamoto as combined in the manner proposed by Petitioner. *See KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). As noted by Petitioner (Pet. 28), both references disclose using voice recognition systems to increase the efficiency of operator-assisted telephone services. *See* Ex. 1002, 3:43-57; Ex. 1006, 35; *see also* Ex. 1014 ¶ 42. We agree that, at the time of the invention in 1997 and in view of the commercial availability of Dragon Naturally Speaking, it would have been obvious to one skilled in the art to mix and match the teachings of voice recognition systems used in operator-assisted telephone services as a whole to arrive at the claimed invention, because the prior art shows a person of ordinary skill could predictably use known elements according to their established functions and address a common problem—increasing the efficiency of operator assisted telephone services. *See KSR*, 550 U.S. at 416 (stating “[t]he combination of

IPR2013-00540
Patent 6,233,314 B1

familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results”), 420 (indicating “[u]nder the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed”).

We first turn to Patent Owner’s contention that Wycherley and Yamamoto do not teach the subject matter of the claims—particularly, the recited “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.” PO Resp. 38-44.

Patent Owner contends that Wycherley does not disclose use of voice recognition software that has been trained to the call assistant’s voice, but rather trained to the caller. Patent Owner contends that Yamamoto, rather than facilitating communication between a hearing person and a hearing-impaired person, only provides examples of single word speech recognition and speech recognition software used for database information retrieval tasks. Patent Owner asserts that Yamamoto does not disclose the subject matter of claims 1 and 2 because the claims require “a real-time continuous speech recognition application” and require that the call assistant “repeats . . . everything” the caller says. PO Resp. 40, 42. Patent Owner further indicates Yamamoto is unsuitable to perform the subject matter of the claimed subject matter because Yamamoto describes (i) speech recognition only for database retrieval tasks, (ii) word spotting voice recognition, (iii) using isolated word recognition because it recognizes continuous speech

IPR2013-00540
Patent 6,233,314 B1

recognition is not yet commercially viable, and (iv) a continuous voice recognition system as being only able to identify a restricted set of responses.

The pertinent question, however, is whether the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art in view of the combined references, not whether the references in the asserted combination individually teach the subject matter of claims 1 and 2. 35 U.S.C. § 103(a); *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“the test [for obviousness] is what the combined teachings of the references would have suggested to those of ordinary skill in the art”). Patent Owner’s arguments in large measure amount to attacks on Wycherley and Yamamoto individually, without sufficient consideration of the combination of Wycherley and Yamamoto, an approach we find unpersuasive. Patent Owner’s arguments regarding Yamamoto unduly focus on specific, isolated capabilities described in Yamamoto without addressing what those capabilities, in combination with Wycherley’s relay with voice recognition software trained to the caller’s voice, would have suggested to one of ordinary skill in the art at the time of the invention of the ’314 patent.

Notably, Yamamoto describes “a continuous speech recognition system driven by a context-free grammar” and describes an operator assistance system that uses voice recognition of an operator by repeating words heard from a caller. Ex. 1006, 34-35. Further, Dragon Naturally Speaking was available commercially in June 1997 before the invention in September 1997. Thus, we credit the testimony of Petitioner’s declarant, Mr. Occhiogrosso, that that these features would have been known in

IPR2013-00540
Patent 6,233,314 B1

September 1997 to one of ordinary skill in the art in view of the teachings of Wycherley and Yamamoto. Pet. 28; Ex. 1014 ¶ 38-43.

In challenging the combination of Wycherley and Yamamoto, Patent Owner further contends, with support of Mr. Ludwick, that a person of ordinary skill would not have considered Wycherley because (i) continuous speech recognition technology did not exist in 1990, when the application that issued as Wycherley was filed, (ii) some implemented aspects of Wycherley's relay were "disliked by customers," and (iii) Wycherley teaches away from designing a relay employing revoicing. PO Resp. 44-47.

Mr. Ludwick's testimony regarding the state of the art in 1990 has little probative value because the time of the invention is September 1997, as discussed previously. *See* 35 U.S.C. § 103(a) ("A patent may not be obtained . . . if the differences between the subject matter sought to be patented 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.") (emphasis added). Further, as discussed previously, continuous speech recognition software was known by the invention date of claims 1 and 2 in 1997.

Nor do we agree with Patent Owner that Wycherley teaches away from the claimed invention. Patent Owner has not identified where Wycherley criticizes, discredits, or otherwise discourages "us[ing] a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," as recited in claims 1 and 2. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004).

IPR2013-00540
Patent 6,233,314 B1

Moreover, Mr. Ludwick's statements concerning customer dislike of some features of an implementation of Wycherley's relay are not persuasive that a person of ordinary skill in the art would not look to Wycherley. First, Patent Owner has not identified the aspect of the implementation of Wycherley's relay that was less desirable than the claimed invention. Second, even if some aspect of the implementation of Wycherley's relay was less desirable than the claimed invention, that, in itself, is insufficient to teach away from the purportedly inferior alternative of Wycherley unless the disclosure criticizes, discredits, or otherwise discourages that alternative. *Cf. Fulton*, 391 F.3d at 1200 (“a finding that the prior art as a whole suggests the desirability of a particular combination need not be supported by a finding that the prior art suggests that the combination claimed by the patent applicant is the preferred, or most desirable, combination”). Thus, we are not persuaded that Wycherley teaches away from the subject matter recited in claims 1 and 2.

Further, Patent Owner contends that Yamamoto teaches away because Yamamoto states that “continuous speech and spontaneous speech recognition [was still] not yet commercially viable.” PO Resp. 49 (citing Ex. 1006, 33; Ex. 2010 ¶ 51). We are not persuaded. First, as noted previously, we do not agree that Yamamoto indicates that “recognition of continuous speech and spontaneous speech recognition is not yet commercially viable” in all contexts. Rather, we have determined that Yamamoto teaches particular techniques—word spotting—are useful in contexts in which “recognition of continuous speech and spontaneous speech recognition is not yet commercially viable.” Ex. 1003 at 33. Although this

IPR2013-00540
Patent 6,233,314 B1

indicates that such technology is not viable in some situations, this does not indicate the technology is not viable commercially in all contexts.

Moreover, Yamamoto indicates “[v]oice-recognition systems [and] voice-recognition software . . . have arrived at a usable state” (Ex. 1006, 33), which further undercuts Patent Owner’s position that voice recognition technology is not viable commercially. Yamamoto also indicates “a variety of voice recognition application systems in communication networks are also becoming commercially available” (*id.*), which further undercuts Patent Owner’s position that voice recognition technology is not viable commercially. Thus, we do not agree Yamamoto criticizes, discredits, or otherwise discourages—and so teaches away—from the claimed subject matter.

According to Patent Owner, Yamamoto does not teach how to incorporate automatic speech recognition into real time telephone communication between users. PO Resp. 48. Yamamoto, however, need not teach how to incorporate automated speech recognition into real-time telephone communication between users. A determination of obviousness is based not on teaching bodily incorporation of parts from one disclosed system into another, but, as noted previously, on what the combined teachings would have suggested to one with ordinary skill in the art. *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012); *Keller*, 642 F.2d at 425.

Nor are we persuaded that automated speech recognition, enabled by Dragon Naturally Speaking in 1997, would have been uniquely challenging or otherwise beyond the level of ordinarily skilled artisans to combine with Wycherley’s relay system at the time the invention was made in August or

IPR2013-00540
Patent 6,233,314 B1

September 1997. *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007). Indeed, the '314 patent describes the use of a voice recognition software, such as Dragon Naturally Speaking, but does not describe the technical details of how to incorporate Dragon Naturally Speaking into the computer terminal containing a copy of the software. *See* Ex. 1021, 5:42-57.

Patent Owner further submits Yamamoto is focused “on operated-assisted database tasks,” Yamamoto is unsuitable for a relay application for a conversation between multiple parties, and that modifying Wycherley so that the relay agent repeats the unimpaired user’s words would render Wycherley unsatisfactory for its intended purpose. PO Resp. 47-48. Patent Owner, relying on its declarant, reasons that the use of a relay agent to repeat the caller’s words “would negate Wycherley’s entire premise of providing a more cost efficient relay service by reducing or eliminating the call assistant’s involvement.” PO Resp. 47 (citing Ex. 2010 ¶ 54). We disagree because we credit Mr. Occhiogrosso’s testimony (Ex. 1053 ¶ 60) that augmenting Wycherley’s call assistants with voice recognition software would increase their efficiency, and thus help achieve Wycherley’s goal of minimizing use of call assistants.

In view of the foregoing, we are persuaded that Petitioner has articulated a sufficient reason to support a conclusion of obviousness in view of Petitioner’s combination of Wycherley and Yamamoto. *See* PO Resp. 44-49.

IPR2013-00540
Patent 6,233,314 B1

5. *Secondary Considerations*

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

Notwithstanding what the teachings of the prior art would have suggested to one with ordinary skill in the art at the time of the '314 patent's invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one with ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the following: long-felt but unsolved need, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17; *Leapfrog Enters.*, 485 F.3d at 1162.

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). Thus, to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC*, 57 F.3d at 1580. “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the Patent Owner. *Id.*; *see In re Paulsen*, 30 F.3d at 1482.

IPR2013-00540
Patent 6,233,314 B1

Patent Owner alleges “substantial praise for the inventions claimed in [Patent Owner’s] patents, including the ’314 Patent, the long-felt but unresolved need of the deaf and hard of hearing community, the commercial success of the products and services embodying the invention, and the failure of others to provide a relay service or other solution that provided the benefits of the claimed inventions.” PO Resp. 49-51. For support, Patent Owner proffers declarations by Ms. Brenda Battat (Ex. 2004) and Ms. Constance Phelps (Ex. 2005) describing general innovations of Patent Owner’s CapTel Service and its CapTel phone and describing their benefits to the deaf and hard of hearing community. PO Resp. 50-51; *see* Ex. 2004 ¶¶ 18-19, 25-41.

In an attempt to establish the requisite nexus, Patent Owner relies on a declaration of Mr. Ludwick (Ex. 2002) asserting that it “explain[s], on a feature by feature basis, the nexus between those secondary considerations and the claimed design” and “illustrates, in chart form, that the CapTel system and various models of CapTel phones embody the claims of the present invention.” PO Resp. 51.

Patent Owner’s Response contains no substantive arguments. *Id.* at 50-51. Instead, Patent Owner merely lists various common forms of secondary considerations evidence, without exposition. This does not provide sufficient analysis for us to determine whether Patent Owner has provided adequate evidence of secondary considerations and a nexus between any such evidence and the merits of the claimed invention. Thus, Patent Owner’s broad contentions regarding secondary considerations in its Patent Owner Response do not demonstrate nonobviousness.

IPR2013-00540
Patent 6,233,314 B1

Moreover, Patent Owner's declarations fail to establish a nexus between the merits of the claimed invention and the evidence of secondary considerations. To show a nexus, Patent Owner relies on Mr. Ludwick's declaration, which describes his visit to CapTel, Inc.'s relay center in Madison, Wisconsin. Ex. 2002 ¶ 47. Mr. Ludwick's chart presents his conclusions based on personal observation that the CapTel Service meets each claim limitation of the '314 patent. Ex. 2002 ¶ 48 (pages 28-30). For example, regarding "a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," recited in claims 1 and 2, Mr. Ludwick asserts:

I personally observed that the CapTel Service meets this claim element. I further confirmed this from my own knowledge of CapTel Service. This feature of the CapTel Service relay is present when the Service is used with each of the CapTel Phones and has always been included as part of the CapTel Service.

Ex. 2002 ¶ 48 (page 28).

Because Mr. Ludwick's conclusions are based on personal observations, without sufficient supporting facts or data, his testimony has little probative value. *See In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d at 1368 ("[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations."); *see also* Fed. R. Evid. 702 (providing one may testify in the form of an opinion if the testimony is based on sufficient facts or

IPR2013-00540
Patent 6,233,314 B1

data). As such, Mr. Ludwick's conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention, and so do not establish the requisite nexus between the merits of the claimed invention and the evidence of secondary considerations.

Accordingly, Patent Owner fails to provide sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner's evidence of obviousness against Patent Owner's asserted objective evidence of nonobviousness, we determine that a preponderance of the evidence supports Petitioner's position that claims 1 and 2 would have been obvious over Wycherley and Yamamoto.

III. CONCLUSION

Petitioner has proven, by a preponderance of the evidence, that claims 1 and 2 of the '314 patent are unpatentable under 35 U.S.C. § 102(e) as anticipated by Ryan and are unpatentable under 35 U.S.C. § 103(a) as obvious over Wycherley and Yamamoto.

Patent Owner's Motions to Exclude the testimony of Mr. Occhiogrosso and the Yamamoto reference are *denied*.

IPR2013-00540
Patent 6,233,314 B1

IV. ORDER

Accordingly, it is hereby:

ORDERED that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 2 of U.S. Patent No. 6,233,314 B1 are unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude the testimony of Mr. Occhiogrosso (Paper 45) is denied;

FURTHER ORDERED that Patent Owner's Motion to Exclude the Yamamoto reference (Paper 46) is denied; and

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

IPR2013-00540
Patent 6,233,314 B1

PETITIONER:

Brian W. Oaks
Bryant C. Boren Jr.
Harper S. Batts
Adam F. Smoot
Joseph Gray
BAKER BOTTS L.L.P.
brian.oaks@bakerbotts.com
bryant.c.boren@bakerbotts.com
harper.batts@bakerbotts.com
adam.smoot@bakerbotts.com
joseph.gray@bakerbotts.com

PATENT OWNER:

Michael Jaskolski
Martha Snyder
Nikia L. Gray
Michael J. Curley
QUARLES & BRADY LLP
michael.jaskolski@quarles.com
martha.snyder@quarles.com
nikia.gray@quarles.com
Michael.curley@quarles.com

Trials@uspto.gov
Tel: 571-272-7822

Paper 80
Entered: December 1, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, LLC,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Case IPR2013-00540
Patent 6,233,314 B1

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

BENOIT, *Administrative Patent Judge*.

DECISION
Denying Patent Owner's Request for Rehearing
37 C.F.R. § 42.71

IPR2013-00540
Patent 6,233,314 B1

INTRODUCTION

CaptionCall, LLC (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1 and 2 of U.S. Patent No. 6,233,314 B1 (Ex. 1021, “the ’314 patent”). Paper 2 (“Pet.” or “Petition”). We instituted an *inter partes* review for claims 1 and 2. Paper 8. In our Final Written Decision, we determined that Petitioner had shown, by a preponderance of the evidence, that claims 1 and 2 were unpatentable. Paper 78 (“Final Dec.” or “Final Decision”). Patent Owner, Ultratec, Inc., requests a rehearing of the Final Decision by an expanded panel. Paper 79 (“Req.” or “Request”).

Having considered Patent Owner’s Request, we decline to modify our Final Decision and deny the Request for Rehearing.

ANALYSIS

A request for rehearing must identify specifically all matters the party believes we misapprehended or overlooked, and the place where each matter was addressed previously in a motion, an opposition, or a reply. 37 C.F.R. § 42.71(d). Additionally, Patent Owner, as the party challenging the Final Decision, has the burden of showing the decision should be modified. *Id.*

We first address Patent Owner’s allegations of matters that we misapprehended or overlooked (Req. 1–14). We then address Patent Owner’s allegations of improper panel composition (*id.* at 1, 14–15).

Matters Allegedly Misapprehended or Overlooked

Patent Owner alleges we misapprehended or overlooked matters involving the status of an asserted prior art reference, admission of evidence, claim construction, and evidence of secondary considerations. We address each issue in turn.

IPR2013-00540
Patent 6,233,314 B1

Status of Ryan as Prior Art

In the Final Decision, in response to Patent Owner’s argument that Ryan¹ did not qualify as prior art because it was not enabled (Paper 30, 15–24 (“PO Resp.”)), we determined that Ryan was enabled prior to the date of invention of the challenged patent in 1997 and, therefore, qualified as prior art to the challenged claims. Final Dec. 18–23.

In its Request for Rehearing, Patent Owner argues, as it did in its Patent Owner Response, that for a patent to serve as prior art the patent must be enabled as to its own earliest claimed effective filing date in 1994. Req. 1–4; PO Resp. 15–22. We addressed this argument in the Final Decision and additionally examined the evidence of record as to whether Ryan would have enabled one of ordinary skill in the art to make the invention without undue experimentation prior to the date of invention of the challenged patent. Final Dec. 18–23. We are not persuaded that we overlooked or misapprehended Patent Owner’s prior argument or made an erroneous interpretation of law.

Patent Owner additionally argues that our consideration of Ryan as prior art as of the date of invention of the challenged patent (1997) was “substantially different than the adopted ground” at issue in the *inter partes* review because the Petition (Paper 1) did not discuss this issue. Req. 5 (“The Petition only discussed potential priority dates in 1994 and 1996, not 1997.”).

We disagree. As noted in our Decision to Institute, *inter partes* review was instituted for “[c]laims 1 and 2 as anticipated under 35 U.S.C. § 102 by Ryan.” Paper 8 (“Decision to Institute”), 15 (IV. ORDER).

¹ U.S. Patent No. 5,809,112 (Ex. 1004).

IPR2013-00540
Patent 6,233,314 B1

During the *inter partes* review, Patent Owner argued, in its Patent Owner Response, that Ryan did not anticipate the challenged claims (PO Resp. 15–37), including a challenge to the prior art status of Ryan noted previously (*id.* at 15–22). The Final Decision discussed the instituted ground of anticipation by Ryan and addressed Patent Owner’s assertions, including those regarding the prior art status of Ryan. Final Dec. 16–31.

In a similar vein, Patent Owner argues it should have received express notice “that enablement would be assessed in 1997” so it could submit evidence concerning enablement in 1997. Req. 6. We are not persuaded by this argument. First, Patent Owner expressly argued this issue in a section of its Patent Owner Response titled “Ryan Was Not Enabled At Any Point Before The Date Of Invention Of The [challenged patent].” PO Resp. 23 (Section VIII.B.2); *see id.* (asserting the date of invention of June 23, 1997). Thus, Patent Owner submitted arguments concerning enablement in 1997, the very issue about which Patent Owner now contends it was not informed and so missed the opportunity to submit relevant evidence. Moreover, as noted in our Final Decision, Patent Owner and Petitioner did not dispute that the “re-voicing limitation” was enabled on June 23, 1997, with the release of commercial voice recognition software to the public. Final Dec. 19–20 (citing PO Resp. 23, Reply 4, Exs. 2011, 2012, and 2013). As noted in our Final Decision, public availability of the commercial voice recognition software as of 1997 is corroborated by the challenged patent itself. Final Dec. 20 (quoting Ex. 1021, 5:50–57).

Patent Owner further asserts we overlooked evidence that the invention was conceived and diligently reduced to practice before Ryan was enabled. Req. 5–6 (citing Exs. 2011, 2012, 2013). We did not overlook this

IPR2013-00540
Patent 6,233,314 B1

evidence. Rather, we examined this evidence in our Final Decision and found the evidence insufficient. Final Dec. 19 (“Patent Owner’s earliest proffered evidence dates back only to August 5, 1997, not to June 23, 1997,” when Ryan was enabled); *see id.* at 18–19 (analyzing Patent Owner’s evidence offered in Exhibits 2011, 2012, and 2013).

For these reasons, we are not persuaded that we overlooked or misapprehended Patent Owner’s prior argument or made an erroneous interpretation of law concerning the availability of Ryan as prior art to the challenged claims.

Yamamoto Transcript

Patent Owner contends we circumvented our own rules in admitting the transcript² of a videotaped interview with Mr. Seiichi Yamamoto, the first named author of the Yamamoto reference.³ Req. 6–10; *see* Paper 63 (Decision on Petitioner’s Motion to Submit Supplemental Information). The interview was conducted in connection with a related district court proceeding between the parties. *See* Final Dec. 31. In the district court proceeding, the parties stipulated that the Yamamoto transcript—a stenographic record of the English portion of the interview (questions from both parties and an interpreter’s translation of Mr. Yamamoto’s testimony)—would be treated as sworn deposition testimony in the district court proceeding and, “[w]ith respect to other proceedings, the stenographic

² Ex. 2017 (Videoconference Deposition of Seiichi Yamamoto, Aug. 20, 2014) (“Yamamoto transcript”).

³ Yamamoto is a Japanese language document—Seiichi Yamamoto and Masanobu Fujioka, *New Applications of Voice Recognition*, Proc. JASJ Conf. (March 1996) (Ex. 1005; Ex. 1006 (English language translation)).

IPR2013-00540
Patent 6,233,314 B1

record will be treated as a sworn deposition taken in [the district court proceeding] at which both parties appeared and had the opportunity to question the witness.” Ex. 1062 ¶ 5 (Stipulation Regarding Seiichi Yamamoto). As explained in our Final Decision, we granted Petitioner’s motion to submit the Yamamoto transcript as supplemental information under 37 C.F.R. § 42.123(b) relating to the prior art status of Yamamoto and, after supplemental briefing by the parties, determined the Yamamoto transcript was admissible. Final Dec. 30–35.

Patent Owner argues in its Request for Rehearing that the Yamamoto transcript is inadmissible because it does not satisfy the requirements that all testimony, other than uncompelled direct testimony, must be in the form of a deposition transcript, 37 C.F.R. § 42.53(a), and that the witness shall be sworn, 37 C.F.R. § 42.53(f)(1). Req. 7. Therefore, according to Patent Owner, the Yamamoto transcript was “not taken, sought, or filed in accordance with these regulations [and] is not admissible.” *Id.* (citing 37 C.F.R. § 42.61(a)). Rule 42.53, however, is titled “Taking Testimony” and applies only to testimony taken “during a testimony period set by the Board” for purposes of a particular review proceeding. 37 C.F.R. § 42.53(b); *see also* 37 C.F.R. § 42.53(c) (providing time limits set by the Board); *id.* § 42.53(d) (providing notice requirements). As stated in our Final Decision, Petitioner sought to admit the Yamamoto transcript as supplemental information, not as deposition testimony taken in this *inter partes* proceeding. Final Dec. 31. And based on the parties’ stipulation in district court, we treated the Yamamoto transcript as sworn deposition testimony taken in the district court. *Id.* at 33–35 (citing Ex. 1062 ¶ 5). Petitioner filed the Yamamoto transcript as supplemental information under

IPR2013-00540
Patent 6,233,314 B1

37 C.F.R. § 42.123(b), establishing that the Yamamoto transcript reasonably could not have been obtained earlier and that its consideration was in the interests of justice. Paper 63, 7–8. Therefore, Petitioner’s filing of the Yamamoto transcript complied with Board rules, and we properly relied on it in determining the public accessibility of Yamamoto. *See* Final Dec. 30–35.

Tangentially to its contentions regarding the Yamamoto transcript, Patent Owner contends we improperly admitted Petitioner’s evidence regarding public accessibility of the Yamamoto reference in May 1996. Req. 9 (citing Final Dec. 39; Paper 65, 6). Patent Owner’s contention is inapposite. We determined that the Yamamoto reference was publicly accessible in March 1996, not May 1996. Final Dec. 38. Further, in our Final Decision, we stated that “[b]ecause we conclude that Yamamoto was publicly accessible in March 1996, we need not address Petitioner’s argument and evidence regarding public accessibility in May 1996.” Final Dec. 39 n.9 (citing Paper 65, 6).

Having reviewed Patent Owner’s Request, we are not persuaded we misapprehended or overlooked any matter relating to the admissibility of the Yamamoto transcript or other evidence related to the Yamamoto reference.

Claim Construction

Because the parties articulated different views on how “trained to the voice of the call assistant” should be interpreted relative to the asserted prior art, we analyzed Patent Owner’s implied constructions of the term and Patent Owner’s declarant’s testimony concerning the same. Final Dec. 6–8. In its Request for Rehearing, Patent Owner argues that we “misapprehended claim construction law” in determining software “trained to the voice of the

IPR2013-00540
Patent 6,233,314 B1

call assistant” was not limited to training to the voice of one and only one particular call assistant and did not preclude voice recognition software that is designed or built in advance of implementation at the source code level to the voice of a call assistant. Req. 10–13.

First, Patent Owner contends that we erroneously relied on the Specification’s disclosure of “voice pattern.” Req. 10–11. We disagree that our reliance on the Specification’s “Brief Summary of the Invention,” which indicates “a speech recognition computer program which has been trained to the voice *pattern* of the call assistant,” was improper. *See* Final Dec. 7 (quoting Ex. 1021, 2:45-48 (emphasis added)). Rather, in our Final Decision, we contrasted the Specification’s use of “voice *pattern* of the call assistant” in its “Brief Summary of the Invention” with its use of “a voice recognition software package which is specifically trained to the voice of that *particular* call assistant” in the context of a particular embodiment of the invention shown in Figure 1. Final Dec. 7 (quoting Ex. 1021, 2:45–48, 5:45–48).

Based on the evidence in the Specification (including the Specification’s disclosure of “a voice pattern”), we determined that the Specification did not indicate expressly that the voice recognition software is trained to the voice of only that particular call assistant or otherwise indicate that the voice recognition software is trained for the voice of only one call assistant. Final Dec. 7. We concluded that “we will not limit ‘trained to the voice of the call assistant’ to require training to the voice of only one particular call assistant, because the claim language encompasses the invention as disclosed in the Specification—software trained to a voice

IPR2013-00540
Patent 6,233,314 B1

pattern of a call assistant.” *Id.* at 8 (citing Ex. 1021, 2:41–49 (“Summary of the Invention”)).

We turn next to Patent Owner’s argument in its Request for Rehearing that we erred in concluding that “trained to the voice of the call assistant” does not include a temporal constraint that precludes voice recognition software that is designed or built in advance of implementation at the source code level to the voice pattern of a call assistant. Req. 12–13 (citing Final Dec. 6–7). According to Patent Owner, it did not have an opportunity to address this issue because it was raised after briefing had concluded. Req. 13.

On the contrary, a central dispute between the parties during the *inter partes* review was whether Ryan discloses “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in claims 1 and 2. Final Dec. 24 (citing Pet. 15–16, 18–19; PO Resp. 24–37). As noted in our Final Decision, Patent Owner argued in its Patent Owner Response that Ryan does not disclose the recited “voice recognition software trained to the voice of the call assistant” because Ryan discloses voice recognition software that is “designed.” Final Dec. 27 (citing PO Resp. 25–26). More specifically, according to Patent Owner, Ryan discloses software that is designed in advance of implementation at the source code level and, therefore, the software is not trained to the voice of a call assistant. *Id.* Thus, Patent Owner initially raised in its Patent Owner Response the issue whether “trained to the voice of the call assistant” encompasses software designed in advance of implementation at the source code level. Therefore,

IPR2013-00540
Patent 6,233,314 B1

we do not agree with Patent Owner that it did not have an opportunity to address this issue, which Patent Owner first raised itself.

Along these lines, Patent Owner also asserts in its Request for Rehearing that we overlooked an alleged admission at the Hearing by Petitioner that the claim language inherently includes a temporal constraint that precludes training when the software is designed in advance of implementation at the source code level. Req. 12–13 (citing Paper 77 (Hearing Transcript), 17:3–5). We are not persuaded that we did so. Rather, we considered Petitioner’s statement at the Hearing in light of the evidence of record.

In our Final Decision, we determined that the Specification discloses that the voice recognition software package is trained but does not indicate when or how the training occurs. Final Dec. 7 (citing Ex. 1021, 2:45–48, 5:45–48). We rejected Patent Owner’s argument, relying on its declarant, that software “designed” is not software that is “trained to recognize individual voices” because we found insufficient support for Patent Owner’s contention. Final Dec. 7 (citing PO Resp. 26). As we explained in our Final Decision, Patent Owner’s declarant testified that a person of ordinary skill in the art would not have understood “trained” software to include “designed” software because technology to train software to recognize individual voices did not exist in 1994 and was not used in telecommunications relay service at that time. Final Dec. 7–8 (citing PO Resp. 26; Ex. 2010 ¶¶ 21–22). We weighed this testimony, which relied on capabilities of technology available in 1994, and concluded this testimony had little probative value of the understanding of one of ordinary skill in the art at the time of invention because the year of invention was 1997. Final Dec. 8. The weight we gave

IPR2013-00540
Patent 6,233,314 B1

to Patent Owner's declarant's testimony reflected the parties' agreement that commercial software to train software to recognize individual voices was available in 1997, as discussed previously. *See* Final Dec. 19–20 (citing PO Resp. 23; Reply 4; Exs. 2011, 2012, and 2013). In other words, the understanding of one of ordinary skill as of 1997 was crucial given the shift in technology at that time, and Patent Owner's declarant's testimony was only reflective of the understanding prior to this shift.

Moreover, Petitioner's declarant indicates that one of ordinary skill in the art would have understood that Ryan describes speech recognition software trained to the voice of a call assistant. Ex. 1053 ¶¶ 41–43. The testimony of Petitioner's declarant is supported further by prior art of record that indicates voice recognition software trained to a particular user in relay systems was known. *See* Ex. 1053 ¶ 42 (citing Ex. 1002, 4:37–49). This testimony further undermines Patent Owner's position.

Thus, we do not agree with Patent Owner that we erred by not considering Petitioner's purported "admission" made at the Hearing. Rather, we considered Petitioner's statement in determining that Ryan's description of benefits provided by voice recognition software that "is specifically designed to recognize the voice of particular relay agents" (Ex. 1004, 4:33–38) disclosed the trained software recited in both claims of the '314 patent. *See* Final Dec. 23–30.

For the reasons given, we are not persuaded that we misapprehended claim construction law or that Patent Owner was not provided with an opportunity to address claim construction of "trained to the voice of the call assistant."

IPR2013-00540
Patent 6,233,314 B1

Evidence of Secondary Considerations

Patent Owner alleges that we improperly made a determination of obviousness before separately analyzing Patent Owner's evidence of secondary considerations. Req. 13–14. We disagree. Rather, in Section II.E of our Final Decision, we determined the scope and content of the asserted prior art. Final Dec. 39–40. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). And we discussed the claimed subject matter relative to the asserted prior art, which included identifying differences between the claimed subject matter and the prior art in the context of the ordinary level of skill in the art and included a determination that Petitioner, with support of its declarant, had articulated a sufficient reason to support a conclusion of obviousness. Final Dec. 40–49; *see id.* In Section II.E, we also analyzed Patent Owner's secondary considerations of nonobviousness. Final Dec. 50–53. Only after that discussion of obviousness in Section II.E of nearly fifteen pages did we discuss the ultimate conclusion of obviousness of the claimed subject matter. Final Dec. 53.

Unlike the International Trade Commission in *Apple Inc. v. International Trade Commission*, 725 F.3d 1356, 1365 (Fed. Cir. 2013), cited by Patent Owner in its Request, we considered evidence relating to the *Graham* factors—including objective evidence of secondary considerations presented by Patent Owner—before determining the ultimate issue of obviousness. *Compare* Req. 13 with Final Dec. 39–53; *see Apple*, 725 F.3d at 1365 (“The ITC, however, never mentioned, much less weighed as part of the obviousness analysis, the secondary consideration evidence . . . presented.”). As noted in our Final Decision, we determined that:

IPR2013-00540
Patent 6,233,314 B1

Accordingly, Patent Owner fails to provide sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner’s evidence of obviousness against Patent Owner’s asserted objective evidence of nonobviousness, we determine that a preponderance of the evidence supports Petitioner’s position that claims 1 and 2 would have been obvious over Wycherley and Yamamoto.

Final Dec. 53. Thus, we recognized that the “ultimate conclusion of obviousness is a legal conclusion to be reached after weighing all the evidence on both sides.” *Apple*, 725 F.3d at 1365.

Testimony of Patent Owner’s Declarant

Patent Owner alleges we improperly dismissed Patent Owner’s declarant’s personal observations that secondary considerations of nonobviousness were commensurate in scope with the claimed subject matter. Req. 14. Patent Owner asserts that its declarant’s testimony consisted of personal observations by an expert witness. Req. 14.

As noted in our Final Decision, to show the requisite nexus, Patent Owner relied on its declarant’s testimony describing his visit to CapTel, Inc.’s relay center in Madison, Wisconsin. Final Dec. 52 (citing Ex. 2002 ¶ 47). We found the “conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention, and so do not establish the requisite nexus between the merits of the claimed invention and the evidence of secondary considerations.” Final Dec. 52–53.

We did not dismiss this testimony; rather, we found it insufficient. To illustrate this insufficiency, in our Final Decision, we cited an example of the testimony provided for the disputed limitation “a digital computer

IPR2013-00540
Patent 6,233,314 B1

connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream”:

I personally observed that the CapTel Service meets this claim element. I further confirmed this from my own knowledge of CapTel Service. This feature of the CapTel Service relay is present when the Service is used with each of the CapTel Phones and has always been included as part of the CapTel Service.

Final Dec. 52 (citing Ex. 2002 ¶ 48 (page 28)). We found that, because the declarant’s conclusions were based on personal observations, without sufficient supporting facts or data, his testimony provided little probative value. Final Dec. 52.

We reject Patent Owner’s assertion that, because there is no testimony to the contrary, we must accept its declarant’s “personal observations” on the claimed features being present in the system provided by CapTel Service and thereby conclude a nexus exists. Req. 14. We cited proper authority in the Final Decision for why we gave little probative value to this testimony of Patent Owner’s declarant—such “conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention.” Final Dec. 52 (citing *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”)).

Conclusion

Having reviewed Petitioner’s Request, we are not persuaded we misapprehended or overlooked any argument previously presented.

IPR2013-00540
Patent 6,233,314 B1

Alleged Panel Composition Errors

Patent Owner requests rehearing before an expanded panel and additionally asserts we exceeded our authority by issuing a Final Written Decision “with less than a full panel.” Req. 1, 14–15. Panel composition for an *inter partes* review is specified in 35 U.S.C. § 6(c), which states “[e]ach . . . inter partes review shall be heard by at least 3 members of the Patent Trial and Appeal Board, who shall be designated by the Director.” The Director’s authority under 35 U.S.C. § 6 to designate panels has been delegated to the Chief Judge. *See* Patent Trial and Appeal Board Standard Operating Procedure 1 (Rev. 14) (May 8, 2015) (“PTAB SOP 1”).

As acknowledged by Patent Owner (Req. 14–15), the Final Decision was decided by three administrative patent judges, who are members of the Board. *See* 35 U.S.C. § 6(a) (indicating that administrative patent judges, along with various members of the United States Patent and Trademark Office, constitute the Patent Trial and Appeal Board). The three administrative patent judges were designated by the Chief Judge according to PTAB SOP 1, titled “Assignment of Judges to Merits Panels, Interlocutory Panels, and Expanded Panels.” The Board, therefore, complied with the statutory requirements for panel composition. Accordingly, we did not issue the Final Decision with less than a “full panel,” as Patent Owner contends.

Moreover, the Chief Judge has discretion to designate judges to decide *inter partes* reviews. *See* PTAB SOP 1 at 2 (§ II.D) (“In general, the Chief Judge will designate a judge or judges, as appropriate, for all matters for AIA reviews.”); *see also* *AOL Inc. v. Coho Licensing LLC*, Case IPR2014-00771, slip op. at 2 (PTAB Mar. 24, 2015) (Paper 12)

IPR2013-00540
Patent 6,233,314 B1

(informative) (setting forth that the designation of panel members is within the sole authority of the Chief Judge, as delegated by the Director). Patent Owner's Request, therefore, does not show the composition of the panel that issued the Final Decision was arbitrary, capricious, or an abuse of discretion by the Board.

Patent Owner suggests an expanded panel is warranted to decide the Request in view of the panel composition and various allegations that we misapprehended the law. Req. 1. For the reasons given, Patent Owner does not persuade us that we misapprehended the law or the panel of three judges was deficient. Further, the Board's procedures provide examples of reasons for expanding a panel, none of which apply here. PTAB SOP 1 at 3 (§ III.A). For example, an expanded panel may be appropriate when "serious questions have been raised about the continuing viability of an apparently applicable precedential decision of the Board, or a panel of the Board renders a decision that conflicts with a precedential decision of the Board or an authoritative decision of the Board's reviewing courts." *Id.* Patent Owner's Request does not show a conflict or other reason that weighs in favor of panel expansion. Even so, the panel informed the Chief Judge, who has authority to expand a panel, of Patent Owner's request, and the Chief Judge declined to expand the panel. *See* PTAB SOP 1 at 4 (§ III.B). ("The Chief Judge will determine when an expanded panel is to be designated."); *see also Apple Inc. v. Rensselaer Polytechnic Inst.*, Case IPR2014-00319, slip op. at 2 n.1 (PTAB Dec. 12, 2014) (Paper 20) (indicating only the Chief Judge, acting on behalf of the Director, may act to expand a panel and panels do not authorize panel expansion).

IPR2013-00540
Patent 6,233,314 B1

ORDER

It is hereby ORDERED that Petitioner's Request for Rehearing is
denied.

IPR2013-00540
Patent 6,233,314 B1

PETITIONER:

Brian W. Oaks
Bryant C. Boren Jr.
Harper S. Batts
Adam F. Smoot
Joseph Gray
BAKER BOTTS L.L.P.
brian.oaks@bakerbotts.com
bryant.c.boren@bakerbotts.com
harper.batts@bakerbotts.com
adam.smoot@bakerbotts.com
joseph.gray@bakerbotts.com

PATENT OWNER:

Michael Jaskolski
Martha Snyder
Nikia L. Gray
Michael J. Curley
QUARLES & BRADY LLP
michael.jaskolski@quarles.com
martha.snyder@quarles.com
nikia.gray@quarles.com
Michael.curley@quarles.com

Trials@uspto.gov
571-272-7822

Paper 76
Entered: March 3, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, L.L.C.,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Case IPR2013-00541
Patent 5,909,482

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

BENOIT, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

IPR2013-00541
Patent 5,909,482

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6(c). This final written decision is issued pursuant to under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1-15 of U.S. Patent No. 5,909,482 (Ex. 1001; “the ’482 patent”) are unpatentable.

A. Procedural History

CaptionCall, L.L.C. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–15 of the ’482 patent pursuant to 35 U.S.C. §§ 311-319. Paper 1 (“Pet.”). Patent Owner, Ultratec, Inc., did not file a preliminary response. On March 5, 2014, pursuant to 35 U.S.C. § 314(a), we instituted an *inter partes* review for claims 1-15 of the ’482 patent on the following grounds of unpatentability:

Reference(s)	Basis	Challenged Claims
Ryan ¹	§ 102(e)	1 and 5
Wycherley ² and Yamamoto ³	§ 103(a)	1 and 5
Wycherley, Yamamoto, and Jones ⁴	§ 103(a)	2, 7, and 8

¹ U.S. Patent No. 5,809,112 (Ex. 1004) (“Ryan”).

² U.S. Patent No. 5,163,081 (Ex. 1002) (“Wycherley”).

³ Seiichi Yamamoto & Masanobu Fujioka, *New Applications of Voice Recognition*, Proc. JASJ Conf. (March 1996) (Ex. 1005). Unless indicated otherwise, all subsequent citations to Yamamoto refer to its English language translation (Ex. 1006).

⁴ PCT International Publication No. WO95/00946 (Ex. 1008) (“Jones”).

IPR2013-00541
Patent 5,909,482

Reference(s)	Basis	Challenged Claims
Wycherley, Yamamoto, and Choi ⁵	§ 103(a)	3, 10, and 11
Wycherley, Yamamoto, and Vasile ⁶	§ 103(a)	4, 13, and 14
Wycherley, Yamamoto, and Liebermann ⁷	§ 103(a)	6
Wycherley, Yamamoto, Jones, and Liebermann	§ 103(a)	9
Wycherley, Yamamoto, Choi, and Liebermann	§ 103(a)	12
Wycherley, Yamamoto, Vasile, and Liebermann	§ 103(a)	15

Paper 6 (“Inst. Dec.”).

Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 28; “PO Resp.”), and Petitioner filed a Reply (Paper 33; “Reply”). Patent Owner also filed Motions to Exclude Evidence. Paper 43 (“PO Mot. to Exc. Occhiogrosso”); Paper 44 (“PO Mot. to Exc. Yamamoto”). Petitioner filed a combined Opposition (Paper 53; “Pet. Opp. to Mots. to Exc.”) to Patent Owner’s Motions, and Patent Owner filed a Reply to Petitioner’s Opposition (Paper 56; “PO Reply to Opp. to Mots. to Exc.”). Also, Petitioner filed a Motion for Leave to File Supplemental Evidence Regarding Yamamoto (Paper 50), and Patent Owner filed an Opposition to Petitioner’s Motion (Paper 55). In response to the Board’s

⁵ W. Choi et al., *Splitting and Routing Audio Signals in Systems with Speech Recognition*, IBM TECHNICAL DISCLOSURE BULLETIN, Vol. 38, No. 12, 503-04 (December 1995) (Ex. 1009) (“Choi”).

⁶ U.S. Patent No. 5,289,523 (Ex. 1003) (“Vasile”).

⁷ U.S. Patent No. 5,982,853 (Ex. 1010) (“Liebermann”).

IPR2013-00541
Patent 5,909,482

order (Paper 61), Petitioner filed additional briefing (Paper 63) regarding the public availability of Yamamoto. In turn, Patent Owner filed a response (Paper 65), to which Petitioner filed a Reply (Paper 66).

An oral hearing was held on November 19, 2014.⁸

B. Related Proceedings

Petitioner represents that the '482 patent was asserted against its parent company in *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.). Pet. 2. Petitioner also represents that in the same district court proceeding Patent Owner asserted the following patents at issue in *inter partes* reviews—U.S. Patent No. 6,233,314 (Case IPR2013-00540), U.S. Patent No. 7,319,740 (Case IPR2013-00542), U.S. Patent No. 7,555,104 (Case IPR2013-00543), U.S. Patent No. 8,213,578 (Case IPR2013-00544), U.S. Patent No. 6,594,346 (Case IPR2013-00545), U.S. Patent No. 6,603,835 (Case IPR2013-00549), and U.S. Patent No. 7,003,082 (Case IPR2013-00550).

C. The '482 Patent

The '482 patent discusses a way to assist deaf, hard of hearing, or otherwise hearing impaired individuals to use telephones. Ex. 1001, 1:14-17. Conventional assistance uses a device having a keyboard and display,

⁸ This proceeding, as well as IPR2013-00540, IPR2013-00542, IPR2013-00543, IPR2013-00544, IPR2013-00545, IPR2013-00549, and IPR2013-00550 involve the same parties and some similar issues. The oral arguments for all eight reviews were merged and conducted at the same time. A transcript of the oral hearing is included in the record as Paper 75.

IPR2013-00541
Patent 5,909,482

which may be called a text telephone (TT), a teletype (TTY), or a telecommunication device for the deaf (TDD). *Id.* at 1:26-29. A human intermediary facilitates communication between a hearing user and a hearing impaired user by communicating by voice with the hearing user and using a TDD to communicate with the hearing impaired user. *Id.* at 1:60-67. The system of voice-to-TDD communication used by the human intermediary (called an operator or call assistant) is referred to as a relay. *Id.* at 1:60-64.

The '482 patent indicates the effectiveness of relay systems is limited by the speed at which a call assistant can type the words said by the hearing user. *Id.* at 2:8-21. The '482 patent relates to a relay system to improve performance of voice-to-text interpretation for translating between hearing impaired and hearing users. *Id.* at 3:13-16. Instead of typing the hearing user's words, the call assistant speaks those words into a microphone that transmits the voice of the call assistant to a computer with voice recognition software that is trained specifically to the voice of the call assistant. *Id.* at 5:28-47. The computer translates the words of the call assistant to digital text, which is sent to a display of the hearing impaired user. *Id.* at 5:30-64.

D. Illustrative Claims

Claims 1, 7, 10, and 13 are independent claims. Claims 1 and 7 are illustrative of the claims at issue and read as follows:

1. A method of operating a relay system using a call assistant to facilitate communication between a deaf person and a hearing person by telephone comprising the steps of
transmitting the voice of the hearing person when speaking to the ear of the call assistant;

IPR2013-00541
Patent 5,909,482

the call assistant speaking in voice the same words that the call assistant hears spoken by the hearing person into a microphone connected to a digital computer;

the digital computer using voice recognition computer software trained to the voice of the call assistant to translate the words of the voice spoken by the call assistant into a digital text message stream containing the words spoken by the call assistant;

transmitting the digital text message stream created by the computer by telephone connection to a telecommunication device within sight of the deaf person; and

the telecommunication device displaying in visually readable text the words in the digital text message stream.

Id. at 8:4-21.

7. A relay to facilitate communication between a deaf person using a telecommunication device for the deaf and a hearing person through a telephone system and using a call assistant, the relay comprising

a speaker connected to receive voice communications from the telephone system and transmit those voice communications to the ear of the call assistant;

a microphone connected to pickup voice spoken by the call assistant;

a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream;

a modem to transit the digital text stream created by the computer over the telephone system to the telecommunication device for the deaf of the deaf person; and

noise attenuating means responsive to the voice spoken by the call assistant and connected to the speaker to attenuate

IPR2013-00541
Patent 5,909,482

the noise of the voice of the call assistant from the sounds heard
in the ear of the call assistant.

Id. at 8:48-9:2.

II. ANALYSIS

A. 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. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, No. 2014-1301, slip op. at 11–19 (Fed. Cir. Feb. 4, 2015). Under the broadest reasonable construction standard, claim terms are presumed to be 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. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We construe “the digital computer using a voice recognition computer software trained to the voice of the call assistant to translate the words of the voice spoken by the call assistant into a digital text stream containing the words spoken by the call assistant,” recited in independent claim 1, and “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” recited

IPR2013-00541
Patent 5,909,482

in independent claims 7, 10, and 13, in accordance with these principles. We also construe “noise attenuating means” recited in independent claim 7. No other claim terms require express construction.

1. “trained to the voice of the call assistant”

Neither party expressly proposes a construction for “trained to the voice of the call assistant,” recited in each of the independent claims. *See* Pet. 5-6; PO Resp. 9-13; Reply 2. In their dispute over the teachings of the asserted prior art, however, the parties articulate different views in how the term should be construed. Patent Owner construes “trained to the voice of the call assistant” to require training to recognize individual voices (PO Resp. 28-29), presumably trained to the voice of one and only one call assistant and precluding training for a type of speech used by a group of people (such as a regional accent) that could apply to more than one call assistant. Patent Owner also seeks to construe “trained to the voice of the call assistant” as having a temporal constraint so as to preclude training at the time when the voice recognition computer software package is “*designed* in advance of implementation at the source code level.” *Id.* at 27. According to Patent Owner, “trained to the voice of the call assistant” precludes software that is “built to” recognize the voice of a particular agent. *Id.* at 27-28. Petitioner disagrees. Reply 3-4.

The Specification of the ’482 patent does not set forth a special definition for “training.” The Specification, however, in its “Brief Summary of the Invention” indicates “a speech recognition computer program which has been trained to the voice *pattern* of the call assistant.” Ex. 1001, 2:46-48

IPR2013-00541
Patent 5,909,482

(emphasis added). In the context of describing the relay shown in Figure 1, the Specification describes “the call assistant operat[ing] at a computer terminal which contains a copy of a voice recognition software package which is specifically trained to the voice of that *particular* call assistant.” *Id.* at 5:44-47 (emphasis added). The Specification, however, does not indicate expressly that the voice recognition software is trained to the voice of only that particular call assistant or otherwise indicate the voice recognition software is trained for the voice of only one call assistant.

As such, the Specification contemplates software trained to “a voice pattern of the call assistant” as well as software “specifically trained to the voice of [a] particular call assistant.” Further, the Specification indicates, in those passages, that the voice recognition software package is trained but does not indicate when or how the training occurs. *Id.* at 2:46-48, 5:44-47.

Patent Owner, relying on its declarant Mr. Paul W. Ludwick, asserts software “designed” is not software that is “trained to recognize individual voices.” PO Resp. 27. According to Mr. Ludwick, a person of ordinary skill in the art would not have understood “trained” software to include “designed” software because technology to train software to recognize individual voices did not exist in 1994 and was not used in telecommunications relay service at that time. *Id.* (citing Ex. 2010 ¶ 22). We also note here that the technology available in 1994 has little probative value here because the year of invention is 1997 for the reasons discussed below.

IPR2013-00541
Patent 5,909,482

We give claim language its broadest reasonable construction in light of the specification of the patent in which it appears. Thus, we will not limit “trained to the voice of the call assistant” to require training to the voice of only one particular call assistant, because the claim language encompasses the invention as disclosed in the Specification—software trained to a voice *pattern* of a call assistant. Ex. 1001, 2:41-49 (“Summary of the Invention”). Nor will we limit “trained to the voice of the call assistant” to a particular time in which the training must occur or to a particular manner of training that is not found in the claims nor the Specification.

Accordingly, “trained to the voice of the call assistant” does not preclude voice recognition software that is designed or built in advance of implementation at the source code level to the voice pattern of a call assistant. Nor is “trained to the voice of the call assistant” limited to training to the voice of one and only one call assistant.

2. *“digital computer using a voice recognition computer software trained to the voice of the call assistant” and “digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant*

Neither party expressly proposes a construction for “digital computer using a voice recognition computer software trained to the voice of the call assistant,” recited in claim 1, or “digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant,” recited in claims 7, 10, and 13. *See* Pet. 5-6; PO Resp. 9-13; Reply 2. In the dispute over the teachings of the asserted prior art references, however, Patent Owner contends, based on the testimony of

IPR2013-00541
Patent 5,909,482

Mr. Ludwick, that the claimed voice recognition software must be “running on the call assistant’s workstation—e.g., not remotely or virtually running on or from a server or other computer.” PO Resp. 25-26 (citing Ex. 2010 ¶¶ 102-105).

Mr. Ludwick explains that, because the claim requires the call assistant to speak into a microphone connected to the computer programmed to use a voice recognition computer software package and because of advantages of such an arrangement, the claimed software package must reside on the claimed computer to which the microphone is connected. Ex. 2010 ¶¶ 103-105; *see also* PO Resp. 25-26.

Independent claim 1 recites “the digital computer using voice recognition computer software” and claims 7, 10, and 13 each requires the computer “to use a voice recognition computer software package.” These claims do not require expressly the voice recognition computer software to be stored on the computer using the voice recognition computer software or on the computer programmed to use the software package. Patent Owner, based on Mr. Ludwick’s testimony, acknowledges the software package may be stored other than on the call assistant’s computer. PO Resp. 26 (indicating a terminal may be able to transmit a voice signal to be converted to text by a server or other computer located remotely from the call assistant’s computer) (citing Ex. 2010 ¶¶ 106-107). Notably, neither Patent Owner nor Mr. Ludwick addresses sufficiently how a person of ordinary skill in the art would understand the limitation “the digital computer using the voice recognition computer software” or the limitation “digital

IPR2013-00541
Patent 5,909,482

computer . . . programmed *to use*” a software package to require the software package to be stored on the computer using, or programmed to use, the software package.

Thus, we will not construe “the digital computer using voice recognition computer software trained to the voice of the call assistant” or “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant” as requiring the software package to be stored on the computer using, or programmed to use, the software.

3. “*noise attenuating means . . . to attenuate the noise of the voice of the call assistant from the sounds heard in the ear of the call assistant*”

Petitioner asserts “noise attenuating means responsive to the voice spoken by the call assistant and connected to the speaker to attenuate the noise of the voice of the call assistant from the sounds heard in the ear of the call assistant,” recited in independent claim 7, should be construed as a means-plus-function limitation under 35 U.S.C. § 112, sixth paragraph. Pet. 6. Petitioner identifies “noise canceling earphones, a computer with noise canceling sound generation software, or equivalents thereof” as corresponding structure in the Specification. *Id.* (citing Ex. 1001, 6:16-23).

Construing a means-plus-function limitation requires first defining the particular function of the limitation and then identifying, in the specification, the structure that performs the claimed function. *Golight, Inc. v. Wal-Mart Stores Inc.*, 355 F.3d 1327, 1333-34 (Fed. Cir. 2004).

IPR2013-00541
Patent 5,909,482

We agree with Petitioner (Pet. 6) that “noise attenuating means” is a means-plus-function limitation because: (1) the limitation uses the word “means,” (2) the term in the limitation is modified by functional language (“to attenuate the noise of the voice of the call assistant from the sounds heard in the ear of the call assistant”), and (3) the term is not modified by any structure recited in the claim for performing the claimed function. *See Flo Healthcare Solutions, LLC v. Kappos*, 697 F.3d 1367, 1373 (Fed. Cir. 2012). Although the limitation recites “connected to the speaker,” this structure does not perform the claimed function of attenuating noise. *Id.*

The Specification of the ’482 patent discloses earphones 38, which “produce the sound of the remote speaking person in the ear of the call assistant” (Ex. 1001, 5:23-24) and “have noise attenuating capability” (*id.* at 6:18). The Specification also discloses that “computer 42 can be provided with noise canceling sound generation software which would create sound transmitted to the earphone 38 so as to cancel the sounds of the call assistant’s own voice.” *Id.* at 6:20-23. The Specification further indicates that “noise attenuation or cancellation avoids distracting the call assistant, since he or she would then be less distracted by the words that he or she has spoken.” *Id.* at 6:23-26.

As such, the Specification of the ’482 patent discloses that earphones 38 and computer 42 provided with noise canceling sound generation software are structures that perform the function of “noise attenuating means”—that is, the function “to attenuate the noise of the voice of the call assistant from the sounds heard in the ear of the call assistant.”

IPR2013-00541
Patent 5,909,482

For these reasons, in the Decision to Institute, the Board construed “noise attenuating means . . . to attenuate the noise of the voice of the call assistant from the sounds heard in the ear of the call assistant” in claim 7 as follows:

Function: “to attenuate the noise of the voice of the call assistant from the sounds heard in the ear of the call assistant.”

Corresponding structure: earphones 38 or computer 42 provided with noise canceling sound generation software.

Inst. Dec. 7-9. We also determined that “noise attenuating means” includes “noise canceling earphones, a computer with noise canceling sound generation software, or equivalents thereof,” as asserted by Petitioner (Pet. 6). *Id.* at 9.

Neither party challenges our preliminary construction of “noise attenuating means” set forth in our Decision to Institute. *See* PO Resp. 9-13; Reply 2. Having considered whether the construction set forth in the Decision to Institute should be changed in light of evidence introduced during trial, we are not persuaded any modification is necessary. Therefore, we maintain the construction of “noise attenuating means . . . to attenuate the noise of the voice of the call assistant from the sounds heard in the ear of the call assistant,” as indicated above.

B. Principles of Law

To prevail in challenging claims 1-15 of the '482 patent, Petitioner must demonstrate by a preponderance of the evidence that the claims are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

IPR2013-00541
Patent 5,909,482

A claim is anticipated if a single prior art reference either expressly or inherently discloses every limitation of the claim. *Orion IP, LLC v. Hyundai Motor Am.*, 605 F.3d 967, 975 (Fed. Cir. 2010). To establish inherent disclosure, the evidence must show that a feature is necessarily described in the reference. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). To anticipate, a reference also “must enable one of ordinary skill in the art to make the invention without undue experimentation.” *Impax Labs., Inc. v. Aventis Pharm., Inc.*, 545 F.3d 1312, 1314 (Fed. Cir. 2008). To determine whether “undue experimentation” is required, various factors are examined, including (1) the quantity of experimentation; (2) the amount of direction or guidance present; (3) the presence or absence of working examples; (4) the nature of the invention; (5) the state of the prior art; (6) the relative skill of those in the art; (7) the predictability or unpredictability of the art; and (8) the breadth of the claims. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988); *see also Impax Labs.*, 545 F.3d at 1314-15 (indicating the Wands factors should be applied to a determination whether a prior art reference is enabled).

A claim is unpatentable under 35 U.S.C. § 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 of the invention to a person having ordinary skill in the art. *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

IPR2013-00541
Patent 5,909,482

prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). The level of ordinary skill in the art is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

C. Patent Owner's Motion to Exclude Testimony by Mr. Occhiogrosso

Patent Owner seeks to exclude the testimony of Mr. Benedict Occhiogrosso (Exs. 1014, 1053, 2006, 2007, and 2017) on the theory that he is not qualified as an expert under Federal Rule of Evidence 702 (“FRE 702”).^{9,10} PO Mot. to Exc. Occhiogrosso; PO Resp. 5-9. FRE 702 provides that a witness qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion if (a) the expert’s knowledge will help the trier of fact to understand the evidence or to determine a fact in issue, (b) the testimony is based upon sufficient facts or data, (c) the testimony is the product of reliable principles and

⁹ Patent Owner also seeks to *exclude* Mr. Occhiogrosso’s testimony under 37 C.F.R. § 42.65. PO Mot. to Exc. Occhiogrosso 1. Rule 42.65, however, addresses (a) the weight given to expert testimony that does not disclose underlying facts or data on which the opinion is based, (b) the showing required if a party seeks to rely on a technical test or data from such a test, and (c) the exclusion of expert testimony on United States patent law or patent examination practice. As such, Rule 42.65 does not apply to a determination whether to exclude Mr. Occhiogrosso’s testimony.

¹⁰ With some enumerated exceptions, the Federal Rules of Evidence apply to an *inter partes* review. 37 C.F.R. § 42.62.

IPR2013-00541
Patent 5,909,482

methods, and (d) the witness has applied the principles and methods reliably to the facts of the case.

Testimony on the issue of unpatentability proffered by a witness who is not “qualified in the pertinent art” generally is not admissible under FRE 702. *Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1363-64 (Fed. Cir. 2008). In determining who is qualified in the pertinent art under FRE 702, we need not find a complete overlap between the witness’s technical qualifications and the problem confronting the inventor or the field of endeavor. *See SEB S.A. v. Montgomery Ward & Co., Inc.*, 594 F.3d 1360, 1372-73 (Fed. Cir. 2010) (upholding admission of the testimony of an expert who admittedly lacked expertise in the design of the patented invention, but had experience with materials selected for use in the invention); *Mytee Prods., Inc. v. Harris Research, Inc.*, 439 Fed. App’x 882, 886–87 (Fed. Cir. 2011) (non-precedential) (upholding admission of the testimony of an expert who “had experience relevant to the field of the invention,” despite admission that he was not a person of ordinary skill in the art).

Patent Owner contends that, to qualify as an expert under FRE 702, Mr. Occhiogrosso must be a person of ordinary skill in the art, and that Mr. Occhiogrosso is not a person of ordinary skill in the art because “he is an information technology (“IT”) generalist” and does not have “*any* specific experience in the context of [telecommunications relay systems] for the deal and the HOH [hear of hearing].” PO Mot. to Exc. Occhiogrosso 5; *see also id.* at 1-4 (discussing the definition of a person of ordinary skill in

IPR2013-00541
Patent 5,909,482

the art); 5-7 (discussing Mr. Occhiogrosso's experience with respect to these factors). Petitioner responds that Patent Owner's definition of the level of ordinary skill in the art conflates a requirement for skill in the relevant technical art ("telecommunications systems [having] voice-to-text transcription") with skill in one particular commercial sector that applies that technical art ("telecommunications services *specifically* designed for the deaf or hard of hearing"). Pet. Opp. to Mots. Exc. 1, 3-4.

Patent Owner's arguments are unpersuasive at the outset because, to testify as an expert under FRE 702, a person need not be a person of ordinary skill in the art, but rather "qualified in the pertinent art." *Sundance*, 550 F.3d at 1363-64; *SEB*, 594 F.3d at 1372-73; *Mytee*, 439 Fed. App'x at 886-87. Patent Owner's arguments are also unpersuasive because they attempt to constrict the "pertinent art," i.e., the pertinent technology, to a particular subset of individuals who use the pertinent technology, rather than the pertinent technology itself. *See* Pet. Opp. to Mots. to Exc. 4-5 (arguing that the problems in the pertinent art are not "uniquely related" to the deaf and hard-of-hearing).

Moreover, Patent Owner indicates elsewhere that the relevant field of art is telecommunication technologies. *See* PO Resp. 19 n.2 (Patent Owner indicating its declarant "Mr. Ludwick indisputably is [a person of ordinary skill in the art] in telecommunications technologies, which is the relevant field of art" to opine on speech recognition software for use in telecommunication relay service settings). Petitioner similarly indicates the relevant field is telecommunication technologies. Pet. Opp. to Mots. to

IPR2013-00541
Patent 5,909,482

Exc. 6 (“Mr. Occhiogrosso’s qualifications should be analyzed with respect to the pertinent art of telecommunication technologies in which an intermediary facilitates voice-to-text transcription.”).

We agree that the pertinent art is telecommunication technologies. The ’482 patent states that the “present invention relates to the general field of telephone communications.” Ex. 1001, 1:14-15. The ’482 patent focuses on a particular application of that technology: people who need assistance in using telecommunications devices. *Id.* at 1:15-2:8 (describing various prior art assistive technologies). The ’482 patent also summarizes the invention as the use of a speech recognition computer program trained to the voice of the call assistant to translate promptly the words spoken by an intermediary call assistant into a “high speed digital communication message [that] is then transmitted electronically promptly by telephone to a visual display accessible to the” hearing-assisted user. *Id.* at 2:41-52.

The qualifications of Mr. Occhiogrosso, as summarized in his curriculum vitae (Ex. 1015), qualify him to give expert testimony on the subject of telecommunication technologies. He possesses a Bachelor of Science in Electrical Engineering and a Master of Science in Electrical Engineering. Ex. 1015, 2. Mr. Occhiogrosso testifies that he has more than thirty years of experience in the field of telecommunications and information technology, and he has planned, designed, implemented, and managed large scale projects involving wired and wireless communication systems, including transmission of voice and data. Ex. 1014 ¶ 7; *see also* Ex. 1015,

IPR2013-00541
Patent 5,909,482

2-6 (detailing Mr. Occhiogrosso’s enterprise consulting engagements, research and development, and wireless experience).

Moreover, to the extent Mr. Occhiogrosso is more familiar with general telecommunications technology and less familiar with voice-to-text or its application to the deaf or hearing-impaired, or to the extent that Mr. Occhiogrosso’s testimony is inconsistent or unsupported, we weigh Mr. Occhiogrosso’s testimony accordingly, taking into account the extent of his expertise in these areas. *See, e.g., Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (holding the Board has discretion to give more weight to one item of evidence over another “unless no reasonable trier of fact could have done so”); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”).

Patent Owner also contends that Mr. Occhiogrosso’s testimony fails to identify the level of skill in the art in his Declaration (Ex. 1014), fails to give any consideration to what one of ordinary skill in the art would have known or not known, is unsupported and unreliable, and does not consider secondary considerations. PO Mot. to Exc. Occhiogrosso 8-9; PO Resp. 7-8; PO Reply to Opp. to Mots. to Exc. 3. Petitioner counters that Mr. Occhiogrosso “consistently applied his definition of a [person of ordinary skill in the art] throughout his testimony” and, in a supplemental declaration, Mr. Occhiogrosso “made explicit the level of ordinary skill he applied” in Exhibit 1014. Pet. Opp. to Mots. to Exc. 11-12.

IPR2013-00541
Patent 5,909,482

Patent Owner's argument goes more to the weight we should accord Mr. Occhiogrosso's testimony, rather than its admissibility. It is within our discretion to assign the appropriate weight to the testimony offered by Mr. Occhiogrosso. *See, e.g., Yorkey*, 601 F.3d at 1284. Moreover, Mr. Occhiogrosso provided a supplemental declaration identifying the level of skill in the art and confirming his opinion presented in the earlier declaration (Ex. 1014) in view of the level of skill in the art. *See Ex. 1053 ¶¶ 12-17, 19*. Mr. Occhiogrosso's testimony also confirmed his legal understanding of anticipation and obviousness, including secondary considerations. *See id.* ¶¶ 20-26.

Under the totality of these circumstances, we decline to exclude the testimony of Mr. Occhiogrosso. Accordingly, Patent Owner's Motion to Exclude to Mr. Occhiogrosso's testimony (Paper 43) is *denied*.

D. Anticipation by Ryan

Petitioner asserts that independent claim 1 and its dependent claim 5 are unpatentable under 35 U.S.C. § 102(e) as anticipated by Ryan. Pet. 10, 13-17. Patent Owner challenges Petitioner's assertion. PO Resp. 16-38.

1. Summary of Ryan

Ryan discloses a telecommunications relay system with a relay interface for communicating between a standard telephone set and a TDD for a hearing impaired person. Ex. 1004, Abstract. Figure 1 of Ryan is a diagram of the telecommunications relay system and is set forth below:

IPR2013-00541
 Patent 5,909,482

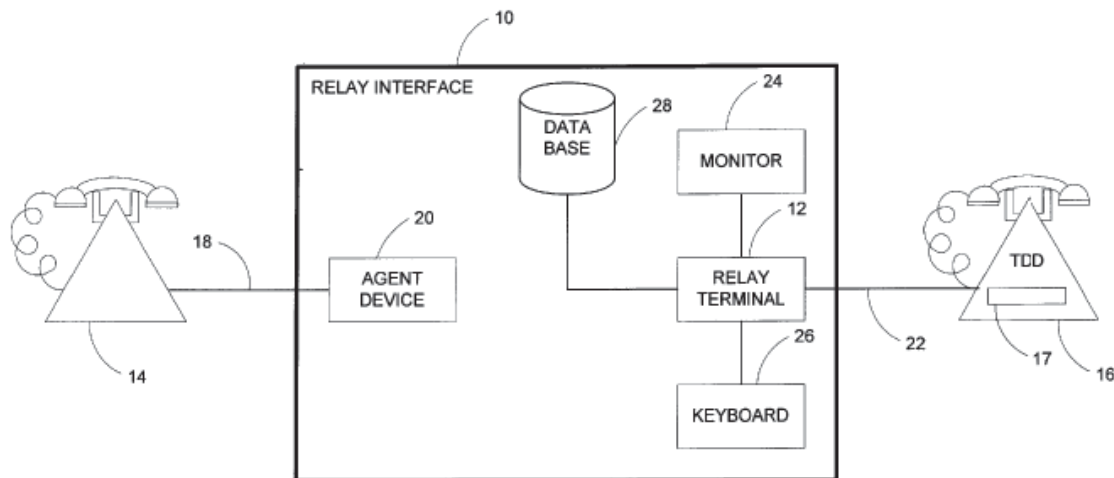


FIG. 1

As shown in Figure 1, Ryan's telecommunications relay interface 10 includes operator/relay terminal 12 and couples standard telephone 14 with TDD 16. Ex. 1004, 3:34-35, 43-51. An operator or relay agent typically is responsible for manipulating relay terminal 12 to relay messages between telephone 14 and TDD 16. Ryan indicates, however, that speech recognition software could be used to automate the relay function so that an operator or relay agent would not be required. *Id.* at 4:19-24. Ryan specifically describes using speech recognition software at agent device 20 to interpret a voice message from a caller at telephone 14 and convert the message from a voice format to a data format. *Id.* at 4:24-27. Ryan further indicates:

If the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message.

Id. at 4:33-38.

IPR2013-00541
Patent 5,909,482

2. *Ryan Is Prior Art*

Ryan issued on September 15, 1998, with a filing date of July 3, 1996, and is entitled to the benefit of the filing date of its parent application, October 18, 1994. Ex. 1004. Thus, Petitioner contends Ryan is prior art under 35 U.S.C. § 102(e). Pet. 10. Patent Owner contends that Ryan is not prior art under § 102(e) because it is not enabled. PO Resp. 16-25.

Under § 102(e), Ryan must be enabled prior to the date of invention of the '482 patent. *See* 35 U.S.C. § 102 (Section 102 indicates that “[a] person shall be entitled to a patent unless— . . . (e) the invention was described in . . . (2) a patent granted on an application for patent . . . filed in the United States before the invention by the applicant for patent.”). The '482 patent issued from an application filed on September 8, 1997. Accordingly, the earliest possible date of invention of the claims of the '482 patent is presumed to be September 8, 1997.

As an initial matter, we address Patent Owner's assertion of an earlier date of invention—June 23, 1997—for claim 1 of the '482 patent. PO Resp. 23-24. Patent Owner relies on a journal entry from August 5, 1997 indicating “the [call assistant] repeats what voice person says” (Ex. 2011 ¶¶ 3-4) and two declarations regarding the purchase of commercial software (i.e., IBM ViaVoice) (Ex. 2012 ¶¶ 5-10; Ex. 2013 ¶¶ 7-9). PO Resp. 23. The declarations indicate additionally that IBM ViaVoice was released in August 1997 and the patent application was filed shortly thereafter on September 8, 1997. Ex. 2012 ¶¶ 5-10; Ex. 2013 ¶¶ 7-9.

IPR2013-00541
Patent 5,909,482

Patent Owner's earliest proffered evidence dates back only to August 5, 1997, not June 23, 1997. Moreover, Patent Owner has not attempted to show diligence in reduction to practice.¹¹ Thus, we do not find that Patent Owner has established a date of invention for the claims prior to September 8, 1997.

We now turn to whether the portion of Ryan relied on by Petitioner as disclosing the recited “digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream” was enabled prior to the relevant time. Initially, there is a presumption that a prior art reference is enabled. *See In re Antor Media*, 689 F.3d 1282, 1287-1288 (Fed. Cir. 2012); *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003).

The parties agree that commercial voice recognition software available from Dragon Systems, called “Naturally Speaking” (and sometimes referred to as “Dragon Naturally Speaking”), enabled “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.” PO Resp. 24 (citing Exs. 2011, 2012, and 2013); Reply 4. There is no dispute that

¹¹ *See Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577 (Fed. Cir. 1996) (holding that the first to conceive “may date his patentable invention back to the time of its conception, if he connects the conception with its reduction to practice by reasonable diligence on his part, so that they are substantially one continuous act” (internal citation and quotations omitted)).

IPR2013-00541
Patent 5,909,482

Dragon Naturally Speaking was available to the public on June 23, 1997. PO Resp. 23 (citing Exs. 2011, 2012, and 2013); Reply 4. Moreover, the '482 patent indicates Dragon Naturally Speaking was available commercially. Ex. 1001, 5:50-57 (stating “a recently available commercial voice recognition package from Dragon Systems, known as ‘Naturally Speaking,’ is a voice recognition software which will . . . translate to digital text spoken words of a user at the normal speeds of human communication in conversation when operating on conventional modern personal computers”).

Weighing the *Wands* factors, we determine that at least the state of the prior art (including commercial availability of Dragon Naturally Speaking), the breadth of the claims (“a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream”), and the predictability of the telecommunications art support a finding that Ryan is enabled as of June 23, 1997. *See Wands*, 858 F.2d at 737.

Patent Owner argues that Ryan does not anticipate claims 1 and 5 under § 102(e) because Ryan’s disclosure of speech recognition software (Ex. 1004, 4:19-38) was not enabled in 1994, the earliest effective filing date claimed by Ryan. PO Resp. 16-25. We do not agree with Patent Owner that, to anticipate under 35 U.S.C. § 102(e), a reference must be enabled as of the date of the reference’s earliest claimed priority date. *Id.* at 16-25.

IPR2013-00541
Patent 5,909,482

First, “[e]nablement of an anticipatory reference may be demonstrated by a later reference.” *Bristol-Myers Squibb Co.*, 246 F.3d at 1379. An anticipatory reference under § 102(b) is enabled if it can be shown that the claimed subject matter was in possession of the public before the critical date of the challenged patent. *Id.* Based on well-established law that to anticipate under § 102(b) a reference must be enabled by the critical date, not by the publication date of the reference asserted as prior art, we conclude that to anticipate under § 102(e) a reference must be enabled by the date of invention of the challenged claim. As determined previously, Ryan is enabled by commercial software available to the public on June 23, 1997, which precedes the earliest date of invention for the ’482 patent. Thus, Ryan is prior art to the claim 1 and 5 of the ’482 patent. *See* 35 U.S.C. § 102(e) (precluding a patent if the invention of the patent was described in “a patent granted on an application for patent . . . filed in the United States before the invention”).

Second, we are not persuaded by Patent Owner’s arguments citing cases concerning (i) the written description requirement of 35 U.S.C. § 112, *In re Wertheim*, 646 F.2d 527 (CCPA 1981), and (ii) the problem of “secret prior art,” *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 U.S. 390 (1926). Patent law now recognizes “secret prior art” in section 102(e), and the Federal Circuit has observed that “[e]ven the ‘secret prior art’ of § 102(e) is ultimately public in the form of an issued patent before it attains prior art status.” *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1402 (Fed. Cir. 1997). Further, it is well-settled that the enablement requirement is a

IPR2013-00541
Patent 5,909,482

separate requirement from the written description requirement. *See, e.g., Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010); *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991).

Moreover, “[t]he enablement requirement is often more indulgent than the written description requirement. The specification need not teach explicitly those in the art to make and use the invention; the requirement is satisfied if, given what they already know, the specification teaches those in the art enough that they can make and use the invention without ‘undue experimentation.’” *Amgen*, 314 F.3d at 1334.

Finally, we are not persuaded by Mr. Ludwick’s testimony addressing the inability of technology in 1994 to implement speech recognition technology that kept up with conversation. PO Resp. 20 (citing Ex. 2010 ¶¶ 25-28). For the reasons discussed previously, Ryan does not need to be enabled as of 1994 to qualify as prior art to claims 1 and 5 of the ’482 patent. Further, we note the language used to describe transcription speeds used in the written description of the ’482 patent—transcription speeds “which will translate to digital text spoken words of a user at the normal speeds of human communication in conversation” (Ex. 1001, 5:54-56)—is not included in claims, which merely recite “the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.”

For these reasons, Ryan need not be enabled as of 1994 to qualify as prior art to claims 1 and 5 of the ’482 patent. We have determined that Ryan

IPR2013-00541
Patent 5,909,482

was enabled as of June 1997 and, therefore, qualifies as prior art to claims 1 and 5.

3. Analysis of Claims 1 and 5

To support its contention that Ryan anticipates independent claim 1 and its dependent claim 5, Petitioner relies on analysis as to how each claim limitation is disclosed by Ryan and also relies on declaration testimony by Mr. Occhiogrosso. Pet. 13-19 (citing Ex. 1004). Patent Owner responds, relying on declaration testimony by Mr. Ludwick and others. PO Resp. 24-37 (citing Exs. 2010-2013). Having considered the parties' contentions and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that Ryan discloses, either expressly or inherently, each limitation of claims 1 and 5, and so anticipates claims 1 and 5, for the reasons set forth below.

In particular, Ryan's description of using speech recognition software noted above discloses "the call assistant speaking in voice the same words that the call assistant hears spoken by the hearing person into a microphone connected to a digital computer" and "the digital computer using voice recognition computer software trained to the voice of the call assistant to translate the words of the voice spoken by the call assistant," as recited in independent claim 1. Ryan's TDD discloses the recited "telecommunication device displaying in visually readable text the words in the digital text message stream." Ex. 1004, 1:53-59; 2:52-54; 4:65-66.

Further, Petitioner acknowledges that Ryan does not disclose expressly "a microphone connected to a digital computer," as recited in

IPR2013-00541
Patent 5,909,482

independent claim 1. Pet. 14-15. Petitioner, however, asserts that Ryan inherently discloses those components. *Id.* (citing Ex. 1004 ¶ 28). We credit Mr. Occhiogrosso’s testimony that the recited “microphone connected to a digital computer” necessarily must be present in Ryan’s relay system for it to process the voice of the relay operator, and a digital computer necessarily must be present for Ryan’s relay system to use speech recognition software. Ex. 1014 ¶ 28 (citing Ex. 1004, 4:14, 33). Thus, we find that Ryan inherently discloses the recited “microphone connected to a digital computer.”

A central dispute between the parties is whether Ryan discloses “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in independent claim 1. *Compare* Pet. 15-16, 18-19 *with* PO Resp. 24-37.

Petitioner contends this limitation is disclosed by Ryan’s relay interface system in which a relay agent is responsible for relaying messages between phone 14 and TDD 16. Pet. 15 (citing Ex. 1004, 4:19-38). We agree with Petitioner that Ryan’s description of “speech recognition software . . . employed at [relay agent] device 20 [and] . . . specifically designed to recognize the voice of particular relay agents” discloses the recited “digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant.” *See* Pet. 15 (citing Ex. 1004, 4:24-34) (emphasis omitted). We also agree that Ryan’s indication

IPR2013-00541
Patent 5,909,482

that “[i]f the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent’s voice message into a data message” discloses “the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.” *See* Pet. 15 (citing Ex. 1004, 4:33-38) (emphasis omitted).

Patent Owner responds with several arguments that Ryan does not disclose the recited digital computer, none of which we find persuasive. *See* PO Resp. 25-37. Undergirding some of Patent Owner’s contentions is the state of the art of voice recognition technology in 1994. *See* PO Resp. 27 (“[S]peech recognition was not actually used at all in the [telecommunications relay service] field in 1994”); *id.* at 37-38 (asserting Ryan must be read narrowly in view of the state of the art of telecommunications relay service art in 1994); Ex. 2010 ¶¶ 23-30 (Mr. Ludwick submitting that Ryan does not contain an enabling disclosure of the recited digital computer based on technology available in 1994). The state of the art of the relevant technology in 1994, however, has limited probative value. Rather, the state of the art of the relevant technology in September 1997, the date of invention of the subject matter claimed in the ’482 patent, is of greater significance. *See* 35 U.S.C. § 102(e) (finding subject matter unpatentable if the “the invention was described in [a reference] *before the invention*”) (emphasis added). As noted previously,

IPR2013-00541
Patent 5,909,482

there is no dispute about the state of voice recognition technology as of June 23, 1997, when Dragon Naturally Speaking was released.

Patent Owner contends that Ryan does not disclose the recited digital computer because the claims require voice recognition software to be running or stored on the call assistant's workstation. PO Resp. 25-26. As discussed above, we disagree with Patent Owner's implicit construction of "the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream." For the reasons noted above, we do not construe the limitation to require the voice recognition computer software package to be stored on the computer programmed to use the software package. Thus, we do not agree with Patent Owner's argument because it is not commensurate in scope with the claims.

Moreover, contrary to Patent Owner's contentions, we find Ryan discloses voice recognition software running at the location of the call assistant. Ryan indicates "speech recognition software could be employed at device 20," which is included in Ryan's telecommunications relay interface system 10 used by the relay agent. Ex. 1004, 3:43-45; *see also id.* at Fig. 1 (showing agent device 20 within telecommunications relay interface system 10). Ryan goes on to state "[i]f the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message." *Id.* at 4:33-38. We do not agree with

IPR2013-00541
Patent 5,909,482

Patent Owner's assertion that, because Ryan indicates "a terminal" (rather than expressly identifying a particular component shown in Figure 1), Ryan's voice recognition software could be located other than on the agent's workstation.

Also, Patent Owner contends that Ryan does not disclose the recited "voice recognition software trained to the voice of the call assistant" because Ryan's software is not trained as required by Patent Owner's interpretation of the required training. Rather, according to Patent Owner, Ryan discloses voice recognition software that is "designed," which means the software is designed in advance of implementation at the source code level and, therefore, the software is not trained. PO Resp. 26-27.

For the reasons noted previously, we do not agree the recited trained voice recognition software precludes training during software design, which Patent Owner acknowledges is disclosed by Ryan. *Id.* at 27-28. Thus, we do not agree with Patent Owner's argument because it is not commensurate in scope with the claims.

Moreover, Patent Owner relies on Mr. Ludwick's testimony asserting Ryan does not teach "voice recognition computer software trained to the voice of the call assistant." PO Resp. 26-28 (citing Ex. 2010 ¶ 22). We do not find Mr. Ludwick's testimony that Ryan's voice recognition software is "designed to recognize the voice of particular relay agents" to be persuasive because Mr. Ludwick grounded his testimony in the state of the art in 1994, when the date of invention is 1997. *See* Ex. 2010 ¶ 21 (referring to the

IPR2013-00541
Patent 5,909,482

telecommunications relay service field in 1994), ¶ 22 (noting the needed technology “did not then exist”).

Next, Patent Owner, relying on Mr. Ludwick’s testimony, contends that Ryan does not disclose the recited “voice recognition software trained to the voice of the call assistant,” because Ryan’s “voice recognition software is written specifically to recognize the voices of a collection or group of people, rather than a particular, individual call assistant.” PO Resp. 28-29 (citing Ex. 2010 ¶ 22).

For the reasons noted previously, we do not agree that the claims are limited to voice recognition software trained to one and only one call assistant. Thus, we do not agree with Patent Owner’s argument because it is not commensurate in scope with the claims.

Moreover, we are not persuaded by Patent Owner that a person of ordinary skill in the art would interpret Ryan as only disclosing software written specifically for a group of people (PO Resp. 28-29). Patent Owner’s argument is unpersuasive because it relies on the level of ordinary skill in the art as reflected in a prior art patent filed in 1994, when the invention date of the challenged claims is September 1997. *See* PO Resp. 29 (citing Ex. 2008, U.S. Patent No. 5,553,119 (“McAllister”) filed on July 7, 1994).

Patent Owner also contends that, at most, Ryan is ambiguous as to the disclosure of a call agent translating the words spoken in voice by the call assistant into a digital text stream, and so does not anticipate claims 1 and 5. PO Resp. 29-37. Patent Owner contends, based on the goals of Ryan to correct errors before displaying words and the context of the passage, that

IPR2013-00541
Patent 5,909,482

Ryan discloses a relay agent using “revoicing” as an error correction mechanism for individual, unrecognized letters of a word. *Id.* at 30-35; *see* Ex. 1004, Abstract, 4:19-38.

Ryan’s technology is intended to “overcome[] the problem associated with existing telecommunications relay services by providing a system and method for correcting mistakes before the message is displayed at the end user’s TDD” (i.e., telecommunications device for the deaf). Ex. 1004, 2:35-38 (“Summary of the Invention”). In the above-quoted passage, Ryan describes ways to do so using speech recognition software. One way is automating the relay function so as to eliminate the need for a human operator. *Id.* at 4:19-24. To do so, Ryan describes using speech recognition software to convert the voice message from a caller to text “while providing an error correction feature for words not recognized by the software.” *Id.* at 4:24-28. Ryan further describes the error correction feature as having two forms—phonetic spelling of the unrecognized word by the speech recognition software or prompting the caller to spell the unrecognized word. *Id.* at 4:29-33. Ryan describes, in the passage, another way to improve the accuracy of a relay system before the text is displayed at the TDD—if the speech recognition software is designed specifically to recognize the voice of particular relay agents, a relay agent “listen[s] to the caller and repeat[s] the voice message into a terminal adapted to convert the agent’s voice message into a data message.” *Id.* at 4:33-38.

In contrast to Ryan’s description of the error correction by the *caller* spelling letters of an unrecognized word, here Ryan unambiguously

IPR2013-00541
Patent 5,909,482

describes a relay agent repeating the voice message of the caller and having speech recognition software, designed specifically to recognize the voice of the relay agent, convert the agent's voice message into a data message. Thus, we are not persuaded that Ryan is ambiguous as to its disclosure of translating the words spoken by the call assistant, and we are not persuaded that Ryan discloses only letters (rather than words) being translated.

For these reasons, we find Ryan discloses the recited "computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," recited in independent claim 1.

Claim 5, which depends from independent claim 1, additionally recites "there are separate telephone lines of the telephone system used for communicate between the call assistant and the hearing person and the call assistant and the deaf person." As noted by Petitioner (Pet. 17), Ryan's Figure 1 shows two telecommunications links, 18 and 22. Ex. 1004, Fig. 1, 3:48-52. Ryan's telecommunications link 18 connects phone 14 with relay interface 10, and Ryan's telecommunications link 22 connects telecommunications device for the deaf ("TDD") 16 with the relay interface 10. *Id.* at 3:48-52. Ryan's relay interface is used by an operator or relay agent. *Id.* at 4:19-21. We find that Ryan's telecommunications links 18 and 22 disclose the recited telephone lines recited in claim 5.

We, therefore, determine that Petitioner has demonstrated by a preponderance of the evidence that Ryan anticipates claims 1 and 5 under 35 U.S.C. § 102(e).

IPR2013-00541
Patent 5,909,482

E. Obviousness over Wycherley and Yamamoto

Petitioner asserts that claims 1 and 5 of the '482 patent are unpatentable under 35 U.S.C. § 103(a) for obviousness over Wycherley and Yamamoto. Pet. 22-25. Petitioner asserts both Wycherley and Yamamoto qualify as prior art to the '482 patent under 35 U.S.C. § 102(b). Pet. 8, 11. Patent Owner challenges Petitioner's contentions regarding Wycherley and Yamamoto. PO Resp. 38-59.

1. Yamamoto Is a Printed Publication under 35 U.S.C. § 102(b)

Petitioner asserts that Yamamoto was published in March 1996 and, therefore, qualifies under 35 U.S.C. § 102(b) as prior art to the '482 patent. Pet. 11. Patent Owner contends that Yamamoto is not prior art because Petitioner has not provided sufficient evidence to show that Yamamoto was a publicly accessible printed publication more than one year prior to September 8, 1997, the earliest effective filing date claimed by the '482 patent. Mot. to Exc. Yamamoto; Paper 65.

a. Evidence of Public Accessibility

We begin with some procedural background to provide context for the evidence relied on by Petitioner. In April 2014, approximately one month after our Institution Decision, Petitioner served on Patent Owner supplemental evidence in response to Patent Owner's objections regarding the publication date of Yamamoto and, hence, its prior art status. *See* Paper 20, 4; *see also* Paper 61, 3-4 (detailing procedural history). On May 30, 2014, Patent Owner filed its Patent Owner Response, which did not

IPR2013-00541
Patent 5,909,482

challenge the sufficiency of Petitioner's evidence demonstrating the public accessibility of Yamamoto, or otherwise contend that Yamamoto is not prior art to the '482 patent under 35 U.S.C. § 102(b). Paper 28; *see* Paper 61, 4. Rather, Patent Owner waited an additional three months, until August 26, 2014, in its Motion to Exclude Evidence, to challenge the sufficiency of Petitioner's evidence regarding the public accessibility of Yamamoto. Paper 44; *see* Paper 61, 4.

Petitioner then moved to submit supplemental information under 37 C.F.R. § 123(b), including a transcript of a videotaped interview with Mr. Seiichi Yamamoto, the first named author of the Yamamoto reference. Paper 50; Ex. 2018 (Videoconference Deposition of Seiichi Yamamoto, Aug. 20, 2014) ("Yamamoto transcript"). We granted the motion, and permitted the parties to file supplemental briefing regarding the public accessibility of Yamamoto, including the admissibility of the Yamamoto transcript. *See* Paper 61, 10-11; Paper 63 (Petitioner's Additional Briefing); Paper 65 (Patent Owner's Response to Additional Briefing); Paper 66 (Petitioner's Reply to Patent Owner's Response to Additional Briefing).

We now turn to the evidence regarding the public accessibility of Yamamoto. The first page of Yamamoto indicates it was a paper presented at the Proceedings of the Acoustical Society of Japan Spring 1996 Research Presentation Conference in March 1996. Ex. 1006. In support of its contention that Yamamoto was publicly accessible in March 1996, Petitioner relies primarily on the transcript of the interview with Mr. Yamamoto, in which the parties questioned Mr. Yamamoto regarding the presentation and

IPR2013-00541
Patent 5,909,482

distribution of the paper at the conference. *See* Ex. 2018. This interview was conducted in connection with the related district court proceeding, *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.). *See* Ex. 2017, 1.

Pursuant to stipulation of the parties, both parties had the opportunity to ask Mr. Yamamoto questions at the interview, an interpreter was present to translate Mr. Yamamoto's testimony, and a court reporter made a stenographic record of the English portion of the interview. *See* Ex. 1062 (Stipulation Regarding Seiichi Yamamoto) ¶¶ 1, 3. The parties also stipulated that the stenographic record of the interview would be treated as sworn deposition testimony in the district court proceeding and, "[w]ith respect to other proceedings, the stenographic record will be treated as a sworn deposition taken in Western District of Wisconsin Case Nos. 13-cv-346 and 14-cv-66 at which both parties appeared and had the opportunity to question the witness." *Id.* ¶ 5.

Patent Owner contends the Yamamoto transcript should be excluded as evidence because the parties did not agree it could be used in this proceeding. Paper 65, 5-6. To the contrary, the parties' stipulation provides that "[t]he use and admissibility of the stenographic record in any other proceedings will be governed by the rules in effect with respect to such other proceeding." Ex. 1062 ¶ 5. Thus, the parties agreed that the Yamamoto transcript may be used in this *inter partes* review to the extent permitted by our rules.

IPR2013-00541
Patent 5,909,482

Patent Owner argues that Board rules require exclusion of the Yamamoto transcript because Mr. Yamamoto was not sworn and did not sign the transcript, and because Petitioner failed to provide advance notice to the Board of its intent to take a foreign language deposition. Paper 65, 6 (citing 37 C.F.R. § 42.53(a), (e), (f)). The Yamamoto transcript, however, does not run afoul of the rules cited by Patent Owner because Petitioner seeks to admit the transcript as a deposition taken in the district court proceeding, not as deposition testimony taken in this *inter partes* review proceeding. *See* Paper 66, 1. Moreover, the parties stipulated that the Yamamoto transcript would be treated as sworn deposition testimony taken in the district court. Ex. 1062 ¶ 5.

Patent Owner further contends that the Yamamoto transcript constitutes inadmissible hearsay under the Federal Rules of Evidence, which apply to this proceeding. Paper 65, 7 (citing 37 C.F.R. § 42.62(a); Fed. R. Evid. 801, 802). Petitioner responds that the Yamamoto transcript is admissible as an exception to the rule against hearsay. Paper 66, 1-3. We agree with Petitioner.

First, Rule 804(b)(1) allows the use of former testimony of an unavailable witness if the testimony “(A) was given as a witness at a trial, hearing, or lawful deposition, whether given during the current proceeding or a different one; and (B) is now offered against a party who had . . . an opportunity and similar motive to develop it by direct, cross-, or redirect examination.” Fed. R. Evid. 804(b)(1). By stipulation of the parties, the interview of Mr. Yamamoto was treated as a lawful deposition in the district

IPR2013-00541
Patent 5,909,482

court proceeding. Ex. 1062 ¶ 5. Also, both parties had the opportunity to develop Mr. Yamamoto's testimony and had the same motive as in this proceeding—to determine whether Yamamoto was publicly accessible. *See* Ex. 1062 ¶ 1; Ex. 2018. As we determined previously, Petitioner reasonably concluded, based on Patent Owner's Response (Paper 28) filed on May 30, 2014, that Patent Owner no longer was challenging the prior art status of the Yamamoto reference, and only became aware of Patent Owner's continued challenge when Patent Owner improperly challenged the sufficiency of the Yamamoto reference in its Motion to Exclude filed on August 26, 2014, well after the time for taking testimony in this proceeding. Paper 63, 7. At that point, Petitioner had no reasonable means for obtaining Mr. Yamamoto's testimony for this proceeding. *See* Paper 50, 3 (Petitioner's Motion for Leave to File Supplemental Evidence Regarding Yamamoto). We determine, therefore, that Mr. Yamamoto was unavailable as a witness, *see* Fed. R. Evid. 804(a), and the Yamamoto transcript is admissible under Rule 804(b)(1).¹²

In addition, the Yamamoto transcript is admissible under Rule 807. First, Mr. Yamamoto's videotaped interview, which was stipulated to be sworn deposition testimony in the district court proceeding, and in which Mr. Yamamoto was subject to cross-examination, "has equivalent

¹² We note that the parties stipulated, for purposes of the district court proceeding, that Mr. Yamamoto's testimony would be deemed former testimony under Rule 804(b) and Mr. Yamamoto was deemed unavailable under Rule 804(a).

IPR2013-00541
Patent 5,909,482

circumstantial guarantees of trustworthiness.” Fed. R. Evid. 807(a)(1). Also, Petitioner offers the Yamamoto transcript as evidence of a material fact—the public availability of a prior art reference—and it is more probative on that point than any other evidence Petitioner can obtain through reasonable efforts because Mr. Yamamoto co-authored the Yamamoto reference and presented it at a conference of the Acoustical Society of Japan. *See* Fed. R. Evid. 807(a)(2), (3). Finally, admitting the Yamamoto transcript is in the interests of justice, as it provides as complete a record as possible regarding the public accessibility of the Yamamoto reference. *See* Fed. R. Evid. 807(a)(4); *see also* Paper 63, 8 (determining that submission of the Yamamoto transcript is in the interests of justice).

Finally, we are not persuaded by Patent Owner’s argument that the Yamamoto transcript should be excluded under Federal Rules of Evidence 602, 603, and 604. Mr. Yamamoto’s testimony indicates that he was present at the conference at which his paper was presented and had personal knowledge of the distribution of the paper, as required by Rule 602. *See* Ex. 2018. As for Rules 603 and 604, requiring an oath or affirmation by a witness and interpreter, respectively, they do not require exclusion of the Yamamoto transcript because the parties stipulated that it would be treated as sworn deposition testimony. *See* Ex. 1062 ¶ 5.

b. Yamamoto Was Publicly Accessible in March 1996

Under 35 U.S.C. § 102(b), a person is not entitled to a patent if “the invention was . . . described in a printed publication . . . more than one year prior to the date of the application for patent.” “The statutory phrase

IPR2013-00541
Patent 5,909,482

‘printed publication’ has been interpreted to mean that before the critical date the reference must have been sufficiently accessible to the public interested in the art; dissemination and public accessibility are the keys to the legal determination whether a prior art reference was ‘published.’” *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1568 (Fed. Cir. 1988)). The determination of whether a reference qualifies as a printed publication “involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public.” *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004).

In the present case, based on the circumstances surrounding the presentation and dissemination of the Yamamoto reference, we conclude that Yamamoto was publicly accessible in March 1996, more than one year before September 8, 1997, the earliest effective filing date of the claims of the ’482 patent. As indicated on the first page of the reference, the Yamamoto reference was presented at the March 1996 Research Presentation Conference of the Acoustical Society of Japan. Ex. 1006, 1. Mr. Yamamoto’s testimony, which we find credible, confirms that he gave an oral presentation of the paper at Special Session A of the conference on March 26, 1996. Ex. 2018, 6:8-23, 13:23-14:3. According to Mr. Yamamoto’s estimate, 100 to 150 people attended his presentation of the paper. *Id.* at 13:23–14:3.

The Acoustical Society created a book containing all the papers presented at the conference, including the Yamamoto paper. *Id.* at 8:12-23,

IPR2013-00541
Patent 5,909,482

12:24-13:10, 15:18-19. Conference attendees were able to purchase a copy of the book at the time of registration. *Id.* at 13:8-10, 14:17-21. Beginning on the first day of the conference, copies of the book were “piled up on the registration desk for purchase, for anyone who wished to purchase.” *Id.* at 16:19-22. According to Mr. Yamamoto, many of his friends who attended the conference purchased a copy of the book. *Id.* at 9:18-10:2, 15:11-17. He also made the paper available to anyone who asked for a copy, and he recalls providing copies to subordinates of Mr. Fujioka, his co-author, though he does not recall the precise timing. *Id.* at 14:8-13, 16:6-14.

The facts of this case are similar to those in *MIT v. AB Fortia*, 774 F.2d 1104 (Fed. Cir. 1985). In that case, our reviewing court concluded that a paper that had been presented orally at a conference attended by 50 to 500 interested persons of ordinary skill in the art, and had been disseminated to at least six persons, was a printed publication for prior art purposes. *Id.* at 1109. Similarly, Mr. Yamamoto orally presented his paper to 100 to 150 persons of ordinary skill in the art, and many conference attendees received a copy of the book containing the paper. Ex. 2018, 9:18-10:2, 13:23-14:3, 15:11-17.

Patent Owner argues that without a detailed analysis of factors such as the length of time the paper was displayed at a conference, the expertise of its target audience, and the expectations regarding and ease with which the material would be copied, Yamamoto cannot be considered prior art. Paper 61, 7-8 (citing *In re Klopfenstein*, 380 F.3d at 1350). Those factors, however, are relevant when determining the public accessibility of a

IPR2013-00541
Patent 5,909,482

reference that was displayed at a conference without distribution to the public. *In re Klopfenstein*, 380 F.3d at 1350. In contrast, the Yamamoto reference was included in a book of papers presented at the Acoustical Society conference that was available for purchase by all conference attendees, and actually was purchased by many attendees. Ex. 2018, 9:18-10:2, 12:24-13:10, 15:11-19.

Patent Owner also contends that the distribution of the Yamamoto reference does not show it was accessible publicly because there is no evidence that it occurred among people in the interested public. Paper 65, 8-9. Although Mr. Yamamoto could not recall if the Acoustical Society of Japan's March 1996 conference was open to non-Society members, Ex. 2018, 7:23-8:11, attendance by at least 100 to 150 Society members is sufficient to show the Yamamoto reference was available to persons interested in the subject matter of the paper, voice recognition applications in communication systems. This case is distinguishable from those cited by Patent Owner, which involve papers posted online for a small, closed group of specialists. *See* Paper 61, 8-9 (citing *SRI Int'l Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1197 (Fed. Cir. 2008); *Samsung Electronics Co. v. Rembrandt Wireless Techs., LP*, 2014 WL 4537478, at *5, IPR2014-00515 (PTAB Sept. 9, 2014)).

For these reasons, based on the facts and circumstances regarding presentation and dissemination of the Yamamoto reference, we determine that Yamamoto was publicly accessible in March 1996. Yamamoto,

IPR2013-00541
Patent 5,909,482

therefore, qualifies as a printed publication that is available as prior art to the claims of the '482 patent.¹³

2. *Summary of Wycherley*

Wycherley describes a system for a relay service for establishing a telephone call between a hearing person and a hearing-impaired person. Ex. 1002, 1:6-10. To reduce the time a service attendant is involved in such a telephone call, Wycherley's relay system uses text-to-speech processing and, on a limited basis, automatic speech recognition. *Id.* at Abstract. Wycherley's relay system includes Automatic Speech Recognition (ASR) units, which may be software that is available commercially and trained using a voice template, enabling the voice processor to recognize each word uttered by the speaker in a call. *Id.* at 3:59-60; 4:26-29, 35-56. In the event of excessive translation errors by the automated translation of the hearing person's words, Wycherley's relay system transfers the telephone call to a call attendant, who "may request that the speaker repeat the substance of his or her response" and type the words spoken by the hearing person for transmission to the hearing impaired person's TDD terminal. *Id.* at 5:42-47; *see id.* at 5:1-53.

¹³ Because we conclude that Yamamoto was publicly accessible in March 1996, we need not address Petitioner's argument and evidence regarding public accessibility in May 1996, when Petitioner asserts that the book containing Mr. Yamamoto's paper was received by the Japan Science and Technology Agency. *See* Paper 65, 6.

IPR2013-00541
Patent 5,909,482

3. Summary of Yamamoto

Yamamoto describes tests of voice recognition systems. Ex. 1006, 34-36. Along with other examples, Yamamoto describes a test with an operator assistance system for international calling, noting a preliminary step in an operator assistance system for international calling is “voice recognition of an operator repeating the question from the [international calling] user” to increase efficiency. *Id.* at 35, § 3.2.

4. Analysis of Claims 1 and 5

To support its contentions that claims 1 and 5 would have been obvious over Wycherley and Yamamoto, Petitioner relies on analysis provided with respect to the references and the declaration testimony of Mr. Occhiogrosso. Patent Owner responds, relying on declaration testimony by Mr. Ludwick and others. PO Resp. 38-45 (citing Exs. 2002, 2004, 2005, and 2010). Having considered the parties’ contentions and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 5 are unpatentable for obviousness over Wycherley and Yamamoto for the reasons set forth below.

Petitioner relies on Wycherley as teaching or suggesting the microphone recited in independent claim 1. *See* Pet. 24. Petitioner relies on a combination of Wycherley and Yamamoto for teaching or suggesting “a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in independent claim 1. As

IPR2013-00541
Patent 5,909,482

acknowledged by Petitioner, Wycherley's relay service uses "caller-specific templates to implement speaker-dependent voice recognition directly on the voice of the unimpaired caller." Pet. 22 (citing Ex. 1002, 3:43-4:56).

Petitioner further relies on Wycherley for disclosing a digital computer connected to the microphone and programmed to use a voice recognition computer software package trained to the voice of *the caller* (rather than trained to the voice of the call assistant, as recited in independent claim 1) to translate the words spoken in voice by *the caller* (rather than the call assistant) into a digital text stream. In combination with Wycherley's teaching of a computer programmed for the caller, Petitioner relies on Yamamoto's description of an international call assistance system as teaching the recited call assistant. *See* Pet. 22-24. Specifically, Petitioner relies on Yamamoto's description of an international call assistance system that uses "voice recognition of an operator restating the question from the [international calling] user" as teaching or suggesting "the computer programmed to use a voice recognition computer software package" to translate the voice of the call assistant. *Id.* Thus, Petitioner contends the combination of Wycherley and Yamamoto teaches or suggests "a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," as recited in independent claim 1.

Petitioner, relying on Mr. Occhiogrosso for support, indicates both Wycherley and Yamamoto "involve the use of voice recognition to increase

IPR2013-00541
Patent 5,909,482

the efficiency of operator assisted telephone services” and contends “it would have been obvious to incorporate *Yamamoto*’s intermediate re-voicing solution into *Wycherley* during situations where, like *Yamamoto*, full automation was not practical.” Pet. 23 (citing Ex. 1014 ¶ 42).

We are persuaded that *Wycherley* teaches or suggests “a microphone connected to a digital computer,” as recited in independent claim 1. *See* Pet. 24; *id.* at 22-25. *Wycherley* describes an attendant console at which an attendant listens, and *Wycherley* depicts headsets connected to attendant terminals 220 (Ex. 1002, 1:31-37; Fig. 1), which teaches or suggests that the attendant hears words. *Wycherley* describes that the attendant transmits an oral version of a displayed text message transmitted by a hearing-impaired person (*id.* at 1:27-37), which teaches or suggests the attendant speaks in voice the displayed text. *Wycherley*’s Automatic Speech Recognition (ASR) unit includes modem 305 for transmission of digitized words to the TDD user (*id.* at 5:13-14; Fig. 1 (depicting modem 305 in an ASR unit)), which teaches or suggests translating words into a digital text message stream. *Wycherley* further describes, after transmitting to the hearing person an oral version of a displayed text message transmitted by a hearing-impaired person, the attendant at the console “listens to” the hearing person’s oral response. *Id.* at 1:31-37. Thus, we are persuaded that *Wycherley* teaches or suggests receiving voice communications from the telephone system and transmitting those voice communications to the ear of the call assistant.

IPR2013-00541
Patent 5,909,482

We also are persuaded that Petitioner's proposed combination of Wycherley's relay service that uses text-to-speech processing and automatic speech recognition with Yamamoto's voice recognition system used to provide operator assistance would have taught or suggested to a person of ordinary skill in the art "a microphone connected to a digital computer" and "the digital computer using voice recognition computer software trained to the voice of the call assistant to translate the words of the voice spoken by the call assistant into a digital text message stream containing the words spoken by the call assistant," as recited in independent claim 1. Thus, we conclude that the teachings of Wycherley and Yamamoto in combination would have suggested the subject matter of claim 1 as a whole to one of ordinary skill in the art.

Claim 5, which depends from independent claim 1, further recites "there are separate telephone lines of the telephone system used for communicat[ing] between the call assistant and the hearing person and the call assistant and the deaf person." For this limitation, Petitioner relies on Wycherley's teaching of a TDD user transmitting a text message "via a telephone connection" to an attendant's console and the attendant at the console transmitting "via a separate telephone connection to the unimpaired person an oral version of the displayed text message." Ex. 1002, 1:27-33; *see* Pet. 22.

We also determine that Petitioner has articulated sufficient reasoning with some rational underpinning to support the legal conclusion that the subject matter of the claims would have been obvious to one of ordinary

IPR2013-00541
Patent 5,909,482

skill in the art in view of the teachings of Wycherley and Yamamoto as combined in the manner proposed by Petitioner. *See KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). As noted by Petitioner (Pet. 232), both references disclose using voice recognition systems to increase the efficiency of operator-assisted telephone services. *See* Ex. 1002, 3:43-57; Ex. 1006, 35; *see also* Ex. 1014 ¶ 42. We agree that, at the time of the invention in 1997 and in view of the commercial availability of Dragon Naturally Speaking, it would have been obvious to one skilled in the art to mix and match the teachings of voice recognition systems used in operator-assisted telephone services as a whole to arrive at the claimed invention, because the prior art shows a person of ordinary skill could predictably use known elements according to their established functions and address a common problem—increasing the efficiency of operator-assisted telephone services. *See KSR*, 550 U.S. at 416 (stating “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results”), 420 (indicating “[u]nder the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed”).

We first turn to Patent Owner’s contention that Wycherley and Yamamoto do not teach the subject matter of the claims—particularly, the recited “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to

IPR2013-00541
Patent 5,909,482

translate the words spoken in voice by the call assistant into a digital text stream.” PO Resp. 38-44.

Patent Owner contends that Yamamoto, rather than facilitating communication between a hearing person and a hearing-impaired person, only provides examples of single word speech recognition and speech recognition software used for database information retrieval tasks. Patent Owner asserts that Yamamoto does not disclose the subject matter of claims 1 and 5 because the claims require “a real-time continuous speech recognition application” and require that the call assistant “repeat[s] everything” the caller says. PO Resp. 40, 42. Patent Owner further indicates Yamamoto is unsuitable to perform the subject matter of the claimed subject matter because Yamamoto describes (i) speech recognition only for database retrieval tasks, (ii) word spotting voice recognition, (iii) using isolated word recognition because it recognizes continuous speech recognition is not yet commercially viable, and (iv) a continuous voice recognition system as being only able to identify a restricted set of responses.

The pertinent question, however, is whether the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art in view of the combined references, not whether the references in the asserted combination individually teach the subject matter of claims 1 and 2. 35 U.S.C. § 103(a); *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“the test [for obviousness] is what the combined teachings of the references would have suggested to those of ordinary skill in the art”). Patent Owner’s

IPR2013-00541
Patent 5,909,482

arguments in large measure amount to attacks on Wycherley and Yamamoto individually, without sufficient consideration of the combination of Wycherley and Yamamoto, an approach we find unpersuasive. Patent Owner's arguments regarding Yamamoto unduly focus on specific, isolated capabilities described in Yamamoto without addressing what those capabilities, in combination with Wycherley's relay with voice recognition software trained to the caller's voice, would have suggested to one of ordinary skill in the art at the time of the invention of the '482 patent.

Notably, Yamamoto describes "a continuous speech recognition system driven by a context-free grammar" and describes an operator assistance system that uses voice recognition of an operator repeating words heard from a caller. Ex. 1006, 34-35. Further, Dragon Naturally Speaking was available commercially in June 1997 before the invention in September 1997. Thus, we credit the testimony of Petitioner's declarant, Mr. Occhiogrosso, that that these features would have been known in September 1997 to one of ordinary skill in the art in view of the teachings of Wycherley and Yamamoto. Pet. 23; Ex. 1014 ¶¶ 38-43.

In challenging the combination of Wycherley and Yamamoto, Patent Owner further contends, with support of Mr. Ludwick, that a person of ordinary skill would not have considered Wycherley because (i) continuous speech recognition technology did not exist in 1990, when the application that issued as Wycherley was filed, (ii) some implemented aspects of Wycherley's relay were "disliked by customers," and (iii) Wycherley teaches away from designing a relay employing revoicing. PO Resp. 49-51.

IPR2013-00541
Patent 5,909,482

Mr. Ludwick's testimony regarding the state of the art in 1990 has little probative value because the time of the invention is September 1997, as discussed previously. *See* 35 U.S.C. § 103(a) ("A patent may not be obtained . . . if the differences between the subject matter sought to be patented 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.") (emphasis added). Further, as discussed previously, continuous speech recognition software was known by the invention date of claims 1 and 5 in 1997.

Nor do we agree with Patent Owner that Wycherley teaches away from the claimed invention. Patent Owner has not identified where Wycherley criticizes, discredits, or otherwise discourages "us[ing] a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," as recited in independent claim 1. *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (prior art does not teach away from claimed subject matter merely by disclosing a different solution to a similar problem unless the prior art also criticizes, discredits, or otherwise discourages the solution claimed).

Moreover, Mr. Ludwick's statements concerning customer dislike of some features of an implementation of Wycherley's relay do not persuade us that a person of ordinary skill in the art would not look to Wycherley. First, Patent Owner has not identified the aspect of the implementation of Wycherley's relay that was less desirable than the claimed invention.

IPR2013-00541
Patent 5,909,482

Second, even if some aspect of the implementation of Wycherley's relay was less desirable than the claimed invention, that, in itself, is insufficient to teach away from the purportedly inferior alternative of Wycherley unless the disclosure criticizes, discredits, or otherwise discourages that alternative. *Cf. In re Fulton*, 391 F.3d at 1200 (“a finding that the prior art as a whole suggests the desirability of a particular combination need not be supported by a finding that the prior art suggests that the combination claimed by the patent applicant is the preferred, or most desirable, combination”).

Thus, we are not persuaded that Wycherley teaches away from the subject matter recited in claims 1 and 5.

Further, Patent Owner contends that Yamamoto teaches away, because Yamamoto states that “continuous speech and spontaneous speech recognition [was still] not yet commercially viable.” PO Resp. 53 (citing Ex. 1006, 33; Ex. 2010 ¶ 52). We are not persuaded. First, as noted previously, we do not agree that Yamamoto indicates that “recognition of continuous speech and spontaneous speech recognition is not yet commercially viable” in all contexts. Rather, we have determined that Yamamoto teaches particular techniques—word spotting—are useful in contexts in which “recognition of continuous speech and spontaneous speech recognition is not yet commercially viable.” Ex. 1003, 33. Although this indicates that such technology is not viable in some situations, this does not indicate the technology is not viable commercially in all contexts. Moreover, Yamamoto indicates “[v]oice-recognition systems [and] voice-recognition software . . . have arrived at a usable state” (Ex. 1006, 33),

IPR2013-00541
Patent 5,909,482

which further undercuts Patent Owner's position that voice recognition technology is not viable commercially. Yamamoto also indicates "a variety of voice recognition application systems in communication networks are also becoming commercially available" (*id.*), which further undercuts Patent Owner's position that voice recognition technology is not viable commercially. Thus, we do not agree Yamamoto criticizes, discredits, or otherwise discourages—and so teaches away—from the claimed subject matter.

According to Patent Owner, Yamamoto does not teach how to incorporate automatic speech recognition into real time telephone communication between users. PO Resp. 53. Yamamoto, however, need not teach how to incorporate automated speech recognition into real-time telephone communication between users. A determination of obviousness is based not on teaching bodily incorporation of parts from one disclosed system into another, but, as noted previously, on what the combined teachings would have suggested to one with ordinary skill in the art. *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012); *Keller*, 642 F.2d at 425.

Nor are we persuaded that automated speech recognition, enabled by Dragon Naturally Speaking in 1997, would have been uniquely challenging or otherwise beyond the level of ordinarily skilled artisans to combine with Wycherley's relay system at the time the invention was made in August or September 1997. *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007). Indeed, the '482 patent describes the use of a voice recognition software, such as Dragon Naturally Speaking, but does not

IPR2013-00541
Patent 5,909,482

describe the technical details of how to incorporate Dragon Naturally Speaking into the computer terminal containing a copy of the software. *See* Ex. 1021, 5:42-57.

Patent Owner further submits Yamamoto is focused “on operated-assisted database tasks,” Yamamoto is unsuitable for a relay application for a conversation between multiple parties, and that modifying Wycherley so that the relay agent repeats the unimpaired user’s words would render Wycherley unsatisfactory for its intended purpose. PO Resp. 51-52. Patent Owner, relying on its declarant, reasons that the use of a relay agent to repeat the caller’s words “would negate Wycherley’s entire premise of providing a more cost efficient relay service by reducing or eliminating the call assistant’s involvement.” PO Resp. 52 (citing Ex. 2010 ¶ 55). We disagree because we credit Mr. Occhiogrosso’s testimony (Ex. 1053 ¶ 60) that augmenting Wycherley’s call assistants with voice recognition software would increase their efficiency, and thus help achieve Wycherley’s goal of minimizing use of call assistants.

In view of the foregoing, we are persuaded that Petitioner has articulated a sufficient reason to support a conclusion of obviousness in view of Petitioner’s combination of Wycherley and Yamamoto. *See* PO Resp. 44-49.

5. Secondary Considerations

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

IPR2013-00541
Patent 5,909,482

Notwithstanding what the teachings of the prior art would have suggested to one with ordinary skill in the art at the time of the '482 patent's invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one with ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the following: long-felt but unsolved need, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17; *Leapfrog Enters.*, 485 F.3d at 1162.

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). Thus, to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC*, 57 F.3d at 1580. “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the Patent Owner. *Id.*; *see Paulsen*, 30 F.3d at 1482.

Patent Owner alleges “substantial praise for the inventions claimed in [Patent Owner's] patents, including the '482 Patent, the long-felt but unresolved need of the deaf and hard of hearing community, the commercial

IPR2013-00541
Patent 5,909,482

success of the products and services embodying the invention, and the failure of others to provide a relay service or other solution that provided the benefits of the claimed inventions.” PO Resp. 57-59. For support, Patent Owner proffers Declarations by Ms. Brenda Battat (Ex. 2004) and Ms. Constance Phelps (Ex. 2005) describing general innovations of Patent Owner’s CapTel Service and its CapTel phone and describing their benefits to the deaf and hard of hearing community. PO Resp. 58-59; *see* Ex. 2004 ¶¶ 18-19, 25-41.

In an attempt to establish the requisite nexus, Patent Owner relies on a declaration of Mr. Ludwick (Ex. 2002) asserting that his expert declaration “explain[s], on a feature by feature basis, the nexus between those secondary considerations and the claimed design” and “illustrates, in chart form, that the CapTel system and various models of CapTel phones embody the claims of the present invention.” PO Resp. 58–59.

Patent Owner’s Response contains no substantive arguments. *Id.* Instead, Patent Owner merely lists various common forms of secondary considerations evidence, without exposition. This does not provide sufficient analysis for us to determine whether Patent Owner has provided adequate evidence of secondary considerations and a nexus between any such evidence and the merits of the claimed invention. Thus, Patent Owner’s broad contentions regarding secondary considerations in its Patent Owner Response do not demonstrate nonobviousness.

Moreover, Patent Owner’s declarations fail to establish a nexus between the merits of the claimed invention and the evidence of secondary

IPR2013-00541
Patent 5,909,482

considerations. To show a nexus, Patent Owner relies on Mr. Ludwick's declaration, which describes his visit to CapTel, Inc.'s relay center in Madison, Wisconsin. Ex. 2002 ¶ 47. Mr. Ludwick's chart presents his conclusions based on personal observation that the CapTel Service meets each claim limitation of the '482 patent. Ex. 2002 ¶ 48 (pages 28-30). For example, regarding "a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," recited in independent claim 1, Mr. Ludwick asserts:

I personally observed that the CapTel Service meets this claim element. I further confirmed this from my own knowledge of CapTel Service. This feature of the CapTel Service relay is present when the Service is used with each of the CapTel Phones and has always been included as part of the CapTel Service.

Ex. 2002 ¶ 48 (page 28).

Because Mr. Ludwick's conclusions are based on personal observations, without sufficient supporting facts or data, his testimony has little probative value. *See Am. Acad. of Sci. Tech Ctr.*, 367 F.3d at 1368 ("[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations."); *see also* Fed. R. Evid. 702 (providing one may testify in the form of an opinion if the testimony is based on sufficient facts or data). As such, Mr. Ludwick's conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention, and so do

IPR2013-00541
Patent 5,909,482

not establish the requisite nexus between the merits of the claimed invention and the evidence of secondary considerations.

Accordingly, Patent Owner fails to provide sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner's evidence of obviousness against Patent Owner's asserted objective evidence of nonobviousness, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 5 would have been obvious over Wycherley and Yamamoto.

*F. Obviousness over Wycherley and Yamamoto
in Combination with Various Other References*

Petitioner asserts claims 2-4 and 6-15 would have been obvious over Wycherley, Yamamoto, and various other references, as described in more detail below. Independent claims 7, 10, and 13 are directed to a relay and recite similar limitations to those recited in claim 1. For instance, each of independent claims 7, 10, and 13 recites "a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream."

For these additional grounds of obviousness relying on Wycherley and Yamamoto, Petitioner substantially relies on the same analysis and supporting evidence described previously with regard to the ground that independent claim 1 would have been obvious over Wycherley and Yamamoto. Patent Owner argues claims 1-15 together regarding the

IPR2013-00541
Patent 5,909,482

combination of Wycherley and Yamamoto alone and in combination with additional references. PO Resp. 38-45. For the reasons we explained previously, we determine that Petitioner has demonstrated by a preponderance of the evidence that the challenged claims would have been obvious over Wycherley and Yamamoto.

1. Obviousness over Wycherley, Yamamoto, and Jones

Petitioner asserts that claims 2, 7, and 8 would have been obvious over Wycherley, Yamamoto, and Jones. Pet. 35-38. Claim 2 depends from claim 1 and further recites “the step of using the voice spoken by the call assistant to create a noise canceling signal also transmitted to the earphone of the call assistant so that the call assistant hears less of his or her own spoken voice.” Independent claim 7 recites “noise attenuating means responsive to the voice spoken by the call assistant and connected to the speaker to attenuate the noise of the voice of the call assistant from the sounds heard in the ear of the call assistant.”

Regarding claims 2 and 7, Petitioner relies on Jones’s noise cancellation system with a headset for teaching or suggesting the recited step in claim 2 and the noise attenuating means in independent claim 7. Pet. 35-37. Jones describes a noise cancellation system that eliminates unwanted sound by destructive interference. *See* Ex. 1008, Abstract; 1:16. The noise cancellation system, which includes a headset and a microphone, detects unwanted sound and provides corresponding signals to cancel the unwanted sound. *See id.* at 1:30-39. Jones explains that “[i]deally, the . . . microphone . . . perceives the same sounds as the eardrum of the listener.” *See id.* at

IPR2013-00541
Patent 5,909,482

1:41-42; *see also id.* at 2:31-43 (describing “feedforward techniques” to cancel noise using an external microphone placed between the listener and a noise source). Petitioner, relying on statements by Mr. Occhiogrosso, explains that Jones’s microphone “could pick up, for example, the call assistant’s own voice in order to generate a noise canceling signal that would cause the call assistant to hear less of [the assistant’s] own voice.” Pet. 36 (citing Ex. 1014 ¶ 49). Further, regarding the “noise attenuating means” recited in claim 7, as discussed previously, we construe “noise attenuating means” to require earphones, or a computer provided with noise canceling sound generation software, to attenuate the noise of the voice of the call assistant from the sounds heard in the ear of the call assistant. Jones discloses a noise cancellation system with a headset and microphone.

Based on the above, we determine that Petitioner has shown by a preponderance of the evidence that Jones teaches or suggests the noise cancellation step in claim 2 and noise cancellation means in claim 7.

Claim 8, which depends from independent claim 7, additionally recites “there are separate telephone lines of the telephone system connected between the call assistant and the hearing person and the call assistant and the deaf person.” Regarding claim 8, Petitioner relies on Wycherley’s description of two telephone lines discussed previously with respect to claim 5, which recites “there are separate telephone lines of the telephone system used for communicate between the call assistant and the hearing person and the call assistant and the deaf person.” Pet. 37 (citing Pet. 35 (citing Ex. 1001, 1:21-39)). For the reasons discussed previously, we

IPR2013-00541
Patent 5,909,482

determine that Wycherley teaches or suggests the two telephone lines recited in claim 8.

Regarding reasons to combine the references, Petitioner further explains, relying on Mr. Occhiogrosso, that “it would have been obvious to incorporate the noise canceling technology of *Jones* into the headset of the call assistant in *Wycherley* in order to reduce” the sound of the assistant’s own voice in the assistant’s headset (which is called “side tone”). *Id.* at 36 (citing Ex. 1014 ¶ 50). According to Mr. Occhiogrosso, this was a well-known technique at the time of the ’482 patent. *Id.* (citing Ex. 1014 ¶ 50).

We are persuaded by Mr. Occhiogrosso’s testimony that noise cancellation was a well-known technique. Thus, we conclude it would have been obvious to one skilled in the art to employ the teachings of *Jones*’s noise cancellation techniques with *Wycherley*’s and *Yamamoto*’s voice recognition systems used in operator-assisted telephone services, because the prior art shows a person of ordinary skill could use known elements according to their established functions to yield predictable results. *See KSR*, 550 U.S. at 416 (stating “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results”).

Relying on Mr. Ludwick, Patent Owner contends that no rationale exists to combine *Wycherley* and *Yamamoto* with *Jones*. PO Resp. 54 (citing Ex. 2010 ¶ 60). According to Patent Owner, side tone would not be a problem in *Wycherley*’s system, because “the assistant in *Wycherley* is only typing the conversation,” or in *Yamamoto*’s operator assistance, because

IPR2013-00541
Patent 5,909,482

there is “no indication that the operator speaks to the user or otherwise suggests that the voice of the operator is being fed back into the operator’s headset.” *Id.* We are not persuaded by Patent Owner’s contentions, which do not address adequately the prior art use of known components according to their established functions to yield predictable results.

Moreover, at least with respect to Yamamoto’s voice recognition system, Patent Owner appears to require motivation for the combination to be articulated within the Yamamoto reference itself, which is not required. *See KSR*, 550 U.S. at 419 (“The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents.”).

We, therefore, determine that Petitioner has demonstrated by a preponderance of the evidence that claims 2, 7, and 8 would have obvious over Wycherley, Yamamoto, and Jones.

2. *Obviousness over Wycherley, Yamamoto, and Choi*

Petitioner asserts that claims 3, 10, and 11 would have been obvious over Wycherley, Yamamoto, and Choi. Pet. 42-44. Claim 3, which depends from claim 1, recites “a switch to switch the relay between one mode in which the voice of the call assistant is transmitted to the computer and another mode in which the voice of the call assistant is not transmitted to the computer but is instead transmitted over the telephone system to the hearing person.” Independent claim 10, from which claim 11 depends, recites similar limitations to those recited in independent claims 1 and 7.

IPR2013-00541
Patent 5,909,482

Independent claim 10 also recites, similarly to claim 3, “a switch to alternatively connect the voice of the call assistant to the computer or to the telephone system for transmission to the hearing person.” As the Specification of the ’482 patent explains, the switch “allows for the voice of the call assistant only to be directed to the hearing person at the appropriate times.” Ex. 1001, 7:7-9.

Choi describes a switch controlled by an operator who performs repetitive tasks over a telephone “to reroute outbound acoustic information from the telephone microphone temporarily to a speech-recognition subsystem, while the inbound acoustic information is still routed to the telephone ear piece” of the operator. Ex. 1009, 503. Choi also indicates that “the caller does not know when the person answering the phone is talking to the speech recognition subsystem.” *Id.* Petitioner relies on Choi for teaching or suggesting the switches recited in claims 3 and 10, respectively. Pet. 43-44.

Choi describes an operator-controlled switch that temporarily reroutes the operator’s voice to a speech recognition subsystem while the operator continues to hear the caller through the operator’s telephone earpiece. We find that Choi teaches or suggests the switch recited in claims 3 and 10.

Claim 11, which depends from independent claim 10, additionally recites “there are separate telephone lines of the telephone system connected between the call assistant and the hearing person and the call assistant and the deaf person.” For the reasons discussed previously, we determine that

IPR2013-00541
Patent 5,909,482

Wycherley teaches or suggests the recited telephone lines. *See* Pet. 44 (relying on Wycherley for the additional limitation recited in claim 11).

Regarding reasons to combine the references, according to Mr. Occhiogrosso, it would have been obvious to combine the switch of Choi with Wycherley’s relay service using speech recognition software to “make the operation of the relay feel more conversational to the normally-hearing caller who may not be familiar with relay services.” Ex. 1014 ¶ 53; *see also* Pet. 43 (citing Ex. 1014 ¶¶ 52-53).

Patent Owner indicates that Choi is “very similar to Yamamoto” and relies on similar reasons why there would be no motivation or reason to combine Choi with the teachings of Wycherley and Yamamoto. PO Resp. 54-55. For the reasons discussed above, we are not persuaded.

Rather, we conclude it would have been obvious to one skilled in the art to use the switch taught by Choi with Wycherley’s and Yamamoto’s voice recognition systems used in operator-assisted telephone services, because the prior art shows using known components according to their established functions. *See KSR*, 550 U.S. at 416.

We, therefore, determine that Petitioner has demonstrated by a preponderance of the evidence that claims 3, 10, and 11 would have obvious over Wycherley, Yamamoto, and Choi.

*3. Asserted Ground of Obviousness over
Wycherley, Yamamoto, and Vasile*

Petitioner asserts that claims 4, 13, and 14 would have been obvious over Wycherley, Yamamoto, and Vasile. Pet. 48-50 (referring to Pet. 46).

IPR2013-00541
Patent 5,909,482

Claim 4, which depends from claim 1, recites “buffering the voice of the hearing person between the telephone system and the earphone of the call assistant selectively under the control of the call assistant.” Independent claim 13, from which claim 14 depends, recites similar limitations to those recited in independent claims 1 and 7 and additionally recites a voice buffer controlled by the call assistant.

Vasile describes a telecommunications relay system employing automated text-to-speech for conversion of a text message entered by a hearing impaired person. Ex. 1003, Abstract. Vasile describes a relay system in which a live attendant is assigned, from a pool of attendants, to a call after completion of the text-to-speech conversion. *Id.* at 1:43-50. Because of a delay in assigning a live attendant, speech of the hearing person is stored in a voice buffer. *Id.* at 1:55-68; 5:47-65. A live attendant can use control signals to retrieve spoken messages from the voice buffer and to speed up or slow down the rate of the play from the voice buffer. *Id.* at 6:4-14. We agree with Petitioner that Vasile teaches or suggests the buffering limitations recited in claims 4 and 13. Pet. 46-47, 49-50.

Claim 14, which depends from independent claim 11, additionally recites “there are separate telephone lines of the telephone system connected between the call assistant and the hearing person and the call assistant and the deaf person.” For the reasons discussed previously, we determine that Wycherley teaches or suggests the recited telephone lines. *See* Pet. 49-50 (relying on Wycherley for the additional limitation recited in claim 14).

IPR2013-00541
Patent 5,909,482

Petitioner asserts, relying on Mr. Occhiogrosso's testimony, that it would have been obvious to combine Vasile's voice buffers with Wycherley's relay service "to efficiently support multiple relay calls from a shared pool of call attendants." Pet. 49 (citing Ex. 1014 ¶¶ 55-56).

Mr. Ludwick acknowledges that Vasile discloses "a traditional relay operation well known in the art that uses buffering to store the voice data of the hearing user until a call assistant is connected to the call." Ex. 2010 ¶ 79. Mr. Ludwick, however, goes on to assert that "[i]n my opinion there is nothing in the Vasile patent that suggests or teaches any type of revoicing or speech recognition and there is no rationale to combine the Vasile reference with Wycherley and Yamamoto." *Id.*; *see also* PO Resp. 55 (repeating verbatim Mr. Ludwick's opinion).

Weighing Mr. Occhiogrosso's testimony against Mr. Ludwick's testimony, we credit Mr. Occhiogrosso's testimony, which provides a reason for combining the references ("to efficiently support multiple relay calls with a shared pool of call attendants"). Mr. Ludwick's testimony that "there is nothing in the Vasile patent that suggests or teaches any type of revoicing or speech recognition" does not provide sufficient facts to support his opinion that "there is no rationale to combine" the references. Ex. 2010 ¶ 79. Moreover, Mr. Ludwick does not challenge that Vasile's use of buffering to store the voice data of the hearing user until a call assistant is connected to the call could not be combined with Wycherley and Yamamoto according to known methods or would not yield predictable results. *See KSR*, 550 U.S. at 416 (stating "[t]he combination of familiar elements

IPR2013-00541
Patent 5,909,482

according to known methods is likely to be obvious when it does no more than yield predictable results”). Thus, we conclude Petitioner has articulated sufficient rationale for combining Wycherley, Yamamoto, and Vasile.

For the reasons set forth above, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 4, 13, and 14 would have been obvious over Wycherley, Yamamoto, and Vasile.

4. Obviousness over Wycherley, Yamamoto, and Liebermann

Petitioner asserts that claim 6 would have been obvious over Wycherley, Yamamoto, and Liebermann. Pet. 53-54 (referring to Pet. 52). Claim 6, which depends from claim 1, requires that (i) a single telephone line be used to communicate between the call assistant and the hearing person and between the call assistant and the deaf person and (ii) the digital text message stream and the voice of the hearing person both be transmitted over that single telephone line.

Petitioner relies on Liebermann for teaching or suggesting the single telephone line recited in claim 6. Pet. 52-53 (citing Ex. 1010, 6:30-35; 7:10-14, 29-44, 53-54). Liebermann describes an electronic communication system that includes (i) a video apparatus for digitizing signing motions of a deaf person, (ii) an electronic translator for translating the digitized signing motions into words and phrases, and (iii) an electronic output for the words and phrases. Ex. 1010, Abstract. Liebermann’s electronic communication system uses a central processing facility that processes information representative of sign language motions, made by the hearing-impaired person, to its verbal text equivalent. *Id.* at 5:7-11. The central processing

IPR2013-00541
Patent 5,909,482

facility also transforms speech from the normally hearing person to text, which, in turn, is transformed into sign language motions for display to the hearing-impaired person. *Id.* at 5:14-34.

Liebermann further describes a telephone that “is equipped with a microphone and a speaker instead of . . . a second telephone channel” and can be used for a hearing impaired person to communicate with a hearing person in close proximity. *Id.* at 7:29-35 (indicating a single telephone line can be used). “The signing motion of the deaf person [is] processed by the [central processing facility] and is transmitted back to the device as a normal voice transmission which the speaker renders as speech to the normally hearing person.” *Id.* at 7:35-39. The speech of the hearing person “is picked up by the microphone and sent to” the central processing facility for processing. *Id.* at 7:39-41; 5:18-20. The central processing facility sends the text as identifiers, which are converted into animated images, or as “animated sign language motions.” *Id.* at 5:25-34. “The result is an animated content on the [display] of the communicator which portrays in sign language the spoken content of the normally hearing person.” *Id.* at 7:35-43.

Based on the previous description of Liebermann, we determine that an embodiment of Liebermann’s communicator, through which a hearing impaired person communicates with a normally hearing person, uses a single telephone line (i) to communicate with a central processing facility to transmit the voice of the hearing person to the central processing facility,

IPR2013-00541
Patent 5,909,482

and (ii) to receive information equivalent to the animated content portraying sign language from the central processing facility.

Thus, we conclude this embodiment of Liebermann's communicator teaches or suggests a single telephone line used in communication between the call assistant (at Liebermann's center) and a hearing person, and between the call assistant (at Liebermann's center) and a deaf person. Liebermann also teaches or suggests text identifiers equivalent to animated content portraying sign language (the digital text message stream) are transmitted over the single telephone line. Liebermann further teaches or suggests transmitting the voice of the hearing person to the central processing facility. Accordingly, Liebermann teaches or suggests the additional limitation recited in claim 6—"a single telephone line of the telephone system used to communicat[e] between the call assistant and the hearing person and the call assistant and the deaf person, the digital text message stream and the voice of the hearing person both being transmitted over that single telephone line."

Patent Owner challenges this conclusion, indicating that Liebermann discloses a system involving two telephone lines. PO Resp. 46-47 (citing Ex. 1010, 6:64-7:3, Fig. 2). Patent Owner, however, does not acknowledge or otherwise sufficiently address Liebermann's express teaching of a single telephone line embodiment (Ex. 1010, 7:29-44), on which Petitioner relies.

Petitioner, relying on Mr. Occhiogrosso's testimony, contends it would have been obvious to combine Liebermann's communicator with Wycherley's relay "to improve the speed and efficiency with which the

IPR2013-00541
Patent 5,909,482

communicator of *Liebermann* could facilitate a conversation between a deaf person and a hearing person.” Pet. 54 (citing Ex. 1014 ¶¶ 58-59).

Patent Owner challenges Petitioner’s reason (PO Resp. 55-56), relying on Mr. Ludwick’s testimony that the Liebermann reference teaches an “extremely complicated system” and, based on his personal knowledge, “Mr. Liebermann’s invention was universally perceived to be non-workable” (Ex. 2010 ¶ 86). Accordingly, Patent Owner asserts that “a [person of ordinary skill in the art] would have dismissed the Liebermann reference out of hand.” PO Resp. 55 (citing Ex. 2010 ¶ 86).

We find credible Mr. Occhiogrosso’s articulated reasoning that has some rational underpinning. *See KSR*, 550 U.S. at 418 (“there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). We are not persuaded by Mr. Ludwick’s reasoning, which broadly criticizes Mr. Liebermann’s *invention* without providing underlying data or facts to support Mr. Ludwick’s conclusion about the Liebermann *reference*. *See* 37 C.F.R. § 42.65 (indicating expert testimony that does not disclose underlying facts or data on which the opinion is based is entitled to little or no weight).

Moreover, Mr. Ludwick alternatively bases his opinion that a person of skill in the art would have no reason to consider Liebermann on the “party” call embodiment of Liebermann that used two telephone lines. PO Resp. 56. The asserted combination of Wycherley, Yamamoto, and Liebermann, however, does not involve the two telephone line “party” call embodiment of Liebermann. Rather, the asserted combination relies on

IPR2013-00541
Patent 5,909,482

Liebermann's single telephone line embodiment. Thus, Mr. Ludwick's alternative rationale is not persuasive because it does not address sufficiently the combination asserted by the Petitioner.

We, therefore, determine that Petitioner has demonstrated by a preponderance of the evidence that claim 6 would have been obvious over Wycherley, Yamamoto, and Liebermann.

5. Obviousness over Wycherley, Yamamoto, Liebermann, and Other References

Each of dependent claims 9, 12, and 15 further recites a single telephone line limitation substantially similar to the limitation recited in claim 6. Petitioner asserts each of claims 9, 12, and 15 would have been obvious over Wycherley, Yamamoto, Liebermann, and another reference.

Specifically, Petitioner asserts claim 9, which depends from independent claim 7, would have been obvious over Wycherley, Yamamoto, Jones, and Liebermann. Pet. 55-56. Petitioner also asserts claim 12, which depends from independent claim 10, would have been obvious over Wycherley, Yamamoto, Choi, and Liebermann. *Id.* at 56-57. Petitioner further asserts claim 15, which depends from independent claim 13, would have been obvious over Wycherley, Yamamoto, Vasile, and Liebermann. *Id.* at 59.

For dependent claims 9, 12, and 15, Petitioner substantially relies on the same analysis and supporting evidence described previously that (i) claim 6 would have been obvious over Wycherley, Yamamoto, and Liebermann and (ii) each of independent claims 7, 10, and 13 would have

IPR2013-00541
Patent 5,909,482

been obvious over Wycherley, Yamamoto, and various other references.¹⁴ *See id.* at 55-56, 57, 59. Petitioner also asserts that it would have been obvious to combine Liebermann with the references purportedly rendering each of the independent claims obvious for the same reasons it would have been obvious to combine the references asserted against each independent claim. *See Pet.* 55-56, 57, 59.

For the reasons we explained previously, we determine that Petitioner has demonstrated by a preponderance of the evidence that (i) claim 9 would have been obvious over Wycherley, Yamamoto, Jones, and Liebermann; (ii) claim 12 would have been obvious over Wycherley, Yamamoto, Choi, and Liebermann; and (iii) claim 15 would have been obvious over Wycherley, Yamamoto, Vasile, and Liebermann.

III. CONCLUSION

Patent Owner's Motions to Exclude the testimony of Mr. Occhiogrosso and the Yamamoto reference are denied. Petitioner has proven by a preponderance of the evidence that claims 1-15 of the '482 patent are unpatentable on the following grounds:

A. Claims 1 and 5 as anticipated under 35 U.S.C. § 102(e) by Ryan;

¹⁴ Specifically, Petitioner asserts that independent claim 7 would have been obvious over Wycherley, Yamamoto, and Jones; independent claim 10 would have been obvious over Wycherley, Yamamoto, and Choi; and independent claim 13 would have been obvious over Wycherley, Yamamoto, and Vasile.

IPR2013-00541
Patent 5,909,482

B. Claims 1 and 5 as unpatentable for obviousness under 35 U.S.C. § 103(a) over the combination of Wycherley and Yamamoto;

C. Claims 2, 7, and 8 as unpatentable for obviousness under 35 U.S.C. § 103(a) over the combination of Wycherley, Yamamoto, and Jones;

D. Claims 3, 10, and 11 as unpatentable for obviousness under 35 U.S.C. § 103(a) over the combination of Wycherley, Yamamoto, and Choi;

E. Claims 4, 13, and 14 as unpatentable for obviousness under 35 U.S.C. § 103(a) over the combination of Wycherley, Yamamoto, and Vasile;

F. Claim 6 as unpatentable for obviousness under 35 U.S.C. § 103(a) over the combination of Wycherley, Yamamoto, and Liebermann;

G. Claim 9 as unpatentable for obviousness under 35 U.S.C. § 103(a) over the combination of Wycherley, Yamamoto, Jones, and Liebermann;

H. Claim 12 as unpatentable for obviousness under 35 U.S.C. § 103(a) over the combination of Wycherley, Yamamoto, Choi, and Liebermann; and

I. Claim 15 as unpatentable for obviousness under 35 U.S.C. § 103(a) over the combination of Wycherley, Yamamoto, Vasile, and Liebermann.

IPR2013-00541
Patent 5,909,482

IV. ORDER

Accordingly, it is hereby:

ORDERED that Petitioner has demonstrated by a preponderance of the evidence that claims 1-15 of U.S. Patent No. 5,909,482 are unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude the testimony of Mr. Occhiogrosso (Paper 43) is denied;

FURTHER ORDERED that Patent Owner's Motion to Exclude the Yamamoto reference (Paper 44) is denied; and

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

IPR2013-00541
Patent 5,909,482

PETITIONER:

Brian W. Oaks
Bryant C. Boren Jr.
Harper S. Batts
Adam F. Smoot
Joseph Gray
BAKER BOTTS L.L.P.
brian.oaks@bakerbotts.com
bryant.c.boren@bakerbotts.com
harper.batts@bakerbotts.com
adam.smoot@bakerbotts.com
joseph.gray@bakerbotts.com

PATENT OWNER:

Michael Jaskolski
Martha Snyder
Nikia L. Gray
Michael J. Curley
QUARLES & BRADY LLP
michael.jaskolski@quarles.com
martha.snyder@quarles.com
nikia.gray@quarles.com
Michael.curley@quarles.com

Trials@uspto.gov
Tel: 571-272-7822

Paper 78
Entered: December 1, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, LLC,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Case IPR2013-00541
Patent 5,909,482

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

BENOIT, *Administrative Patent Judge*.

DECISION
Denying Patent Owner's Request for Rehearing
37 C.F.R. § 42.71

IPR2013-00541
Patent 5,909,482

INTRODUCTION

CaptionCall, LLC (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–15 of U.S. Patent No. 5,909,482 (Ex. 1001, “the ’482 patent”). Paper 1 (“Pet.” or “Petition”). We instituted an *inter partes* review for claims 1–15. Paper 6. In our Final Written Decision, we determined that Petitioner had shown by a preponderance of the evidence that claims 1–15 were unpatentable. Paper 76 (“Final Dec.” or “Final Decision”). Patent Owner, Ultratec, Inc., requests a rehearing of the Final Decision by an expanded panel. Paper 77 (“Req.” or “Request”).

Having considered Patent Owner’s Request, we decline to modify our Final Decision and deny the Request for Rehearing.

ANALYSIS

A request for rehearing must identify specifically all matters the party believes we misapprehended or overlooked, and the place where each matter was addressed previously in a motion, an opposition, or a reply. 37 C.F.R. § 42.71(d). Additionally, Patent Owner, as the party challenging the Final Decision, has the burden of showing the decision should be modified. *Id.*

We first address Patent Owner’s allegations of matters that we misapprehended or overlooked (Req. 1–14). We then address Patent Owner’s allegations of improper panel composition (*id.* at 1, 14–15).

Matters Allegedly Misapprehended or Overlooked

Patent Owner alleges we misapprehended or overlooked matters involving the status of an asserted prior art reference, admission of evidence, claim construction, and evidence of secondary considerations. We address each issue in turn.

IPR2013-00541
Patent 5,909,482

Status of Ryan as Prior Art

In the Final Decision, in response to Patent Owner’s argument that Ryan¹ did not qualify as prior art because it was not enabled (Paper 28, 16–25 (“PO Resp.”)), we determined that Ryan was enabled prior to the date of invention of the challenged patent in 1997 and, therefore, qualified as prior art to the challenged claims. Final Dec. 23–28.

In its Request for Rehearing, Patent Owner argues, as it did in its Patent Owner Response, that for a patent to serve as prior art the patent must be enabled as to its own earliest claimed effective filing date in 1994. Req. 1–5; PO Resp. 16–20. We addressed this argument in the Final Decision and additionally examined the evidence of record as to whether Ryan would have enabled one of ordinary skill in the art to make the invention without undue experimentation prior to the date of invention of the challenged patent. Final Dec. 23–28. We are not persuaded that we overlooked or misapprehended Patent Owner’s prior argument or made an erroneous interpretation of law.

Patent Owner additionally argues that our consideration of Ryan as prior art as of the date of invention of the challenged patent (1997) was “substantially different than the adopted ground” at issue in the *inter partes* review because the Petition did not discuss this issue. Req. 2, 5 (“The Petition only discussed potential priority dates in 1994 and 1996, not 1997.”).

We disagree. As noted in our Decision to Institute, *inter partes* review was instituted for “[c]laims 1 and 5 as anticipated under 35 U.S.C. § 102 by Ryan.” Paper 6 (“Decision to Institute”), 30 (IV. ORDER).

¹ U.S. Patent No. 5,809,112 (Ex. 1004).

IPR2013-00541
Patent 5,909,482

During the *inter partes* review, Patent Owner argued, in its Patent Owner Response, that Ryan did not anticipate the challenged claims (PO Resp. 16–38), including a challenge to the prior art status of Ryan noted previously (*id.* at 16–23). The Final Decision discussed the instituted ground of anticipation by Ryan and addressed Patent Owner’s assertions, including those regarding the prior art status of Ryan. Final Dec. 21–35.

In a similar vein, Patent Owner argues it should have received express notice “that enablement would be assessed in 1997” so it could submit evidence concerning enablement in 1997. Req. 6. We are not persuaded by this argument. First, Patent Owner expressly argued this issue in a section of its Patent Owner Response titled “Ryan Was Not Enabled At Any Point Before The Date Of Invention Of The [challenged patent].” PO Resp. 23 (Section VIII.B.2); *see id.* (asserting the date of invention of June 23, 1997). Thus, Patent Owner submitted arguments concerning enablement in 1997, the very issue about which Patent Owner now contends it was not informed and so missed the opportunity to submit relevant evidence. Moreover, as noted in our Final Decision, Patent Owner and Petitioner did not dispute that the “re-voicing limitation” was enabled on June 23, 1997, with the release of commercial voice recognition software to the public. Final Dec. 19–20 (citing PO Resp. 23; Reply 4; Exs. 2011, 2012, and 2013). As noted in our Final Decision, public availability of the commercial voice recognition software as of 1997 is corroborated by the challenged patent itself. Final Dec. 24–25 (quoting Ex. 1001, 5:50–57).

Patent Owner further asserts we overlooked evidence that the invention was conceived and diligently reduced to practice before Ryan was enabled. Req. 5–6 (citing Exs. 2011, 2012, 2013). We did not overlook this

IPR2013-00541
Patent 5,909,482

evidence. Rather, we examined this evidence in our Final Decision and found the evidence insufficient. Final Dec. 24 (“Patent Owner’s earliest proffered evidence dates back only to August 5, 1997, not to June 23, 1997,” when Ryan was enabled); *see id.* at 23–24 (analyzing Patent Owner’s evidence offered in Exhibits 2011, 2012, and 2013).

For these reasons, we are not persuaded that we overlooked or misapprehended Patent Owner’s prior argument or made an erroneous interpretation of law concerning the availability of Ryan as prior art to the challenged claims.

Yamamoto Transcript

Patent Owner contends we circumvented our own rules in admitting the transcript² of a videotaped interview with Mr. Seiichi Yamamoto, the first named author of the Yamamoto reference.³ Req. 6–10; *see* Paper 61 (Decision on Petitioner’s Motion to Submit Supplemental Information). The interview was conducted in connection with a related district court proceeding between the parties. *See* Final Dec. 37–38. In the district court proceeding, the parties stipulated that the Yamamoto transcript—a stenographic record of the English portion of the interview (questions from both parties and an interpreter’s translation of Mr. Yamamoto’s testimony)—would be treated as sworn deposition testimony in the district court proceeding and, “[w]ith respect to other proceedings, the stenographic

² Ex. 2018 (Videoconference Deposition of Seiichi Yamamoto, Aug. 20, 2014) (“Yamamoto transcript”).

³ Yamamoto is a Japanese language document—Seiichi Yamamoto and Masanobu Fujioka, *New Applications of Voice Recognition*, Proc. JASJ Conf. (March 1996) (Ex. 1005; Ex. 1006 (English language translation)).

IPR2013-00541
Patent 5,909,482

record will be treated as a sworn deposition taken in [the district court proceeding] at which both parties appeared and had the opportunity to question the witness.” Ex. 1062 ¶ 5 (Stipulation Regarding Seiichi Yamamoto). As explained in our Final Decision, we granted Petitioner’s motion to submit the Yamamoto transcript as supplemental information under 37 C.F.R. § 42.123(b) relating to the prior art status of Yamamoto and, after supplemental briefing by the parties, determined the Yamamoto transcript was admissible. Final Dec. 36–41.

Patent Owner argues in its Request for Rehearing that the Yamamoto transcript is inadmissible because it does not satisfy the requirements that all testimony, other than uncompelled direct testimony, must be in the form of a deposition transcript, 37 C.F.R. § 42.53(a), and that the witness shall be sworn, 37 C.F.R. § 42.53(f)(1). Req. 7. Therefore, according to Patent Owner, the Yamamoto transcript was “not taken, sought, or filed in accordance with these regulations [and] is not admissible.” *Id.* (citing 37 C.F.R. § 42.61(a)). Rule 42.53, however, is titled “Taking Testimony” and applies only to testimony taken “during a testimony period set by the Board” for purposes of a particular review proceeding. 37 C.F.R. § 42.53(b); *see also* 37 C.F.R. § 42.53(c) (providing time limits set by the Board); *id.* § 42.53(d) (providing notice requirements). As stated in our Final Decision, Petitioner sought to admit the Yamamoto transcript as supplemental information, not as deposition testimony taken in this *inter partes* proceeding. Final Dec. 37. And based on the parties’ stipulation in district court, we treated the Yamamoto transcript as sworn deposition testimony taken in the district court. *Id.* at 38–41 (citing Ex. 1062 ¶ 5). Petitioner filed the Yamamoto transcript as supplemental information under

IPR2013-00541
Patent 5,909,482

37 C.F.R. § 42.123(b), establishing that the Yamamoto transcript reasonably could not have been obtained earlier and that its consideration was in the interests of justice. Paper 61, 7–8. Therefore, Petitioner’s filing of the Yamamoto transcript complied with Board rules, and we properly relied on it in determining the public accessibility of Yamamoto. *See* Final Dec. 36–41.

Tangentially to its contentions regarding the Yamamoto transcript, Patent Owner contends we improperly admitted Petitioner’s evidence regarding public accessibility of the Yamamoto reference in May 1996. Req. 9. Patent Owner’s contention is inapposite. We determined that the Yamamoto reference was publicly accessible in March 1996, not May 1996. Final Dec. 44. Further, in our Final Decision, we stated that “[b]ecause we conclude that Yamamoto was publicly accessible in March 1996, we need not address Petitioner’s argument and evidence regarding public accessibility in May 1996.” Final Dec. 45 n.13.

Having reviewed Patent Owner’s Request, we are not persuaded we misapprehended or overlooked any matter relating to the admissibility of the Yamamoto transcript or other evidence related to the Yamamoto reference.

Claim Construction

Because the parties articulated different views on how “trained to the voice of the call assistant” should be interpreted relative to the asserted prior art, we analyzed Patent Owner’s implied constructions of the term and Patent Owner’s declarant’s testimony concerning the same. Final Dec. 8–10. In its Request for Rehearing, Patent Owner argues that we “misapprehended claim construction law” in determining software “trained to the voice of the call assistant” was not limited to training to the voice of

IPR2013-00541
Patent 5,909,482

one and only one particular call assistant and did not preclude voice recognition software that is designed or built in advance of implementation at the source code level to the voice of a call assistant. Req. 10–12.

First, Patent Owner contends that we erroneously relied on the Specification’s disclosure of “voice pattern.” Req. 10–12. We disagree that our reliance on the Specification’s “Brief Summary of the Invention,” which indicates “a speech recognition computer program which has been trained to the voice *pattern* of the call assistant,” was improper. *See* Final Dec. 8–9 (quoting Ex. 1001, 2:46–48 (emphasis added)). Rather, in our Final Decision, we contrasted the Specification’s use of “voice *pattern* of the call assistant” in its “Brief Summary of the Invention” with its use of “a voice recognition software package which is specifically trained to the voice of that *particular* call assistant” in the context of a particular embodiment of the invention shown in Figure 1. Final Dec. 8–9 (quoting Ex. 1001, 2:46–48, 5:44–47).

Based on the evidence in the Specification (including the Specification’s disclosure of “a voice pattern”), we determined that the Specification did not indicate expressly that the voice recognition software is trained to the voice of only that particular call assistant or otherwise indicate that the voice recognition software is trained for the voice of only one call assistant. Final Dec. 9. We concluded that “we will not limit ‘trained to the voice of the call assistant’ to require training to the voice of only one particular call assistant, because the claim language encompasses the invention as disclosed in the Specification—software trained to a voice *pattern* of a call assistant.” *Id.* at 10 (citing Ex. 1001, 2:41–49 (“Summary of the Invention”)).

IPR2013-00541
Patent 5,909,482

We turn next to Patent Owner’s argument in its Request for Rehearing that we erred in concluding that “trained to the voice of the call assistant” does not include a temporal constraint that precludes voice recognition software that is designed or built in advance of implementation at the source code level to the voice pattern of a call assistant. Req. 12–13 (citing Final Dec. 8). According to Patent Owner, it did not have an opportunity to address this issue because it was raised after briefing had concluded. Req. 12–13.

On the contrary, a central dispute between the parties during the *inter partes* review was whether Ryan discloses “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in independent claims 1 and 5. Final Dec. 29 (citing Pet. 15–16, 18–19; PO Resp. 24–37). As noted in our Final Decision, Patent Owner argued in its Patent Owner Response that Ryan does not disclose the recited “voice recognition software trained to the voice of the call assistant” because Ryan discloses voice recognition software that is “designed.” Final Dec. 32 (citing PO Resp. 26–27). More specifically, according to Patent Owner, Ryan discloses software that is designed in advance of implementation at the source code level and, therefore, the software is not trained to the voice of a call assistant. *Id.* Thus, Patent Owner initially raised in its Patent Owner Response the issue whether “trained to the voice of the call assistant” encompasses software designed in advance of implementation at the source code level. Therefore, we do not agree with Patent Owner that it did not have an opportunity to address this issue, which Patent Owner first raised itself.

IPR2013-00541
Patent 5,909,482

Along these lines, Patent Owner also asserts in its Request for Rehearing that we overlooked an alleged admission at the Hearing by Petitioner that the claim language inherently includes a temporal constraint that precludes training when the software is designed in advance of implementation at the source code level. Req. 12–13 (citing Paper 75 (Hearing Transcript), 17:3–5). We are not persuaded that we did so. Rather, we considered Petitioner’s statement at the Hearing in light of the evidence of record.

In our Final Decision, we determined that the Specification discloses that the voice recognition software package is trained but does not indicate when or how the training occurs. Final Dec. 9 (citing Ex. 1001, 2:46–48, 5:44–47). We rejected Patent Owner’s argument, relying on its declarant, that software “designed” is not software that is “trained to recognize individual voices” because we found insufficient support for Patent Owner’s contention. Final Dec. 9 (citing PO Resp. 27). As we explained in our Final Decision, Patent Owner’s declarant testified that a person of ordinary skill in the art would not have understood “trained” software to include “designed” software because technology to train software to recognize individual voices did not exist in 1994 and was not used in telecommunications relay service at that time. Final Dec. 9 (citing PO Resp. 27; Ex. 2010 ¶ 22). We weighed this testimony, which relied on capabilities of technology available in 1994, and concluded this testimony had little probative value of the understanding of one of ordinary skill in the art at the time of invention because the year of invention was 1997. Final Dec. 9. The weight we gave to Patent Owner’s declarant’s testimony reflected the parties’ agreement that commercial software to train software to recognize individual voices was available in

IPR2013-00541
Patent 5,909,482

1997, as discussed previously. *See* Final Dec. 24–25 (citing PO Resp. 23; Reply 4; Exs. 2011, 2012, and 2013). In other words, the understanding of one of ordinary skill as of 1997 was crucial given the shift in technology at that time, and Patent Owner’s declarant’s testimony was only reflective of the understanding prior to this technology shift.

Moreover, Petitioner’s declarant indicates that one of ordinary skill in the art would have understood that Ryan describes speech recognition software trained to the voice of a call assistant. Ex. 1053 ¶¶ 41–43. The testimony of Petitioner’s declarant is supported further by prior art of record that indicates voice recognition software trained to a particular user in relay systems was known. *See* Ex. 1053 ¶ 42 (citing Ex. 1002, 4:37–49). This testimony further undermines Patent Owner’s position.

Thus, we do not agree with Patent Owner that we erred by not considering Petitioner’s purported “admission” made at the Hearing. Rather, we considered Petitioner’s statement in determining that Ryan’s description of benefits provided by voice recognition software that “is specifically designed to recognize the voice of particular relay agents” (Ex. 1004, 4:33–38) disclosed the trained software recited in both claims of the ’314 patent. *See* Final Dec. 28–35.

For the reasons given, we are not persuaded that we misapprehended claim construction law or that Patent Owner was not provided with an opportunity to address claim construction of “trained to the voice of the call assistant.”

Evidence of Secondary Considerations

Patent Owner alleges that we improperly made a determination of obviousness before separately analyzing Patent Owner’s evidence of

IPR2013-00541
Patent 5,909,482

secondary considerations. Req. 13–14. We disagree. Rather, in Section II.E of our Final Decision, we determined the scope and content of the asserted prior art. Final Dec. 45–46. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). And we discussed the claimed subject matter relative to the asserted prior art, which included identifying differences between the claimed subject matter and the prior art in the context of the ordinary level of skill in the art and included a determination that Petitioner, with support of its declarant, had articulated a sufficient reason to support a conclusion of obviousness. Final Dec. 46–56; *see id.* In Section II.E, we also analyzed Patent Owner’s secondary considerations of nonobviousness. Final Dec. 56–60. Only after that discussion of obviousness in Section II.E of around fifteen pages did we discuss the ultimate conclusion of obviousness of the claimed subject matter. Final Dec. 60.

Unlike the International Trade Commission in *Apple Inc. v. International Trade Commission*, 725 F.3d 1356, 1365 (Fed. Cir. 2013), cited by Patent Owner in its Request, we considered evidence relating to the *Graham* factors—including objective evidence of secondary considerations presented by Patent Owner—before determining the ultimate issue of obviousness. *Compare* Req. 13 *with* Final Dec. 45–60; *see Apple*, 725 F.3d at 1365 (“The ITC, however, never mentioned, much less weighed as part of the obviousness analysis, the secondary consideration evidence . . . presented.”). As noted in our Final Decision, we determined that:

Accordingly, Patent Owner fails to provide sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner’s

IPR2013-00541
Patent 5,909,482

evidence of obviousness against Patent Owner's asserted objective evidence of nonobviousness, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 5 would have been obvious over Wycherley and Yamamoto.

Final Dec. 60. Thus, we recognized that the "ultimate conclusion of obviousness is a legal conclusion to be reached after weighing all the evidence on both sides." *Apple*, 725 F.3d at 1365.

Testimony of Patent Owner's Declarant

Patent Owner alleges we improperly dismissed Patent Owner's declarant's personal observations that secondary considerations of nonobviousness were commensurate in scope with the claimed subject matter. Req. 13–14. Patent Owner asserts that its declarant's testimony consisted of personal observations by an expert witness. Req. 14.

As noted in our Final Decision, to show the requisite nexus, Patent Owner relied on its declarant's testimony describing his visit to CapTel, Inc.'s relay center in Madison, Wisconsin. Final Dec. 59 (citing Ex. 2002 ¶ 47). We found Patent Owner's declarant's "conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention, and so do not establish the requisite nexus between the merits of the claimed invention and the evidence of secondary considerations." Final Dec. 59–60.

We did not dismiss this testimony; rather, we found it insufficient. To illustrate this insufficiency, in our Final Decision, we cited an example of the testimony provided for the disputed limitation "a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call

IPR2013-00541
Patent 5,909,482

assistant to translate the words spoken in voice by the call assistant into a digital text stream”:

I personally observed that the CapTel Service meets this claim element. I further confirmed this from my own knowledge of CapTel Service. This feature of the CapTel Service relay is present when the Service is used with each of the CapTel Phones and has always been included as part of the CapTel Service.

Final Dec. 59 (citing Ex. 2002 ¶ 48 (page 28)). We found that, because the declarant’s conclusions were based on personal observations, without sufficient supporting facts or data, his testimony provided little probative value. Final Dec. 59.

We reject Patent Owner’s assertion that, because there is no testimony to the contrary, we must accept its declarant’s “personal observations” on the claimed features being present in the system provided by CapTel Service and thereby conclude a nexus exists. Req. 14. We cited proper authority in the Final Decision for why we gave little probative value to this testimony of Patent Owner’s declarant—such “conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention.” Final Dec. 59 (citing *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”)).

Conclusion

Having reviewed Petitioner’s Request, we are not persuaded we misapprehended or overlooked any matter.

IPR2013-00541
Patent 5,909,482

Alleged Panel Composition Errors

Patent Owner requests rehearing before an expanded panel and additionally asserts we exceeded our authority by issuing a Final Written Decision “with less than a full panel.” Req. 1, 14–15. Panel composition for an *inter partes* review is specified in 35 U.S.C. § 6(c), which states “[e]ach . . . inter partes review shall be heard by at least 3 members of the Patent Trial and Appeal Board, who shall be designated by the Director.” The Director’s authority under 35 U.S.C. § 6 to designate panels has been delegated to the Chief Judge. *See* Patent Trial and Appeal Board Standard Operating Procedure 1 (Rev. 14) (May 8, 2015) (“PTAB SOP 1”).

As acknowledged by Patent Owner (Req. 14–15), the Final Decision was decided by three administrative patent judges, who are members of the Board. *See* 35 U.S.C. § 6(a) (indicating that administrative patent judges, along with various members of the United States Patent and Trademark Office, constitute the Patent Trial and Appeal Board). The three administrative patent judges were designated by the Chief Judge according to PTAB SOP 1, titled “Assignment of Judges to Merits Panels, Interlocutory Panels, and Expanded Panels.” The Board, therefore, complied with the statutory requirements for panel composition. Accordingly, we did not issue the Final Decision with less than a “full panel,” as Patent Owner contends.

Moreover, the Chief Judge has discretion to designate judges to decide *inter partes* reviews. *See* PTAB SOP 1 at 2 (§ II.D) (“In general, the Chief Judge will designate a judge or judges, as appropriate, for all matters for AIA reviews.”); *see also* *AOL Inc. v. Coho Licensing LLC*, Case IPR2014-00771, slip op. at 2 (PTAB Mar. 24, 2015) (Paper 12)

IPR2013-00541
Patent 5,909,482

(informative) (setting forth that the designation of panel members is within the sole authority of the Chief Judge, as delegated by the Director). Patent Owner's Request, therefore, does not show the composition of the panel that issued the Final Decision was arbitrary, capricious, or an abuse of discretion by the Board.

Patent Owner suggests an expanded panel is warranted to decide the Request in view of the panel composition and various allegations that we misapprehended the law. Req. 1. For the reasons given, Patent Owner does not persuade us that we misapprehended the law or the panel of three judges was deficient. Further, the Board's procedures provide examples of reasons for expanding a panel, none of which apply here. PTAB SOP 1 at 3 (§ III.A). For example, an expanded panel may be appropriate when "serious questions have been raised about the continuing viability of an apparently applicable precedential decision of the Board, or a panel of the Board renders a decision that conflicts with a precedential decision of the Board or an authoritative decision of the Board's reviewing courts." *Id.* Patent Owner's Request does not show a conflict or other reason that weighs in favor of panel expansion. Even so, the panel informed the Chief Judge, who has authority to expand a panel, of Patent Owner's request, and the Chief Judge declined to expand the panel. *See* PTAB SOP 1 at 4 (§ III.B). ("The Chief Judge will determine when an expanded panel is to be designated."); *see also Apple Inc. v. Rensselaer Polytechnic Inst.*, Case IPR2014-00319, slip op. at 2 n.1 (PTAB Dec. 12, 2014) (Paper 20) (indicating only the Chief Judge, acting on behalf of the Director, may act to expand a panel and panels do not authorize panel expansion).

IPR2013-00541
Patent 5,909,482

ORDER

It is hereby ORDERED that Petitioner's Request for Rehearing is
denied.

IPR2013-00541
Patent 5,909,482

PETITIONER:

Brian W. Oaks
Bryant C. Boren Jr.
Harper S. Batts
Adam F. Smoot
Joseph Gray
BAKER BOTTS L.L.P.
brian.oaks@bakerbotts.com
bryant.c.boren@bakerbotts.com
harper.batts@bakerbotts.com
adam.smoot@bakerbotts.com
joseph.gray@bakerbotts.com

PATENT OWNER:

Michael Jaskolski
Martha Snyder
Nikia L. Gray
Michael J. Curley
QUARLES & BRADY LLP
michael.jaskolski@quarles.com
martha.snyder@quarles.com
nikia.gray@quarles.com
Michael.curley@quarles.com

Trials@uspto.gov
571-272-7822

Paper 74
Entered: March 3, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, L.L.C.,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Case IPR2013-00544
Patent 8,213,578 B2

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

PETTIGREW, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed herein, Petitioner has shown by a preponderance of the evidence that claims 7–11 of U.S. Patent No. 8,213,578 B2 (Ex. 1001, “the ’578 patent”) are unpatentable.

IPR2013-00544
 Patent 8,213,578 B2

A. Procedural History

Petitioner, CaptionCall, L.L.C., filed a Petition for *inter partes* review of claims 7–11 of the '578 patent. Paper 1 (“Pet.”). Patent Owner, Ultratec, Inc., did not file a Preliminary Response. On March 5, 2014, pursuant to 35 U.S.C. § 314, we instituted an *inter partes* review for claims 7–11 of the '578 patent on the following grounds of unpatentability:

Reference(s)	Basis	Challenged Claims
Ryan ¹	35 U.S.C. § 102(e)	7
Wycherley ² and Yamamoto ³	35 U.S.C. § 103(a)	7
Ryan and McLaughlin ⁴	35 U.S.C. § 103(a)	7–11

Paper 6 (“Inst. Dec.”).

Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 27, “PO Resp.”), and Petitioner filed a Reply to Patent Owner’s Response (Paper 32, “Reply”). Patent Owner also filed Motions to Exclude Evidence. Paper 41 (“PO Mot. to Exc. Occhiogrosso”); Paper 42 (“PO Mot. to Exc. Yamamoto”). Petitioner filed a combined Opposition (Paper 51, “Pet. Opp. to Mots. to Exc.”) to Patent Owner’s Motions, and Patent Owner filed a Reply to Petitioner’s Opposition (Paper 54, “PO Reply

¹ U.S. Patent No. 5,809,112, issued Sept. 15, 1998 (Ex. 1004, “Ryan”).

² U.S. Patent No. 5,163,081, issued Nov. 10, 1992 (Ex. 1005, “Wycherley”).

³ Yamamoto is a Japanese language document—Seiichi Yamamoto and Masanobu Fujioka, *New Applications of Voice Recognition*, Proc. JASJ Conf. (March 1996) (Ex. 1006). Unless indicated otherwise, all subsequent references to Yamamoto in this decision will refer to its English language translation (Ex. 1007). Petitioner provided a revised certification attesting to the accuracy of the translation. *See* Ex. 1069; 37 C.F.R. § 42.63(b).

⁴ U.S. Patent No. 6,181,736 B1, issued Jan. 30, 2001 (Ex. 1009, “McLaughlin”).

IPR2013-00544
Patent 8,213,578 B2

to Opp. to Mots. to Exc.”). Also, Petitioner filed a Motion for Leave to File Supplemental Evidence Regarding Yamamoto (Paper 48), and Patent Owner filed an Opposition to Petitioner’s Motion (Paper 53). In response to the Board’s order (Paper 59), Petitioner filed additional briefing (Paper 61) regarding the public availability of Yamamoto. In turn, Patent Owner filed a response (Paper 63), to which Petitioner filed a Reply (Paper 64).

An oral hearing was held on November 19, 2014.⁵

B. Related Proceedings

Petitioner represents that Patent Owner asserted the ’578 patent against Petitioner’s parent company in the following district court proceeding: *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.). Pet. 2. Petitioner also represents that in the same district court proceeding, Patent Owner asserted the following patents at issue in related *inter partes* reviews: U.S. Patent No. 6,233,314 (Case IPR2013-00540), U.S. Patent No. 5,909,482 (Case IPR2013-00541), U.S. Patent No. 7,319,740 (Case IPR2013-00542), U.S. Patent No. 7,555,104 (Case IPR2013-00543), U.S. Patent No. 6,594,346 (Case IPR2013-00545), U.S. Patent No. 6,603,835 (Case IPR2013-00549), and U.S. Patent No. 7,003,082 (Case IPR2013-00550). Pet. 2.

⁵ This proceeding and IPR2013-00540, IPR2013-00541, IPR2013-00542, IPR2013-00543, IPR2013-00545, IPR2013-00549, and IPR2013-00550 involve the same parties and similar issues. The oral arguments for all eight reviews were merged and conducted at the same time. A transcript of the oral hearing is included in the record as Paper 73.

IPR2013-00544
Patent 8,213,578 B2

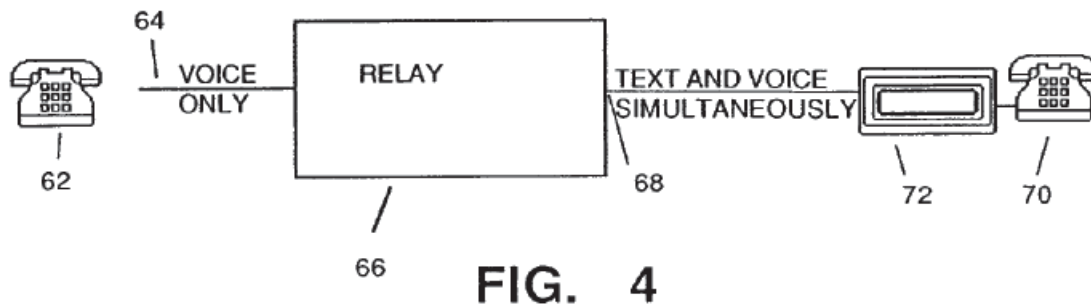
C. The '578 Patent

The '578 patent describes a system that assists deaf, hard of hearing, or otherwise hearing-impaired individuals in using telephones. Ex. 1001, 1:26–29. A conventional system uses a device that includes a keyboard, a display, and a specific type of modem, and is known as a telecommunication device for the deaf (TDD), a text telephone (TT), or a teletype (TTY). *Id.* at 1:37–42. When a hearing person who does not have access to a TDD wishes to communicate with a hearing-impaired person who uses a TDD, the parties may utilize a relay system, in which a human intermediary, known as a “call assistant,” communicates with the hearing user by voice and with the hearing-impaired user by using a TDD. *Id.* at 1:65–2:10. In a conventional relay system, the call assistant types, at a TDD keyboard, the words spoken by the hearing user and voices to the hearing user the words received on the TDD from the hearing-impaired user. *Id.* at 2:10–15.

The '578 patent relates to an improved method for providing a captioned telephone service using a relay. *Id.* at 2:39–56. Instead of typing the hearing user’s words, the call assistant re-voices those words into a microphone that transmits the voice of the call assistant to a computer with voice recognition software trained specifically to the voice of the call assistant. *Id.* at 6:10–16. Using the voice recognition software, the computer translates the words of the call assistant to digital text, which is sent to a display of the hearing-impaired user. *Id.* at 9:22–26.

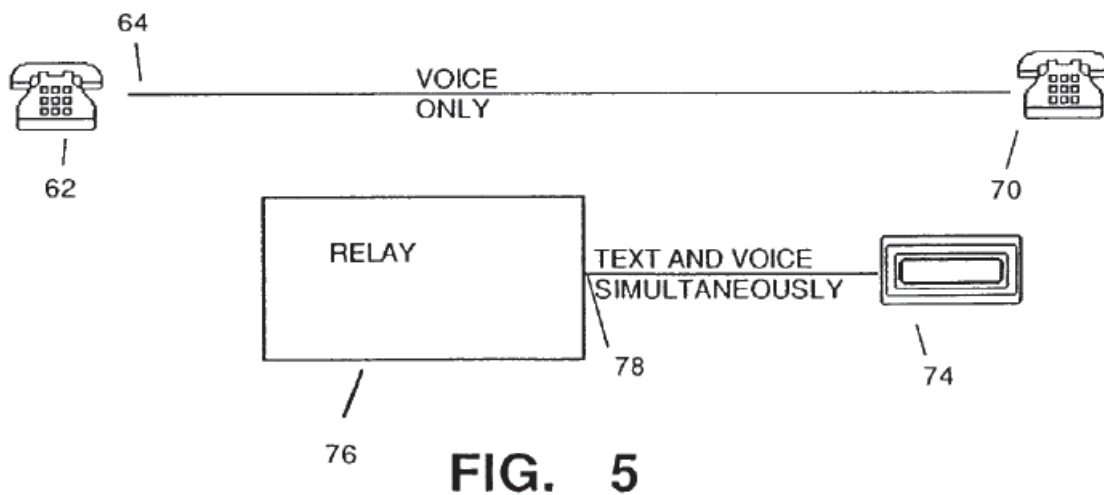
The '578 patent also describes a captioned telephone device at the site of the assisted user. *Id.* at 6:29–7:13. Figure 4, reproduced below, illustrates the setup of a telephone call involving captioned telephone device 72:

IPR2013-00544
 Patent 8,213,578 B2



As shown in Figure 4, a hearing user at telephone 62 communicates with relay 66 through telephone line 64. *Id.* at 6:31–32. The relay communicates both the voice of the hearing user and a transcription of the text of the conversation through telephone line 68 to an assisted user. *Id.* at 6:32–34. At the assisted user’s site are captioned telephone device 72, which includes a display for text, and conventional telephone 70. *Id.* at 6:34–38. The functions of captioned telephone device 72 and telephone 70 may be combined into a single device. *Id.* at 6:46–53.

Figure 5, reproduced below, illustrates an alternative, two-line embodiment described in the ’578 patent:



IPR2013-00544
Patent 8,213,578 B2

As shown in Figure 5, this embodiment utilizes voice-only telephone line 64 between telephone 62 of the hearing user and telephone 70 at the assisted user's location, and a separate connection—telephone line 78—carrying text and voice between relay 76 and captioned telephone device 74 at the assisted user's location. *Id.* at 6:54–63. The voice of the hearing user is received at telephone 70 and transferred to telephone line 78 for transmission to relay 76, which converts the spoken words to a text stream to be returned to the assisted user via telephone line 78. *Id.* at 6:63–67, 7:26–30.

D. Illustrative Claim

Of the challenged claims, claim 7 is the only independent claim. Claims 8 and 11 depend from claim 7, and claims 9 and 10 depend from claim 8. Claim 7 is illustrative:

7. A method of operating a captioned telephone service, the method comprising the steps of:

providing words spoken by a remote user to a relay;

at the relay, a call assistant listening to the words spoken by the remote user and re-voicing the words into a computer with voice recognition software trained to the voice of the call assistant to create a text stream of the words spoken by the remote user; and

presenting the text stream to an assisted user via a display.

Id. at 10:15–23.

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, we construe claim terms in an unexpired patent according to their broadest reasonable construction in light of the

IPR2013-00544
Patent 8,213,578 B2

specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, No. 2014-1301, slip op. at 11–19 (Fed. Cir. Feb. 4, 2015). Consistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning, as understood by a person of ordinary skill in the art, in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We construe the claim language below in accordance with these principles. No other terms require express construction.

1. “captioned telephone device”

Claim 8, which depends from independent claim 7, and from which claims 9 and 10 depend, recites “receiving the words spoken at a *captioned telephone device* and transmitting the words spoken from the captioned telephone device to the relay.” Ex. 1001, 10:26–28 (emphasis added). The ordinary meaning of “telephone” is “[a]n instrument that converts voice and other sound signals into a form that can be transmitted to remote locations and that receives and reconverts waves into sound signals.”⁶ In the context

⁶ THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1846 (3d ed. 1992); THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1779 (4th ed. 2006).

IPR2013-00544
Patent 8,213,578 B2

of voice communication, a “caption” is text that communicates dialogue.⁷ Thus, according to its ordinary meaning, a captioned telephone device is a device that transmits and receives voice signals and displays text.

The ’578 patent uses the term “captioned telephone device” consistent with this ordinary meaning. Claim 8 recites receiving spoken words at the captioned telephone device. The written description of the ’578 patent describes a captioned telephone device as a device that receives both voice signals and text information and displays the text information to an assisted user. *Id.* at 6:36–42 (“The captioned telephone device 72 is constructed to accomplish two objectives. One objective is to filter, or separate, the digital signals carrying the text information from the voice signal. The other objective is to take the digital signals and create a visual display of the text information for the assisted user.”); *see also id.* at Fig. 4 (showing a simultaneous text and voice connection between captioned telephone device 72 and relay 66). Note that a captioned telephone device need not output any audio signals to the assisted user. *See id.* at 6:46–48 (stating that a captioned telephone device may be a stand-alone device separate from a telephone at an assisted user’s location); *id.* at Figs. 4, 5 (illustrating captioned telephone device and telephone as two separate devices).

In light of the use of “captioned telephone device” in the ’578 patent and the ordinary meaning of the term, we construe “captioned telephone

⁷ THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 286 (3d ed. 1992) (defining “caption” in relevant part as “2. A subtitle in a motion picture.”); THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 278 (4th ed. 2006) (defining “caption” in relevant part as “2. A series of words . . . that communicate dialogue to the hearing-impaired or translate foreign dialogues.”).

IPR2013-00544
Patent 8,213,578 B2

device” as a device that transmits and receives voice signals, receives text information, and displays text to an assisted user.

2. “*A method of operating a captioned telephone service*”

The preamble of independent claim 7 recites “[a] method of operating a captioned telephone service.” *Id.* at 10:15. Petitioner argues that the preamble language should not be treated as a limitation that provides both the remote user’s voice and text to the assisted user’s station. Pet. 13–14; Reply 2. Patent Owner contends that “operating a captioned telephone service” is limiting, requiring transmission of both voice and text to the assisted user. PO Resp. 10–12. If claim 7 does not require providing the remote user’s voice to the assisted user’s station, the parties agree that claim 7 is entitled to the benefit of the filing date of U.S. Patent No. 5,909,482 (“the ’482 patent”), i.e., September 8, 1997.⁸ Pet. 13; PO Resp. 35.

“In general, a preamble limits the invention if it recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002). A preamble, however, “generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.” *Id.* at 809. One guidepost for determining the effect of a preamble on claim scope is whether the preamble language provides antecedent basis for any limitation in the body of the claim. *Id.* at 808.

⁸ The prior art status of certain references asserted against claim 7 depends on the effective filing date and on whether the claim requires providing the remote user’s voice to the assisted user’s station.

IPR2013-00544
Patent 8,213,578 B2

Moreover, a preamble describing the purpose or intended use of an invention generally does not limit the claim. *Id.* at 809.

As described in the '578 patent, providing captioned telephone service involves receiving the voice of the hearing user at a relay and transmitting a text stream and the voice of the hearing user over a telephone connection to the assisted user. Ex. 1001, 8:53–57. Patent Owner contends that given the emphasis in the '578 patent on providing both voice and text in a captioned telephone service, we should construe claim 7 to require transmitting both voice and text to the assisted user. PO Resp. 12. The phrase “operating a captioned telephone service,” however, appears only in the preamble of claim 7, and does not provide antecedent basis for any limitation in the body of the claim. As Petitioner notes, the phrase “captioned telephone service” is not recited again in the claim, *see* Pet. 13, nor is it recited in any of the claims that depend from claim 7.

The steps recited in the body of claim 7—providing words spoken by the remote user to a relay, a call assistant re-voicing the words to create a text stream, and presenting a text stream of the spoken words to the assisted user—define a complete method and do not rely on a recitation of a “captioned telephone service” in the preamble. Thus, “operating a captioned telephone service” is not an essential step that is necessary to give meaning to the claim and only states a purpose or intended use of the claimed method steps. Although claim 7 recites some steps associated with providing a captioned telephone service, notably missing from claim 7 is a limitation that requires providing the voice of the remote user to the assisted user. Because claim 7 does not recite that limitation explicitly, and because the phrase “operating a captioned telephone service” in the preamble is not an

IPR2013-00544
Patent 8,213,578 B2

essential step of the claim, we do not construe the claim to include the additional limitation of providing the voice of the remote user to the assisted user.

Reading the claim as a whole and applying the broadest reasonable construction of the claim language, we conclude that the “operating a captioned telephone service” language in the preamble of claim 7 is not a limitation requiring a remote user’s voice to be transmitted to, or received by, the assisted user. Accordingly, claim 7 has an effective filing date of September 8, 1997.

3. *“trained to the voice of the call assistant”*

Neither party expressly proposes a construction for “trained to the voice of the call assistant,” which appears in independent claim 7. *See* Pet. 16–17; PO Resp. 6–12; Reply 1–2. In their dispute over the teachings of the asserted prior art, however, the parties articulate different views as to how the term should be construed. Patent Owner construes “trained to the voice of the call assistant” to require training to recognize individual voices, PO Resp. 24, presumably trained to the voice of one, and only one, call assistant and to preclude training for a type of speech used by a group of people (such as a regional accent) that could apply to more than one call assistant. Patent Owner also seeks to construe “trained to the voice of the call assistant” as having a temporal constraint so as to preclude training at the time when the voice recognition computer software package is “designed in advance of implementation at the source code level.” *Id.* (emphasis omitted). According to Patent Owner, “trained to the voice of the call assistant” precludes software that is “built” to recognize the voice of a particular agent. *Id.* at 25. Petitioner disagrees. Reply 4–5.

IPR2013-00544
Patent 8,213,578 B2

The '578 patent does not set forth a special definition for “training.” In the “Brief Summary of the Invention,” however, the '578 patent refers to “a speech recognition computer program which has been trained to the voice *pattern* of the call assistant.” Ex. 1001, 2:44–46 (emphasis added). The '578 patent incorporates by reference the disclosure of the '482 patent regarding the use of voice recognition software in a re-voicing relay. *Id.* at 3:51–53. In that context, the '482 patent describes “the call assistant operat[ing] at a computer terminal which contains a copy of a voice recognition software package which is specifically trained to the voice of that *particular* call assistant.” Ex. 1002, 5:44–47 (emphasis added). Thus, the '578 patent contemplates software trained to “a voice *pattern* of the call assistant” as well as software “specifically trained to the voice of [a] *particular* call assistant.” Neither description of training, however, indicates when or how the training occurs. Patent Owner, relying on its declarant Mr. Paul W. Ludwick, asserts that a person of ordinary skill in the art would not have understood software that is “designed” in advance to recognize the voice of particular agents to be software that is “trained to recognize individual voices,” because such technology was not used in telecommunications relay service in 1994. PO Resp. 24 (citing Ex. 2010 ¶¶ 21–22). We note that technology available in 1994 has little probative value here because the earliest date of invention for claims of the '578 patent is 1997.

We give claim language its broadest reasonable construction in light of the specification of the patent in which it appears. Thus, we will not limit “trained to the voice of the call assistant” to require training to the voice of one particular call assistant, because the claim language encompasses the

IPR2013-00544
Patent 8,213,578 B2

invention as disclosed in the written description of the '578 patent— software trained to a voice *pattern* of a call assistant. Ex. 1001, 2:39–47 (“Summary of the Invention”). Nor will we limit “trained to the voice of the call assistant” to a particular time at which training must occur or to a particular manner of training that is not found in the claims or the written description of the '578 patent.

B. Principles of Law

To prevail in challenging Patent Owner’s claims, Petitioner must demonstrate by a preponderance of the evidence that the claims are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

A claim is anticipated if a single prior art reference either expressly or inherently discloses every limitation of the claim. *Orion IP, LLC v. Hyundai Motor Am.*, 605 F.3d 967, 975 (Fed. Cir. 2010). To anticipate, a reference also “must enable one of ordinary skill in the art to make the invention without undue experimentation.” *Impax Labs., Inc. v. Aventis Pharm., Inc.*, 545 F.3d 1312, 1314 (Fed. Cir. 2008). To determine whether “undue experimentation” is required, various factors are examined, including (1) the quantity of experimentation; (2) the amount of direction or guidance present; (3) the presence or absence of working examples; (4) the nature of the invention; (5) the state of the prior art; (6) the relative skill of those in the art; (7) the predictability or unpredictability of the art; and (8) the breadth of the claims. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988); *see also Impax Labs.*, 545 F.3d at 1314–15 (indicating the Wands factors should be applied to a determination whether a prior art reference is enabled).

IPR2013-00544
Patent 8,213,578 B2

A claim is unpatentable under 35 U.S.C. § 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 of the invention to a person having ordinary skill in the art. *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 ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). The level of ordinary skill in the art is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995).

C. Patent Owner's Motion to Exclude Testimony by Mr. Occhiogrosso

Patent Owner seeks to exclude the testimony of Mr. Benedict Occhiogrosso (Exs. 1030, 1057, 2006, 2007, and 2016) on the theory that he is not qualified as an expert under Federal Rule of Evidence 702 (“FRE 702”).^{9,10} PO Mot. to Exc. Occhiogrosso; PO Resp. 2–5. FRE 702 provides that a witness qualified as an expert by knowledge, skill,

⁹ Patent Owner also seeks to *exclude* Mr. Occhiogrosso's testimony under 37 C.F.R. § 42.65. PO Mot. to Exc. Occhiogrosso 1. Rule 42.65, however, addresses (a) the weight given to expert testimony that does not disclose underlying facts or data on which the opinion is based, (b) the showing required if a party seeks to rely on a technical test or data from such a test, and (c) the exclusion of expert testimony on United States patent law or patent examination practice. As such, Rule 42.65 does not apply to a determination whether to exclude Mr. Occhiogrosso's testimony.

¹⁰ With some enumerated exceptions, the Federal Rules of Evidence apply to an *inter partes* review. 37 C.F.R. § 42.62.

IPR2013-00544
Patent 8,213,578 B2

experience, training, or education may testify in the form of an opinion if (a) the expert's knowledge will help the trier of fact to understand the evidence or to determine a fact in issue, (b) the testimony is based upon sufficient facts or data, (c) the testimony is the product of reliable principles and methods, and (d) the witness has applied the principles and methods reliably to the facts of the case. Testimony on the issue of unpatentability proffered by a witness who is not "qualified in the pertinent art" generally is not admissible under FRE 702. *Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1363–64 (Fed. Cir. 2008). In determining who is qualified in the pertinent art under FRE 702, we need not find a complete overlap between the witness's technical qualifications and the problem confronting the inventor or the field of endeavor. *See SEB S.A. v. Montgomery Ward & Co., Inc.*, 594 F.3d 1360, 1372–73 (Fed. Cir. 2010) (upholding admission of the testimony of an expert who admittedly lacked expertise in the design of the patented invention, but had experience with materials selected for use in the invention); *Mytee Prods., Inc. v. Harris Research, Inc.*, 439 Fed. App'x 882, 886–87 (Fed. Cir. 2011) (non-precedential) (upholding admission of the testimony of an expert who "had experience relevant to the field of the invention," despite admission that he was not a person of ordinary skill in the art).

Patent Owner contends that, to qualify as an expert under FRE 702, Mr. Occhiogrosso must be a person of ordinary skill in the art, and that Mr. Occhiogrosso is not a person of ordinary skill in the art because he does not have "general knowledge and understanding of the telecommunications needs of the deaf and HOH [(hard of hearing)]" or "experience with the development of assistive telecommunications technology for such

IPR2013-00544
Patent 8,213,578 B2

individuals.” PO Mot. to Exc. Occhiogrosso 1–4; *see also id.* at 5–7 (discussing Mr. Occhiogrosso’s experience with respect to these areas). Petitioner responds that Patent Owner’s definition of the level of ordinary skill in the art conflates a requirement for skill in the relevant technical art (“telecommunications systems [having] voice-to-text transcription”) with skill in one particular commercial sector that applies that technical art (“telecommunications services *specifically* designed for the deaf or hard of hearing”). Pet. Opp. to Mots. to Exc. 1, 3–4.

Patent Owner’s arguments are unpersuasive at the outset because, to testify as an expert under FRE 702, a person need not be a person of ordinary skill in the art, but rather “qualified in the pertinent art.” *Sundance*, 550 F.3d at 1363–64; *see SEB*, 594 F.3d at 1372–73; *Mytee*, 439 Fed. App’x at 886–87. Patent Owner’s arguments are also unpersuasive because they attempt to constrict the “pertinent art,” i.e., the pertinent technology, to a particular subset of individuals who use the pertinent technology, rather than the pertinent technology itself. *See* Pet. Opp. to Mots. to Exc. 4–5 (arguing that the problems in the pertinent art are not “uniquely related” to the deaf and hard-of-hearing). Moreover, Patent Owner indicates elsewhere that the relevant field of art is telecommunication technologies. *See* PO Resp. 18 n.1 (Patent Owner indicating its declarant “Mr. Ludwick indisputably is [a person of ordinary skill in the art] in telecommunications technologies, which is the relevant field of art,” to opine on speech recognition software for use in telecommunication relay service settings). Petitioner similarly indicates the relevant field is telecommunication technologies. Pet. Opp. to Mots. to Exc. 6 (“Mr. Occhiogrosso’s qualifications should be analyzed with

IPR2013-00544
Patent 8,213,578 B2

respect to the pertinent art of telecommunication technologies in which an intermediary facilitates voice-to-text transcription.”).

We agree that the pertinent art is telecommunication technologies. The ’578 patent states that the “present invention relates to the general field of telephone communications.” Ex. 1001, 1:25–26. The ’578 patent focuses on a particular application of that technology: people who need assistance in using telecommunications devices. *Id.* at 1:25–2:34 (describing various prior art assistive technologies to help characterize the evolution of assistive technologies). The ’578 patent also summarizes the invention as the use of a speech recognition computer program trained to the voice of the call assistant to translate promptly the words spoken by an intermediary call assistant into a “high speed digital communication message [that] is then transmitted electronically promptly by telephone to a visual display accessible to the” hearing-assisted user. *Id.* at 2:47–50.

The qualifications of Mr. Occhiogrosso, as summarized in his curriculum vitae (Ex. 1019), qualify him to give expert testimony on the subject of telecommunication technologies. He possesses a Bachelor of Science in Electrical Engineering and a Master of Science in Electrical Engineering. Ex. 1019, 2. Mr. Occhiogrosso testifies that he has more than thirty years of experience in the field of telecommunications and information technology, and he has planned, designed, implemented, and managed large scale projects involving wired and wireless communication systems, including transmission of voice and data. Ex. 1030 ¶ 7; *see also* Ex. 1019, 2–6 (detailing Mr. Occhiogrosso’s enterprise consulting engagements, research and development, and wireless experience).

IPR2013-00544
Patent 8,213,578 B2

Moreover, to the extent Mr. Occhiogrosso is more familiar with general telecommunications technology and less familiar with voice-to-text or its application to the deaf or hearing-impaired, or to the extent that Mr. Occhiogrosso's testimony is inconsistent or unsupported, we weigh Mr. Occhiogrosso's testimony accordingly, taking into account the extent of his expertise in these areas. *See, e.g., Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (holding the Board has discretion to give more weight to one item of evidence over another "unless no reasonable trier of fact could have done so"); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) ("[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.").

Patent Owner also contends that Mr. Occhiogrosso's testimony fails to identify the level of skill in the art in his declaration (Ex. 1030), fails to give any consideration to what one of ordinary skill in the art would have known or not known, is unsupported and unreliable, and does not consider secondary considerations. PO Mot. to Exc. Occhiogrosso 8; PO Resp. 4–5; PO Reply to Opp. to Mots. to Exc. 3. Petitioner counters that Mr. Occhiogrosso "consistently applied his definition of a [person of ordinary skill in the art] throughout his testimony" and, in a supplemental declaration, "made explicit the level of ordinary skill he applied" in his first declaration. Pet. Opp. to Mots. to Exc. 11–12.

Patent Owner's argument goes more to the weight we should accord Mr. Occhiogrosso's testimony, rather than its admissibility. It is within our discretion to assign the appropriate weight to the testimony offered by Mr. Occhiogrosso. *See, e.g., Yorkey*, 601 F.3d at 1284. Moreover,

IPR2013-00544
Patent 8,213,578 B2

Mr. Occhiogrosso provided a supplemental declaration identifying the level of skill in the art and confirming his opinion presented in the earlier declaration in view of the level of skill in the art. *See* Ex. 1057 ¶¶ 12–17, 19. Mr. Occhiogrosso’s testimony also confirmed his legal understanding of anticipation and obviousness, including secondary considerations. *See id.* ¶¶ 20–26.

Under the totality of these circumstances, we decline to exclude the testimony of Mr. Occhiogrosso. Accordingly, Patent Owner’s Motion to Exclude Mr. Occhiogrosso’s testimony (Paper 41) is *denied*.

D. Asserted Ground of Anticipation by Ryan

Petitioner asserts that claim 7 of the ’578 patent is anticipated by Ryan. Pet. 31–32. Patent Owner challenges Petitioner’s assertion. PO Resp. 15–35.

1. Summary of Ryan

Ryan describes a relay interface system for communication between a standard telephone set used by a hearing user and a TDD used by a hearing-impaired person. Ex. 1004, Abstract, 1:6–10. Figure 1 of Ryan is set forth below:

IPR2013-00544
 Patent 8,213,578 B2

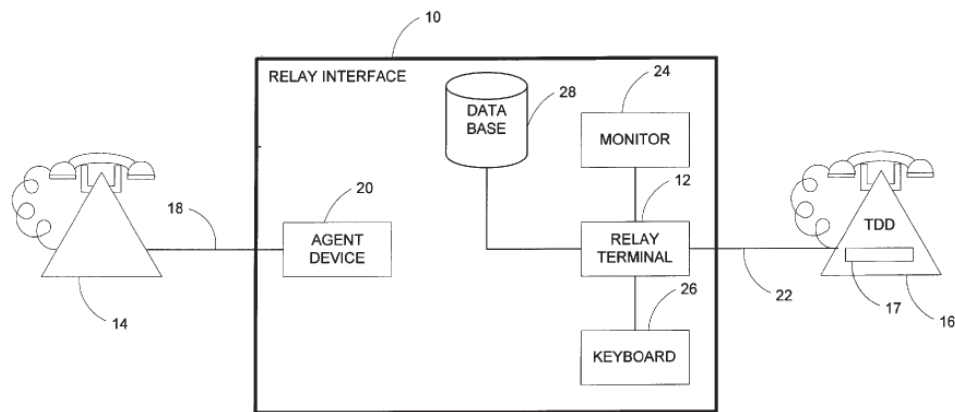


FIG. 1

As shown in Figure 1, Ryan's relay interface 10 includes operator/relay terminal 12 and connects standard telephone set 14 with TDD 16 having associated display 17. *Id.* at 3:43–48. Telecommunications link 18 connects telephone 14 with relay interface 10 through agent device 20, and telecommunications link 22 connects TDD 16 with relay interface 10 through relay terminal 12. *Id.* at 3:48–52. An operator or relay agent typically is responsible for manipulating relay terminal 12 using keyboard 26 to relay messages between telephone 14 and TDD 16. *Id.* at 4:19–21. Ryan indicates, however, that speech recognition software could be used to automate the relay function so that an operator or relay agent would not be required. *Id.* at 4:21–24. Ryan specifically describes using speech recognition software at agent device 20 to interpret a voice message from a caller at telephone 14 and convert the message from a voice format to a data format. *Id.* at 4:24–27. Ryan further indicates:

If the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and

IPR2013-00544
Patent 8,213,578 B2

repeat the voice message into a terminal adapted to convert the agent's voice message into a data message.

Id. at 4:33–38.

2. *Ryan is Prior Art*

Ryan issued on September 15, 1998, with a filing date of July 3, 1996, and is entitled to the benefit of the filing date of its parent application, October 18, 1994. Ex. 1004. As explained above, under our claim construction, the effective filing date of claim 7 is September 8, 1997, the filing date of the related '482 patent. *See supra* II.A.2. Thus, Petitioner asserts Ryan is prior art to claim 7 under 35 U.S.C. § 102(e). *See Reply 2*. Patent Owner contends that Ryan is not prior art under § 102(e) because it is not enabled. PO Resp. 15–23.

Under § 102(e), Ryan must be enabled prior to the date of invention of claim 7 of the '578 patent. *See* 35 U.S.C. § 102 (“A person shall be entitled to a patent unless— . . . (e) the invention was described in . . . (2) a patent granted on an application for patent . . . filed in the United States before the invention by the applicant for patent.”). The earliest possible date of invention of claim 7 is presumed to be September 8, 1997.

As an initial matter, we address Patent Owner's assertion of an earlier date of invention for claim 7—June 23, 1997. *See* PO Resp. 22–23. Patent Owner relies on a journal entry from August 5, 1997 indicating “the [call assistant] repeats what voice person says” and two declarations regarding the purchase of commercial software (i.e., IBM ViaVoice). Ex. 2011 ¶¶ 3–4; Ex. 2012 ¶¶ 7–10; Ex. 2013 ¶¶ 7–10. The declarations indicate that IBM ViaVoice was released in August 1997, and the application for the '482 patent was filed shortly thereafter on September 8, 1997. Ex. 2012 ¶¶ 7–10;

IPR2013-00544
Patent 8,213,578 B2

Ex. 2013 ¶¶ 7–10. Patent Owner’s earliest proffered evidence dates back only to August 5, 1997, not to June 23, 1997. Moreover, Patent Owner has not attempted to show diligence in reduction to practice.¹¹ Thus, we do not find that Patent Owner has established a date of invention for claim 7 prior to September 8, 1997.

We now turn to whether the portion of Ryan relied on by Petitioner as disclosing “a computer with voice recognition software trained to the voice of the call assistant to create a text stream of the words spoken by the remote user” was enabled at the relevant time. Initially, there is a presumption that a prior art reference is enabled. *See In re Antor Media*, 689 F.3d 1282, 1287–1288 (Fed. Cir. 2012); *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003). The parties agree that commercial voice recognition software available from Dragon Systems, called “Naturally Speaking” (and sometimes referred to as “Dragon Naturally Speaking”), enabled the use of voice recognition software by a call assistant to re-voice a remote user’s words to create a text stream. PO Resp. 22 (citing Exs. 2011, 2012, 2013); Reply 4. There is no dispute that Dragon Naturally Speaking was available to the public on June 23, 1997. PO Resp. 22 (citing Exs. 2011, 2012, 2013); Reply 3. Moreover, the ’482 patent, filed on September 8, 1997, and incorporated by reference into the ’578 patent, *see* Ex. 1001, 3:51–53, acknowledged Dragon Naturally Speaking was available commercially. Ex. 1002, 5:51–57 (stating that “a

¹¹ *See Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577 (Fed. Cir. 1996) (holding that the first to conceive “may date his patentable invention back to the time of its conception, if he connects the conception with its reduction to practice by reasonable diligence on his part, so that they are substantially one continuous act” (internal citation and quotations omitted)).

IPR2013-00544
Patent 8,213,578 B2

recently available commercial voice recognition package from Dragon Systems, known as ‘Naturally Speaking,’ is a voice recognition software that will . . . translate to digital text spoken words of a user at the normal speeds of human communication in conversation when operating on conventional modern personal computers”). Weighing the *Wands* factors, we determine that at least the state of the prior art (including commercial availability of Dragon Naturally Speaking), the breadth of the claim language (“a computer with voice recognition computer software trained to the voice of the call assistant to create a text stream of the words spoken by the remote user”), and the predictability of the telecommunications art support a conclusion that Ryan is enabled as of June 23, 1997. *See Wands*, 858 F.2d at 737.

Patent Owner argues that Ryan does not anticipate claim 7 under § 102(e) because Ryan’s disclosure of speech recognition software (Ex. 1004, 4:19–38) was not enabled in 1994, the earliest effective filing date claimed by Ryan. PO Resp. 15–21. We do not agree with Patent Owner that to anticipate under § 102(e), a reference must be enabled as of its earliest claimed priority date. First, “[e]nablement of an anticipatory reference may be demonstrated by a later reference.” *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1379 (Fed. Cir. 2001). An anticipatory reference under § 102(b) is enabled if it can be shown that the claimed subject matter was in possession of the public before the critical date of the challenged patent. *Id.* Based on well-established law that to anticipate under § 102(b) a reference must be enabled by the critical date, rather than the publication date of the reference asserted as prior art, we conclude that to anticipate under § 102(e), a reference must be enabled by the date of invention of the challenged claim. As determined previously,

IPR2013-00544
Patent 8,213,578 B2

Ryan is enabled by commercial voice recognition software available to the public on June 23, 1997, which precedes the earliest possible date of invention for claim 7 of the '578 patent. Thus, Ryan is prior art to claim 7. *See* 35 U.S.C. 102(e) (precluding patentability if the invention of the patent was described in “a patent granted on an application for patent . . . filed in the United States before the invention”).

Second, we are not persuaded by Patent Owner’s arguments citing cases concerning (i) the written description requirement of 35 U.S.C. § 112, *In re Wertheim*, 646 F.2d 527 (CCPA 1981), and (ii) the problem of “secret prior art,” *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 U.S. 390 (1926). Patent law now recognizes “secret prior art” in section 102(e), and the Federal Circuit has observed that “[e]ven the ‘secret prior art’ of § 102(e) is ultimately public in the form of an issued patent before it attains prior art status.” *OddzOn Products, Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1402 (Fed. Cir. 1997). Further, it is well-settled that the enablement requirement is a separate requirement from the written description requirement. *See, e.g., Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Moreover, “[t]he enablement requirement is often more indulgent than the written description requirement. The specification need not explicitly teach those in the art to make and use the invention; the requirement is satisfied if, given what they already know, the specification teaches those in the art enough that they can make and use the invention without ‘undue experimentation.’” *Amgen*, 314 F.3d at 1334.

Finally, we are not persuaded by Mr. Ludwick’s testimony addressing the inability of technology in 1994 to implement continuous speech recognition technology. PO Resp. 18 (citing Ex. 2010 ¶¶ 23–30). For the

IPR2013-00544
Patent 8,213,578 B2

reasons discussed, Ryan need not be enabled as of 1994 to qualify as prior art to claim 7 of the '578 patent. We have determined that Ryan was enabled as of June 1997 and, therefore, qualifies as prior art to claim 7.

3. Claim 7

To support its contention that Ryan anticipates claim 7, Petitioner provides analysis as to how Ryan discloses each claim limitation and relies on declaration testimony of Mr. Occhiogrosso. Pet. 31–32; Reply 4–6 (citing Ex. 1057). Patent Owner responds, relying on declaration testimony by Mr. Ludwick. PO Resp. 23–35 (citing Ex. 2010). Having considered the parties' contentions and supporting evidence, we find that Petitioner has demonstrated by a preponderance of the evidence that Ryan anticipates claim 7.

Ryan discloses the first and last steps of claim 7, “providing words spoken by a remote user to a relay,” and “presenting the text stream to an assisted user via a display.” Ex. 1004, 1:53–59, 2:52–54. Ryan also discloses a call assistant at the relay listening to the words spoken by the remote user. *Id.* at 4:34–36. The dispute between the parties is whether Ryan discloses the remaining limitation—“at the relay, a call assistant . . . re-voicing the words into a computer with voice recognition software trained to the voice of the call assistant to create a text stream of the words spoken by the remote user.”

Petitioner contends this limitation is disclosed by Ryan's relay interface system in which a relay agent is responsible for relaying messages between phone 14 and TDD 16. Pet. 32 (citing Ex. 1004, 4:19–38). Specifically, Petitioner relies on Ryan's description of “speech recognition software . . . employed at [relay agent] device 20 [and] specifically designed

IPR2013-00544
Patent 8,213,578 B2

to recognize the voice of particular relay agents” and Ryan’s indication that “the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message.” Pet. 32 (citing Ex. 1004, 4:24–38).

Patent Owner responds with several arguments, none of which we find persuasive. *See* PO Resp. 23–35. Undergirding some of these arguments is Patent Owner’s focus on the state of the art of voice recognition technology in 1994. *See id.* at 24 (“[S]peech recognition was not actually used at all in the [telecommunications relay service] field in 1994.”); *id.* at 34–35 (asserting that Ryan must be read narrowly in view of the state of the telecommunications relay art in 1994); Ex. 1020 ¶¶ 24–30 (Mr. Ludwick submitting that Ryan does not contain an enabling disclosure based on technology available in 1994). The state of the art of the relevant technology in 1994, however, has limited probative value. Of greater significance is the state of the art of the relevant technology in September 1997, the date of invention of the subject matter of claim 7. *See* 35 U.S.C. § 102(e). As noted previously, there is no dispute about the state of voice recognition technology as of June 23, 1997, when Dragon Naturally Speaking was released.

Patent Owner contends that Ryan does not disclose the recited “voice recognition software *trained* to the voice of the call assistant” because Ryan’s software is “designed” to recognize the voice of particular relay agents. PO Resp. 23–24. According to Patent Owner, software *designed* in advance of implementation at the source code level is not the same as *trained* software. *Id.* at 24. As discussed previously, *see supra* II.A.3, we

IPR2013-00544
Patent 8,213,578 B2

do not agree with Patent Owner that trained voice recognition software, as recited in claim 7, precludes software that is trained during the design phase, which Patent Owner contends is disclosed by Ryan. *See* PO Resp. 25.

Thus, we are not persuaded by Patent Owner's argument, which is premised on an incorrect claim construction. Moreover, Patent Owner relies on Mr. Ludwick's testimony, which we do not find persuasive because it is grounded in the state of the art in 1994, rather than at the time of invention in 1997. *See id.*

Next, relying on Mr. Ludwick's testimony, Patent Owner contends that Ryan does not disclose the recited "voice recognition software trained to the voice of the call assistant," because Ryan's "voice recognition software is written specifically to recognize the voices of a collection or group of people, rather than a particular, individual call assistant." PO Resp. 26 (citing Ex. 2010 ¶ 22). For the reasons discussed previously, we do not agree that the claim language is limited to voice recognition software trained to one, and only one, call assistant. *See supra* II.A.3. Thus, even if Ryan's software is trained to recognize the voices of a group of people rather than an individual call assistant, we are not persuaded by Patent Owner's argument, which is premised on an incorrect claim construction.

Patent Owner also contends that, at most, Ryan is ambiguous as to the disclosure of a call assistant re-voicing the words spoken by the remote user into a computer to create a text stream of those words, and so does not anticipate claim 7. PO Resp. 26–34. In particular, Patent Owner contends that Ryan discloses a relay agent using re-voicing as an error correction mechanism for individual, unrecognized letters of a word. *Id.* at 29–33; *see*

IPR2013-00544
Patent 8,213,578 B2

Ex. 1004, Abstract. We do not read Ryan's disclosure so narrowly. *See* Ex. 1004, 4:19–38.

Ryan's technology is intended to “overcome[] the problem associated with existing telecommunications relay services by providing a system and method for correcting mistakes before the message is displayed at the end user's TDD.” *Id.* at 2:35–38 (Summary of the Invention). Ryan describes ways to do so using speech recognition software. *Id.* at 4:19–38. One way is automating the relay function so as to eliminate the need for a human operator. *Id.* at 4:19–24. Ryan describes using speech recognition software to convert the voice message from a caller to text “while providing an error correction feature for words not recognized by the software.” *Id.* at 4:24–28. Ryan further describes the error correction feature as having two forms—phonetic spelling of the unrecognized word by the speech recognition software or prompting the caller to spell the unrecognized word. *Id.* at 4:29–33.

Ryan describes another way to improve the accuracy of a relay system before the text is displayed at the TDD—if the speech recognition software is designed specifically to recognize the voice of particular relay agents, a relay agent “listen[s] to the caller and repeat[s] the voice message into a terminal adapted to convert the agent's voice message into a data message.” *Id.* at 4:33–38. In contrast to Ryan's description of the error correction by the *caller* spelling letters of an unrecognized word, here Ryan unambiguously describes a call agent repeating the voice message of the caller and using speech recognition software designed specifically to recognize the voice of the relay agent to convert the agent's voice message into a data message.

IPR2013-00544
Patent 8,213,578 B2

Finally, Patent Owner contends that Ryan does not disclose “voice recognition software trained to the voice of the call assistant” running on the call assistant’s workstation, rather than running remotely or virtually from a server or other computer. PO Resp. 34. Ryan indicates “speech recognition software could be employed at device 20,” which is included in Ryan’s telecommunications relay interface system 10 used by the relay agent. Ex. 1004, 3:43–45; *see also id.* at Fig. 1 (showing agent device 20 within telecommunications relay interface system 10). Ryan goes on to state “[i]f the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent’s voice message into a data message.” *Id.* at 4:33–38. We do not agree with Patent Owner’s assertion that, because that sentence in Ryan refers to “a terminal” (rather than identifying a component shown in Figure 1), Ryan’s voice recognition software could be located somewhere other than on the agent’s workstation.

For these reasons, we find Ryan discloses “at the relay, a call assistant . . . re-voicing the words into a computer with voice recognition software trained to the voice of the call assistant to create a text stream of the words spoken by the remote user,” as recited in claim 7. Accordingly, we find that Petitioner has demonstrated by a preponderance of the evidence that Ryan anticipates claim 7.

E. Asserted Ground of Obviousness over Wycherley and Yamamoto

Petitioner asserts that claim 7 of the ’578 patent is unpatentable under 35 U.S.C. § 103 as obvious over Wycherley and Yamamoto. Pet. 33–37.

IPR2013-00544
Patent 8,213,578 B2

Petitioner asserts that both Wycherley and Yamamoto qualify as prior art to claim 7 under 35 U.S.C. § 102(b). Pet. 18, 21. Patent Owner challenges Petitioner's contentions regarding obviousness based on Wycherley and Yamamoto, including whether Yamamoto is prior art. PO Resp. 48–59.

1. Yamamoto is a Printed Publication under 35 U.S.C. § 102(b)

Petitioner asserts that Yamamoto was published in March 1996 and, therefore, qualifies under 35 U.S.C. § 102(b) as prior art to claim 7 of the '578 patent. Pet. 21. Patent Owner contends that Yamamoto is not prior art because Petitioner has not provided sufficient evidence to show that Yamamoto was a publicly accessible printed publication more than one year prior to September 8, 1997, the effective filing date of claim 7.¹² Paper 42 (PO Mot. to Exc. Yamamoto); Paper 63.

a. Evidence of Public Accessibility

We begin with some procedural background to provide context for the evidence relied on by Petitioner. In April 2014, approximately one month after our institution decision, Petitioner served on Patent Owner supplemental evidence in response to Patent Owner's objections regarding the publication date of Yamamoto and, hence, its prior art status. *See* Paper 18, 4; *see also* Paper 59, 3–4 (detailing procedural history). On May 30, 2014, Patent Owner filed its Patent Owner Response, which did not challenge the sufficiency of Petitioner's evidence demonstrating the public accessibility of Yamamoto, or otherwise contend that Yamamoto is not prior art to the '578 patent under 35 U.S.C. § 102(b). Paper 27; *see* Paper 59, 4. Rather, Patent Owner waited an additional three months, until August 26,

¹² *See supra* II.A.2.

IPR2013-00544
Patent 8,213,578 B2

2014, in its Motion to Exclude Evidence, to challenge the sufficiency of Petitioner's evidence regarding the public accessibility of Yamamoto. Paper 42; *see* Paper 59, 4.

Petitioner then moved to submit supplemental information under 37 C.F.R. § 123(b), including a transcript of a videotaped interview with Mr. Seiichi Yamamoto, the first named author of the Yamamoto reference. Paper 48; Ex. 2017 (Videoconference Deposition of Seiichi Yamamoto, Aug. 20, 2014) ("Yamamoto transcript"). We granted the motion, and permitted the parties to file supplemental briefing regarding the public accessibility of Yamamoto, including the admissibility of the Yamamoto transcript. *See* Paper 59, 10–11; Paper 61 (Petitioner's Additional Briefing); Paper 63 (Patent Owner's Response to Additional Briefing); Paper 64 (Petitioner's Reply to Patent Owner's Response to Additional Briefing).

We now consider the evidence regarding the public accessibility of Yamamoto. The first page of Yamamoto indicates it was a paper presented at the Proceedings of the Acoustical Society of Japan Spring 1996 Research Presentation Conference in March 1996. Ex. 1007. In support of its contention that Yamamoto was publicly accessible in March 1996, Petitioner relies primarily on the transcript of the interview with Mr. Yamamoto, in which the parties questioned Mr. Yamamoto regarding the presentation and distribution of the paper at the conference. *See* Ex. 2017. This interview was conducted in connection with the related district court proceeding, *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.). *See* Ex. 2017, 1.

Pursuant to stipulation of the parties, both parties had the opportunity to ask Mr. Yamamoto questions at the interview, an interpreter was present

IPR2013-00544
Patent 8,213,578 B2

to translate Mr. Yamamoto's testimony, and a court reporter made a stenographic record of the English portion of the interview. *See* Ex. 1067 (Stipulation Regarding Seiichi Yamamoto) ¶¶ 1, 3. The parties also stipulated that the stenographic record of the interview would be treated as sworn deposition testimony in the district court proceeding and, "[w]ith respect to other proceedings, the stenographic record will be treated as a sworn deposition taken in Western District of Wisconsin Case Nos. 13-cv-346 and 14-cv-66 at which both parties appeared and had the opportunity to question the witness." *Id.* ¶ 5.

Patent Owner contends the Yamamoto transcript should be excluded as evidence because the parties did not agree it could be used in this proceeding. Paper 63, 5–6. To the contrary, the parties' stipulation provides that "[t]he use and admissibility of the stenographic record in any other proceedings will be governed by the rules in effect with respect to such other proceeding." Ex. 1067 ¶ 5. Thus, the parties agreed that the Yamamoto transcript may be used in this *inter partes* review to the extent permitted by our rules.

Patent Owner argues that Board rules require exclusion of the Yamamoto transcript because Mr. Yamamoto was not sworn and did not sign the transcript, and because Petitioner failed to provide advance notice to the Board of its intent to take a foreign language deposition. Paper 63, 6 (citing 37 C.F.R. § 42.53(a), (e), (f)). The Yamamoto transcript, however, does not run afoul of the rules cited by Patent Owner because Petitioner seeks to admit the transcript as a deposition taken in the district court proceeding, not as deposition testimony taken in this *inter partes* review proceeding. *See* Paper 64, 1. Moreover, the parties stipulated that the

IPR2013-00544
Patent 8,213,578 B2

Yamamoto transcript would be treated as sworn deposition testimony taken in the district court. Ex. 1067 ¶ 5.

Patent Owner further contends that the Yamamoto transcript constitutes inadmissible hearsay under the Federal Rules of Evidence, which apply to this proceeding. Paper 63, 7 (citing 37 C.F.R. § 42.62(a); Fed. R. Evid. 801, 802). Petitioner responds that the Yamamoto transcript is admissible as an exception to the rule against hearsay. Paper 64, 1–3. We agree with Petitioner.

First, Rule 804(b)(1) allows the use of former testimony of an unavailable witness if the testimony “(A) was given as a witness at a trial, hearing, or lawful deposition, whether given during the current proceeding or a different one; and (B) is now offered against a party who had . . . an opportunity and similar motive to develop it by direct, cross-, or redirect examination.” Fed. R. Evid. 804(b)(1). By stipulation of the parties, the interview of Mr. Yamamoto was treated as a lawful deposition in the district court proceeding. Ex. 1067 ¶ 5. Also, both parties had the opportunity to develop Mr. Yamamoto’s testimony and had the same motive as in this proceeding—to determine whether Yamamoto was publicly accessible. *See* Ex. 1067 ¶ 1; Ex. 2017. As we previously determined, Petitioner reasonably concluded, based on Patent Owner’s Response (Paper 27) filed on May 30, 2014, that Patent Owner no longer was challenging the prior art status of the Yamamoto reference. Paper 59, 7. Petitioner only became aware of Patent Owner’s continued challenge when Patent Owner improperly challenged the sufficiency of the Yamamoto reference in its Motion to Exclude filed on August 26, 2014, well after the time for taking testimony in this proceeding. *Id.* At that point, Petitioner had no reasonable means for obtaining

IPR2013-00544
Patent 8,213,578 B2

Mr. Yamamoto's testimony for this proceeding. *See* Paper 48, 3 (Petitioner's Motion for Leave to File Supplemental Evidence Regarding Yamamoto). We determine, therefore, that Mr. Yamamoto was unavailable as a witness, *see* Fed. R. Evid. 804(a), and the Yamamoto transcript is admissible under Rule 804(b)(1).¹³

In addition, the Yamamoto transcript is admissible under Rule 807. First, Mr. Yamamoto's videotaped interview, which was stipulated to be sworn deposition testimony in the district court proceeding, and in which Mr. Yamamoto was subject to cross-examination, "has equivalent circumstantial guarantees of trustworthiness." Fed. R. Evid. 807(a)(1). Also, Petitioner offers the Yamamoto transcript as evidence of a material fact—the public availability of a prior art reference—and it is more probative on that point than any other evidence Petitioner can obtain through reasonable efforts because Mr. Yamamoto co-authored the Yamamoto reference and presented it at a conference of the Acoustical Society of Japan. *See* Fed. R. Evid. 807(a)(2), (3). Finally, admitting the Yamamoto transcript is in the interests of justice, as it provides as complete a record as possible regarding the public accessibility of the Yamamoto reference. *See* Fed. R. Evid. 807(a)(4); *see also* Paper 59, 8 (determining that submission of the Yamamoto transcript is in the interests of justice).

Finally, we are not persuaded by Patent Owner's argument that the Yamamoto transcript should be excluded under Federal Rules of Evidence 602, 603, and 604. Mr. Yamamoto's testimony indicates he was present at

¹³ We note that the parties stipulated, for purposes of the district court proceeding, that Mr. Yamamoto's testimony would be deemed former testimony under Rule 804(b), and Mr. Yamamoto was deemed unavailable under Rule 804(a). Ex. 1067 ¶ 6.

IPR2013-00544
Patent 8,213,578 B2

the conference at which his paper was presented and had personal knowledge of the distribution of the paper, as required by Rule 602. *See* Ex. 2017. As for Rules 603 and 604, requiring an oath or affirmation by a witness and interpreter, respectively, they do not require exclusion of the Yamamoto transcript because the parties stipulated that it would be treated as sworn deposition testimony. *See* Ex. 1067 ¶ 5.

b. Yamamoto Was Publicly Accessible in March 1996

Under 35 U.S.C. § 102(b), a person is not entitled to a patent if “the invention was . . . described in a printed publication . . . more than one year prior to the date of the application for patent.” “The statutory phrase ‘printed publication’ has been interpreted to mean that before the critical date the reference must have been sufficiently accessible to the public interested in the art; dissemination and public accessibility are the keys to the legal determination whether a prior art reference was ‘published.’” *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1568 (Fed. Cir. 1988)). The determination of whether a reference qualifies as a printed publication “involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public.” *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004).

In the present case, based on the circumstances surrounding the presentation and dissemination of the Yamamoto reference, we conclude that Yamamoto was publicly accessible in March 1996, more than one year before September 8, 1997, the effective filing date of claim 7 of the ’578 patent. As indicated on the first page of the reference, the Yamamoto reference was presented at the March 1996 Research Presentation

IPR2013-00544
Patent 8,213,578 B2

Conference of the Acoustical Society of Japan. Ex. 1007, 1.

Mr. Yamamoto's testimony, which we find credible, confirms that he gave an oral presentation of the paper at Special Session A of the conference on March 26, 1996. Ex. 2017, 6:8–23, 13:23–14:3. According to Mr. Yamamoto's estimate, 100 to 150 people attended his presentation of the paper. *Id.* at 13:23–14:3.

The Acoustical Society created a book containing all the papers presented at the conference, including the Yamamoto paper. *Id.* at 8:12–23, 12:24–13:10, 15:18–19. Conference attendees were able to purchase a copy of the book at the time of registration. *Id.* at 13:8–10, 14:17–21. Beginning on the first day of the conference, copies of the book were “piled up on the registration desk for purchase, for anyone who wished to purchase.” *Id.* at 15:11–17. According to Mr. Yamamoto, many of his friends who attended the conference purchased a copy of the book. *Id.* at 9:18–10:2, 15:11–17. He also made the paper available to anyone who asked for a copy, and he recalls providing copies to subordinates of Mr. Fujioka, his co-author, though he does not recall the precise timing. *Id.* at 14:8–13, 16:6–14.

The facts of this case are similar to those in *MIT v. AB Fortia*, 774 F.2d 1104 (Fed. Cir. 1985). In that case, our reviewing court concluded that a paper that had been presented orally at a conference attended by 50 to 500 interested persons of ordinary skill in the art, and had been disseminated to at least six persons, was a printed publication for prior art purposes. *Id.* at 1109. Similarly, Mr. Yamamoto orally presented his paper to 100 to 150 persons of ordinary skill in the art, and many conference attendees received a copy of the book containing the paper. Ex. 2017, 9:18–10:2, 13:23–14:3, 15:11–17.

IPR2013-00544
Patent 8,213,578 B2

Patent Owner argues that without a detailed analysis of factors such as the length of time the paper was displayed at a conference, the expertise of its target audience, the expectations regarding whether the material would be copied, and the ease with which it could be copied, Yamamoto cannot be considered prior art. Paper 63, 7–8 (citing *Klopfenstein*, 380 F.3d at 1350). Those factors, however, are relevant when determining the public accessibility of a reference that was displayed at a conference without distribution to the public. *Klopfenstein*, 380 F.3d at 1350. In contrast, the Yamamoto reference was included in a book of papers presented at the Acoustical Society conference that was available for purchase by all conference attendees, and actually was purchased by many attendees. Ex. 2017, 9:18–10:2, 12:24–13:10, 15:11–19.

Patent Owner also contends that the distribution of the Yamamoto reference does not show it was publicly accessible because there is no evidence that it occurred among people in the interested public. Paper 63, 8–9. Although Mr. Yamamoto could not recall if the Acoustical Society of Japan’s March 1996 conference was open to non-Society members, Ex. 2017, 7:23–8:11, attendance by at least 100 to 150 Society members is sufficient to show the Yamamoto reference was available to persons interested in the subject matter of the paper, voice recognition applications in communication systems. This case is distinguishable from those cited by Patent Owner, which involve papers posted online for a small, closed group of specialists. See Paper 63, 8–9 (citing *SRI Int’l Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1197 (Fed. Cir. 2008); *Samsung Elecs. Co. v. Rembrandt Wireless Techs., LP*, 2014 WL 4537478, at *5, IPR2014-00515 (PTAB Sept. 9, 2014)).

IPR2013-00544
Patent 8,213,578 B2

For these reasons, based on the facts and circumstances regarding the presentation and dissemination of the Yamamoto reference, we determine that Yamamoto was publicly accessible in March 1996. Yamamoto, therefore, qualifies as a printed publication that is available as prior art to claim 7 of the '578 patent.¹⁴

2. *Summary of Wycherley*

Wycherley describes a system for a relay service for establishing a telephone call between a hearing person and a hearing-impaired person. Ex. 1005, 1:6–10. To reduce the amount of time a service attendant is involved in such a telephone call, Wycherley's relay system automates some features by using text-to-speech processing and, on a limited basis, automatic speech recognition. *Id.* at Abstract. Wycherley's relay system includes Automatic Speech Recognition (ASR) units, which may be commercially available software and may be trained using a voice template, enabling the voice processor to recognize words uttered by the speaker in a call. *Id.* at 3:59–60, 4:26–28, 4:35–56. In the event of excessive translation errors by the automated translation of the hearing person's words, Wycherley's relay system transfers the telephone call to a call attendant, who "may request that the speaker repeat the substance of his or her response" and type the words spoken by the hearing person for transmission to the hearing impaired person's TDD terminal. *Id.* at 5:42–47; *see also id.* at 5:1–53.

¹⁴ Because we conclude that Yamamoto was publicly accessible in March 1996, we need not address Petitioner's argument and evidence regarding public accessibility in May 1996, when Petitioner asserts that the book containing Mr. Yamamoto's paper was received by the Japan Science and Technology Agency. *See* Paper 61, 6.

IPR2013-00544
Patent 8,213,578 B2

3. *Summary of Yamamoto*

Yamamoto describes tests of voice recognition systems. Ex. 1007, 34–36. Along with other examples, Yamamoto describes a test with an operator assistance system for international calling, noting a preliminary step in an operator assistance system for international calling is “voice recognition of an operator repeating the question from the [international calling] user” to increase efficiency. *Id.* at 35. Yamamoto also describes testing of “a continuous speech recognition system driven by a context-free grammar.” *Id.* at 34.

4. *Claim 7*

To support its contention that claim 7 would have been obvious over Wycherley and Yamamoto, Petitioner provides analysis regarding the teachings of the references and relies on declaration testimony of Mr. Occhiogrosso. Pet. 33–37 (citing Ex. 1030¹⁵). Patent Owner responds, relying on declaration testimony of Mr. Ludwick. PO Resp. 48–59 (citing Ex. 2010). Having considered the parties’ contentions and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 7 is unpatentable for obviousness over Wycherley and Yamamoto.

Wycherley teaches the first and last steps of claim 7, “providing words spoken by a remote user to a relay,” and “presenting the text stream to

¹⁵ As authorized in our order dated April 9, 2014 (Paper 18), Petitioner filed Exhibit 1030, the correct version of Mr. Occhiogrosso’s Declaration for this proceeding, as a replacement for Exhibit 1018, an incorrect version of Mr. Occhiogrosso’s Declaration originally filed with, and cited in, the Petition. *See* Ex. 1030, 1. We construe all citations to Exhibit 1018 in the Petition as citations to Exhibit 1030.

IPR2013-00544
Patent 8,213,578 B2

an assisted user via a display.” Ex. 1005, 1:13–20, 1:27–37. Wycherley also teaches a call assistant at the relay listening to the words spoken by the remote user. *Id.* at 1:34–37. The dispute between the parties is whether the combination of Wycherley and Yamamoto teaches or suggests the remaining limitation—“at the relay, a call assistant . . . re-voicing the words into a computer with voice recognition software trained to the voice of the call assistant to create a text stream of the words spoken by the remote user.”

As Petitioner states, Wycherley’s relay service uses “caller-specific templates to implement speaker-dependent voice recognition directly on the voice of the unimpaired caller.” Pet. 33 (citing Ex. 1005, 3:43–4:56). Thus, Wycherley teaches using voice recognition software trained to the voice of *the remote user* (rather than the voice of the call assistant, as recited in claim 7) to create a text stream of the words spoken by the remote user, as recited in claim 7. Petitioner also relies on Yamamoto’s description of a call assistance system that uses voice recognition of an operator repeating a question from a caller as teaching or suggesting a computer with voice recognition software trained to the voice of the call assistant. *Id.* (citing Ex. 1007, 35). Petitioner further notes that both Wycherley and Yamamoto “involve the use of voice recognition to increase the efficiency of operator assisted telephone services.” Pet. 34. Accordingly, relying on Mr. Occhiogrosso’s testimony for support, Petitioner concludes “it would have been obvious to incorporate *Yamamoto*’s intermediate re-voicing solution into *Wycherley* during situations where . . . full automation was not practical.” *Id.* (citing Ex. 1030 ¶ 52). For example, Petitioner explains, if a remote user in Wycherley’s system had not created a voice template and a call was transferred to a call attendant, incorporating re-voicing using voice

IPR2013-00544
Patent 8,213,578 B2

recognition trained to the call attendant's voice would have allowed the attendant to increase efficiency and make faster speech-to-text translations. *Id.* (citing Ex. 1030 ¶ 52). We credit Mr. Occhiogrosso's testimony and, thus, are persuaded that the combination of Wycherley's relay service, which uses automatic speech recognition on a remote user's voice, with Yamamoto's call assistance system, in which an operator repeats a caller's question into a voice recognition unit, would have taught or suggested to a person of ordinary skill in the art the re-voicing limitation of claim 7.

In addition, Petitioner has articulated sufficient reasoning with some rational underpinning to support the legal conclusion that the subject matter of claim 7 would have been obvious to one of ordinary skill in the art in view of the teachings of Wycherley and Yamamoto as combined in the manner proposed by Petitioner. *See KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). As noted by Petitioner, both references disclose using voice recognition systems to increase the efficiency of operator-assisted telephone services. Pet. 34; *see* Ex. 1005, 3:43–57; Ex. 1007, 35; Ex. 1030 ¶ 52. We agree that, at the time of the invention in 1997, particularly in view of the commercial availability of Dragon Naturally Speaking, it would have been obvious to one skilled in the art to mix and match the teachings of voice recognition systems used in operator-assisted telephone services as a whole to arrive at the claimed invention, because the method of claim 7 predictably uses known elements according to their established functions. *See KSR*, 550 U.S. at 417.

Patent Owner presents several arguments, none of which we find persuasive. *See* PO Resp. 48–57. First, Patent Owner contends that neither Wycherley nor Yamamoto teaches re-voicing using trained voice

IPR2013-00544
Patent 8,213,578 B2

recognition software. *Id.* at 48–51. Specifically, Patent Owner contends that Wycherley’s system uses voice recognition software trained to the voice of the remote caller rather than trained to the call assistant’s voice, and Yamamoto does not describe using voice recognition trained to the voice of the operator. *Id.* at 49. Further, Patent Owner contends that Yamamoto does not disclose the call assistant re-voicing the words spoken by the remote user because the operator in Yamamoto rephrases the words spoken by the caller or repeats only key words because the system has a limited vocabulary. *Id.* at 51–52.

Patent Owner’s arguments regarding the teachings of Wycherley and Yamamoto are directed to whether either reference individually teaches a call assistant re-voicing the words into a computer with voice recognition software trained to the voice of the call assistant, as recited in claim 7. The pertinent question, however, is whether the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art in view of the combined teachings of the references. 35 U.S.C. § 103(a); *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981). By unduly focusing on the teachings of the references in isolation, Patent Owner fails to address what the combination of those teachings would have suggested to a person of ordinary skill in the art at the time of invention of claim 7 of the ’578 patent.

We also are unpersuaded by Patent Owner’s arguments that a person of ordinary skill in the art would not have considered Wycherley. *See PO Resp.* 53–55. First, Patent Owner relies on Mr. Ludwick’s testimony regarding the state of the art in 1990, which has little probative value because obviousness is determined as of the time of invention, i.e., 1997. *See id.* at 53 (citing Ex. 2010 ¶¶ 56–57). Second, Patent Owner contends

IPR2013-00544
Patent 8,213,578 B2

that a person of ordinary skill in the art would have known that some features of a commercial implementation of Wycherley's relay were "disliked by customers," but does not identify particular aspects that are less desirable. *Id.* at 54. Third, Patent Owner argues that Wycherley's focus on creating a more cost-effective relay by reducing the call assistant's involvement teaches away from a re-voicing relay design. *Id.* This argument is unpersuasive because Patent Owner does not identify where Wycherley criticizes, discredits, or otherwise discourages re-voicing using voice recognition software trained to the voice of a call assistant. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004).

Patent Owner further submits that modifying Wycherley so that the relay agent repeats the remote user's words would render Wycherley unsatisfactory for its intended purpose of providing "a more cost effective relay service by reducing or eliminating the need for the relay agent." PO Resp. 55–56. We disagree, because we credit Mr. Occhiogrosso's testimony that providing Wycherley's call assistants with trained voice recognition software would increase their efficiency, and thus help achieve Wycherley's goal of providing a more cost-effective relay service. *See Ex. 1030 ¶ 52.*

Finally, Patent Owner contends that Yamamoto teaches away from the claimed invention because Yamamoto states that "continuous speech and spontaneous speech recognition [was still] not commercially viable." PO Resp. at 57 (citing Ex. 1007, 33; Ex. 2010 ¶ 60). We do not find Patent Owner's argument to be persuasive. First, we do not agree that Yamamoto provides that "recognition of continuous speech and spontaneous speech recognition is not yet commercially viable" in all contexts. Rather, Yamamoto teaches that particular techniques, such as word spotting, are

IPR2013-00544
Patent 8,213,578 B2

useful in contexts in which “recognition of continuous speech and spontaneous speech recognition is not yet commercially viable.” Ex. 1007, 33. Yamamoto, however, also indicates that “[v]oice-recognition systems [and] voice recognition software . . . have arrived at a usable state,” and “a variety of voice recognition systems in communication networks are also becoming commercially available.” *Id.* Thus, Yamamoto does not criticize, discredit, or otherwise discourage using voice recognition trained to the voice of a call assistant at a relay.

5. *Secondary Considerations*

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *Graham*, 383 U.S. at 17–18. Notwithstanding what the teachings of the prior art would have suggested to one with ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one with ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the following: long-felt but unsolved need, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17; *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007).

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011). Thus, to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *GPAC*, 57 F.3d at 1580. “Nexus” is a legally and factually

IPR2013-00544
Patent 8,213,578 B2

sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the Patent Owner. *Id.*; *Paulsen*, 30 F.3d at 1482.

Patent Owner alleges “substantial praise for the inventions claimed in [Patent Owner’s] patents, including the ’578 Patent, the long-felt but unresolved need of the deaf and hard of hearing community, the commercial success of the products and services embodying the invention, and the failure of others to provide a relay service or other solution that provided the benefits of the claimed inventions.” PO Resp. 58–59. For support, Patent Owner proffers declarations by Ms. Brenda Battat (Ex. 2004) and Ms. Constance Phelps (Ex. 2005) describing general innovations of Patent Owner’s CapTel Service and its CapTel phone and their benefits to the deaf and hard of hearing community. PO Resp. 58–59. In an attempt to establish the requisite nexus, Patent Owner relies on a declaration of Mr. Ludwick (Ex. 2002) asserting that his expert declaration “explain[s], on a feature by feature basis, the nexus between those secondary considerations and the claimed design” and “illustrates, in chart form, that the CapTel system and various models of CapTel phones embody the claims of the present invention.” PO Resp. 59.

Patent Owner’s Response contains no substantive arguments. *Id.* at 58–59. Instead, Patent Owner merely lists various common forms of secondary considerations evidence, without exposition. This does not provide sufficient analysis for us to determine whether Patent Owner has provided adequate evidence of secondary considerations and a nexus

IPR2013-00544
Patent 8,213,578 B2

between any such evidence and the merits of the claimed invention. Thus, Patent Owner's broad contentions regarding secondary considerations in its Patent Owner Response do not demonstrate nonobviousness.

Moreover, Patent Owner's declarations fail to establish a nexus between the merits of the claimed invention and the evidence of secondary considerations. To show a nexus, Patent Owner relies on Mr. Ludwick's declaration, which describes his visit to CapTel, Inc.'s relay center in Madison, Wisconsin. Ex. 2002 ¶ 47. Mr. Ludwick's chart presents his conclusions based on personal observation that the CapTel Service meets each claim limitation of the '578 patent. Ex. 2002 ¶ 48 (pp. 31–32). For example, regarding “at the relay, a call assistant listening to the words spoken by the remote user and re-voicing the words into a computer with voice recognition software trained to the voice of the call assistant to create a text stream of the words spoken by the remote user,” recited in claim 7, Mr. Ludwick asserts:

I personally observed that the CapTel Service meets this claim element. I further confirmed this from my own knowledge of CapTel Service. This step of the CapTel Service relay is performed when the service is used with each of the CapTel Phones and has always been included as part of the CapTel Service.

Ex. 2002 ¶ 48 (p. 31).

Because Mr. Ludwick's conclusions are based on personal observations, without sufficient supporting facts or data, his testimony has little probative value. *See Am. Acad. of Sci.*, 367 F.3d at 1368 (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the

IPR2013-00544
Patent 8,213,578 B2

declarations.”); *see also* Fed. R. Evid. 702 (providing one may testify in the form of an opinion if the testimony is based on sufficient facts or data). As such, Mr. Ludwick’s conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention, and so do not establish the requisite nexus between the merits of the claimed invention and the evidence of secondary considerations.

Accordingly, Patent Owner fails to provide sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner’s evidence of obviousness against Patent Owner’s asserted objective evidence of nonobviousness, we determine that a preponderance of the evidence supports Petitioner’s position that claim 7 would have been obvious over Wycherley and Yamamoto.

F. Asserted Ground of Obviousness over Ryan and McLaughlin

Petitioner contends that claims 7–11 are unpatentable under 35 U.S.C. § 103(a) as obvious over Ryan and McLaughlin, relying on declaration testimony of Mr. Occhiogrosso. Pet. 43–51 (citing Ex. 1030). Patent Owner responds, relying on declaration testimony of Mr. Ludwick. PO Resp. 35–48 (citing Ex. 2010). Having considered the parties’ contentions and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 8–11, but not claim 7, are unpatentable for obviousness over Ryan and McLaughlin.

1. Summary of McLaughlin

McLaughlin describes a simultaneous voice and data (SVD) modem used in connection with a relay service in which an operator mediates

IPR2013-00544
Patent 8,213,578 B2

communications between a hearing person and a hearing-impaired person. Ex. 1009, 30:13–31:63. In one embodiment described in McLaughlin, the hearing-impaired user has an answering device or system, comprising two SVD modems, connected to two communication links, Line A and Line B. *Id.* at 30:59–63, 32:17–19. These communication links may use local area network (LAN), wide area network (WAN), or Internet communications over analog lines or digital lines, such as Integrated Services Digital Network (ISDN) or digital subscriber line (DSL) technology. *Id.* at 30:46–53. When a voice call from the hearing user arrives on Line A, the answering device sets up an SVD link with the relay service on Line B. *Id.* at 31:35–40. Voice sounds received from the hearing user on Line A are sent to the relay operator on Line B. *Id.* at 31:41–43. The relay operator translates the voice sounds into text, which is sent over Line B to appear on the screen of the hearing-impaired user’s answering device. *Id.* at 31:43–47. The hearing-impaired user also types responses back to the relay operator over Line B. *Id.* at 31:47–49. The relay operator voices the text, and the relay operator’s voice sounds are carried on Line B to the hearing-impaired user’s answering device and passed over to Line A to be heard by the hearing user. *Id.* at 31:49–52. Conversation among all three parties is “full duplex,” so that all parties may talk or type simultaneously. *Id.* at 31:55–62.

2. Claim 7

As discussed, claim 7 has an effective filing date of September 8, 1997. McLaughlin issued on January 30, 2001, with a filing date of March 18, 1998. Ex. 1009. Petitioner asserts that McLaughlin is entitled to the benefit of the filing date of its provisional application, March 25, 1997, and, therefore, is prior art to claim 7 under 35 U.S.C. § 102(e). Pet. 26. Patent

IPR2013-00544
Patent 8,213,578 B2

Owner responds that, assuming the effective filing date of claim 7 is September 8, 1997, McLaughlin is not prior art because Petitioner has not shown McLaughlin is entitled to claim the benefit of the filing date of its provisional application. PO Resp. 35. In its Reply, Petitioner submits that the burden shifted to Patent Owner to disprove McLaughlin's entitlement to the earlier filing date because Petitioner attached both McLaughlin and its provisional to the Petition. Reply 2.

We agree with Patent Owner that Petitioner has not shown that McLaughlin is prior art to claim 7 under § 102(e). To be entitled to rely on the March 25, 1997, provisional filing date, Petitioner must demonstrate it relies on subject matter that is present in and supported by the provisional. *See In re Giacomini*, 612 F.3d 1380, 1383 (Fed. Cir. 2010). Although Petitioner filed the McLaughlin provisional application, Exhibit 1024, with the Petition, Petitioner has not provided any explanation of how the provisional supports the subject matter relied upon for its asserted obviousness ground. The McLaughlin provisional appears to be an invention disclosure that, on its face, does not resemble the issued patent. *Compare* Ex. 1024 *with* Ex. 1009. Given this lack of resemblance, Patent Owner's challenge to whether Petitioner has shown sufficient support, and Petitioner's failure to identify material in the provisional that provides support for portions of McLaughlin relied upon by Petitioner, we are unable to find that McLaughlin is § 102(e) prior art to claim 7 of the '578 patent. Thus, Petitioner has not shown by a preponderance of the evidence that claim 7 is unpatentable for obviousness over Ryan and McLaughlin.

IPR2013-00544
Patent 8,213,578 B2

3. *Claims 8–11*¹⁶

Claims 8–11 depend from independent claim 7. As discussed above, Ryan teaches all of the limitations of claim 7. *See supra* II.D.3. As Petitioner asserts, McLaughlin also teaches two of the limitations of claim 7—providing words spoken by a remote user to a relay, and presenting the text stream to an assisted user via a display. *See* Pet. 46–47 (citing Ex. 1009, 29:20–27, 31:41–47). For the additional limitations in dependent claims 8–11, Petitioner relies on McLaughlin. Pet. 47–51.

Claim 8 recites “receiving the words spoken at a captioned telephone device and transmitting the words spoken from the captioned telephone device to the relay.” Claim 9 depends from claim 8 and further recites “transmitting the text stream from the relay to the captioned telephone device.” We agree with Petitioner that McLaughlin teaches these limitations with its description of an assisted user’s answering device that receives voice sounds from a hearing user on Line A, transmits those sounds to the relay operator on Line B, and receives text from the relay operator on Line B. *See* Pet. 47–49 (citing Ex. 1009, 31:41–47; 32:41–43).

¹⁶ If we treated the preamble of claim 7 as a limitation that requires receiving the remote user’s voice at the assisted user’s location, Petitioner asserts that the effective filing date of claim 7 would be no earlier than February 14, 2001, the filing date of U.S. Patent No. 6,594,346, and McLaughlin would be prior art to claim 7 under 35 U.S.C. § 102(a) and § 102(e). Pet. 14, 26. Patent Owner does not challenge these assertions. Thus, if we construed claim 7 to include the additional limitation, which is recited explicitly in claim 8 (“receiving the words spoken at a captioned telephone device”), the analysis with respect to claim 8 would apply also to claim 7. Our conclusion for claim 7 then would be the same as for claim 8, i.e., that Petitioner has shown by a preponderance of the evidence that claim 7 would have been obvious over the combination of Ryan and McLaughlin.

IPR2013-00544
Patent 8,213,578 B2

Patent Owner argues that McLaughlin does not teach a captioned telephone device because (i) McLaughlin’s answering device does not play audio of the remote user’s voice to the assisted user, and (ii) McLaughlin does not teach a device located at an assisted user’s station that performs all the functions of a captioned telephone device. PO Resp. 36–41. We find Patent Owner’s arguments unpersuasive. First, the claim language does not require providing audio of the remote user’s voice to the assisted user. Rather, claim 8 requires receiving the remote user’s voice at a captioned telephone device and transmitting the voice to the relay. Similarly, our construction of “captioned telephone device” only requires a device that receives and transmits voice signals, not one that makes the received voice signals audible to the assisted user. *See supra* II.A.1. Second, McLaughlin teaches an answering device that receives voice on Line A and transmits voice and receives text on line B using SVD modems, and also includes a screen for displaying text to a hearing-impaired user, thereby meeting the requirements of a captioned telephone device as we have construed the term. Ex. 1009, 30:46–48, 30:59–63, 31:41–47; 32:41–52. On this point, based on our review of McLaughlin, we credit the testimony of Petitioner’s declarant, Mr. Occhiogrosso, over that of Patent Owner’s declarant, Mr. Ludwick. *See* Ex. 1030 ¶¶ 41–44; Ex. 2010 ¶¶ 32–34.

Claims 8 and 9 further require that voice and text be transmitted over a cellular or wireless connection, and claims 10 and 11 require that voice be transmitted to the relay via an Internet Protocol (IP) connection. As Petitioner indicates, McLaughlin states that LAN, WAN, or Internet communications, such as those used in McLaughlin’s relay system, may be wireless. Pet. 48 (citing Ex. 1009, 6:44–48, 30:46–53). McLaughlin also

IPR2013-00544
Patent 8,213,578 B2

states that Internet communication links conform to a known protocol, such as TCP/IP (Transmission Control Protocol/Internet Protocol). Ex. 1009, 1:31–36. Although McLaughlin does not mention wireless or IP communications specifically in connection with a relay service, we find that the general discussion of communication technologies and protocols applies to all of the embodiments described in McLaughlin, including the relay service, and at the very least suggests to a person of ordinary skill in the art the use of wireless and IP connections.

Petitioner also has articulated sufficient reasoning with some rational underpinning to support the legal conclusion that the subject matter of the claims would have been obvious to one of ordinary skill in the art in view of the teachings of Ryan and McLaughlin as combined in the manner proposed by Petitioner. *See KSR*, 550 U.S. at 418; Pet. 43–44 (citing Ex. 1030 ¶¶ 61–62); Reply 9–10 (citing Ex. 1057 ¶¶ 61–68). McLaughlin teaches most of the limitations of claims 8–11, including a two-line captioned telephone device. McLaughlin, however, does not teach re-voicing the remote user’s words at the relay using voice recognition software trained to the voice of the call assistant, as recited in independent claim 7. Instead, McLaughlin describes a relay service with a call assistant, but also indicates that a relay may use automated equipment. Ex. 1009, 29:20–22. Ryan teaches using speech recognition software to automate the relay function, but further teaches that the accuracy of the relay may be improved if a call assistant re-voices the remote user’s words into voice recognition software designed to recognize the call assistant’s voice. Ex. 1004, 4:33–38. We are persuaded that a person of ordinary skill in the art would have looked to Ryan for ways to automate the relay function in McLaughlin’s system and would have

IPR2013-00544
Patent 8,213,578 B2

recognized that Ryan’s intermediate re-voicing solution—using voice recognition software trained to the call assistant’s voice—would perform better than speaker-independent voice recognition applied directly to the remote user’s voice. *See* Pet. 44; Ex. 1030 ¶ 61.

Patent Owner contends that the claims would not have been obvious over Ryan and McLaughlin because combining Ryan and McLaughlin would require a substantial redesign of McLaughlin and change its principle of operation. PO Resp. 46. We disagree and credit the testimony of Mr. Occhigrosso that such a combination would not be difficult for a person of ordinary skill in the art to implement. *See* Reply 10; Ex. 1057 ¶ 61. Moreover, McLaughlin focuses on a network configuration that uses simultaneous voice and data (SVD) modems in conjunction with a relay, not the details of how a relay translates voice to text during a call between a remote user and an assisted user. *See* Ex. 1009, 30:13–31:63. Thus, we are not persuaded that McLaughlin’s principle of operation is “the use of a conventional relay for typed transactions,” as Patent Owner asserts. *See* PO Resp. 46.

Patent Owner also argues that McLaughlin teaches away from the use of trained voice recognition software. *Id.* at 46–47. In particular, Patent Owner submits that McLaughlin explains the shortcomings of automated speech recognition technology. *Id.* (citing Ex. 1009, 26:54–62). McLaughlin’s statement, however, involves the application of speech recognition to voice messages left by callers, not voice recognition software trained to the voice of a call assistant, i.e., speaker-dependent voice recognition. McLaughlin, therefore, does not criticize, discredit, or

IPR2013-00544
Patent 8,213,578 B2

discourage the combination of Ryan's re-voicing technique with McLaughlin's system.

As discussed in connection with obviousness based on Wycherley and Yamamoto, Patent Owner has not provided sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner's evidence of obviousness against Patent Owner's asserted objective evidence of nonobviousness, we determine that a preponderance of the evidence supports Petitioner's position that claims 8–11 would have been obvious over Ryan and McLaughlin.

III. CONCLUSION

Based on the evidence and arguments, Petitioner has demonstrated by a preponderance of the evidence that:

(1) claim 7 is unpatentable under 35 U.S.C. § 102(e) as anticipated by Ryan;

(2) claim 7 is unpatentable under 35 U.S.C. § 103(a) as obvious over Wycherley and Yamamoto; and

(3) claims 8–11 are unpatentable under 35 U.S.C. § 103(a) as obvious over Ryan and McLaughlin.

IPR2013-00544
Patent 8,213,578 B2

IV. ORDER

Accordingly, it is:

ORDERED that claims 7–11 of U.S. Patent No. 8,213,578 B2 are unpatentable;

FURTHER ORDERED that Patent Owner’s Motion to Exclude Mr. Occhiogrosso’s testimony is *denied*; and

FURTHER ORDERED that Patent Owner’s Motion to Exclude the Yamamoto reference is *denied*.

This is a final decision. Parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2013-00544
Patent 8,213,578 B2

PETITIONER:

Brian W. Oaks
Bryant C. Boren Jr.
Harper S. Batts
Adam F. Smoot
Joseph Gray
BAKER BOTTS L.L.P.
brian.oaks@bakerbotts.com
bryant.c.boren@bakerbotts.com
harper.batts@bakerbotts.com
adam.smoot@bakerbotts.com
joseph.gray@bakerbotts.com

PATENT OWNER:

Michael Jaskolski
Martha Snyder
Nikia L. Gray
Michael J. Curley
QUARLES & BRADY LLP
michael.jaskolski@quarles.com
martha.snyder@quarles.com
nikia.gray@quarles.com
michael.curley@quarles.com

Trials@uspto.gov
Tel: 571-272-7822

Paper 76
Entered: December 1, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, L.L.C.,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Case IPR2013-00544
Patent 8,213,578 B2

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

PETTIGREW, *Administrative Patent Judge*.

DECISION
Patent Owner's Request for Rehearing
37 C.F.R. § 42.71

IPR2013-00544
Patent 8,213,578 B2

I. INTRODUCTION

Petitioner, CaptionCall, L.L.C., filed a Petition requesting an *inter partes* review of claims 7–11 of U.S. Patent No. 8,213,578 B2 (Ex. 1001, “the ’578 patent”). Paper 1 (“Pet.”). We instituted an *inter partes* review for claims 7–11. Paper 6. In our Final Written Decision, we determined that Petitioner had shown, by a preponderance of the evidence, that claims 7–11 were unpatentable. Paper 74 (“Final Dec.” or “Final Decision”). Patent Owner, Ultratec, Inc., requests a rehearing of the Final Decision by an expanded panel. Paper 75 (“Req.” or “Request”). Having considered Patent Owner’s Request, we grant the Request for Rehearing for the limited purpose of modifying our analysis regarding the rationale for combining the Ryan and McLaughlin references. We deny the Request for Rehearing in all other respects.

II. DISCUSSION

The party challenging a decision in a request for rehearing bears the burden of showing the decision should be modified. 37 C.F.R. § 42.71(d). A request for rehearing “must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed.” *Id.*

A. Status of Ryan as Prior Art

In the Final Decision, in response to Patent Owner’s argument that Ryan¹ did not qualify as prior art because it was not enabled (Paper 27, 15–23 (“PO Resp.”)), we determined that Ryan was enabled prior to the date of

¹ U.S. Patent No. 5,809,112 (Ex. 1004).

IPR2013-00544

Patent 8,213,578 B2

invention of the challenged patent in 1997 and, therefore, qualified as prior art to the challenged claims. Final Dec. 21–25.

In its Request for Rehearing, Patent Owner argues, as it did in its Patent Owner Response, that for a patent to serve as prior art the patent must be enabled as to its own earliest claimed effective filing date in 1994. Req. 1–4; PO Resp. 15–22. We addressed this argument in the Final Decision and additionally examined the evidence of record as to whether Ryan would have enabled one of ordinary skill in the art to make the invention without undue experimentation prior to the date of invention of the challenged patent. Final Dec. 22–25. We are not persuaded that we overlooked or misapprehended Patent Owner’s prior argument or made an erroneous interpretation of law.

Patent Owner additionally argues that our consideration of Ryan as prior art as of the date of invention of the challenged patent (1997), was “substantially different than the adopted ground” at issue in the *inter partes* review because the Petition (Paper 1) did not discuss this issue. Req. 4 (“The Petition only discussed potential priority dates in 1994 and 1996, not 1997.”). We disagree. As noted in our Decision to Institute, *inter partes* review was instituted for “[c]laim 7 as anticipated under 35 U.S.C. § 102 by Ryan.” Paper 6, 21 (IV. ORDER). During the *inter partes* review, Patent Owner argued, in its Patent Owner Response, that Ryan did not anticipate claim 7 (PO Resp. 15–35), including a challenge to the prior art status of Ryan (*id.* at 15–23). The Final Decision discussed the instituted ground of anticipation by Ryan and addressed Patent Owner’s assertions, including those regarding the prior art status of Ryan. Final Dec. 19–29.

IPR2013-00544
Patent 8,213,578 B2

In a similar vein, Patent Owner argues it should have received express notice “that enablement would be assessed in 1997” so it could submit evidence concerning enablement in 1997. Req. 5. We are not persuaded by this argument. First, Patent Owner expressly argued this issue its Patent Owner Response. PO Resp. 21 (“Even if the Board determines that Petitioner may show that Ryan was enabled at any point before the date of invention for the claimed use of revoicing in a telecommunications relay service, Petitioner will be unable to make that showing.”); *see id.* at 22 (asserting the date of invention of June 23, 1997). Thus, Patent Owner submitted arguments concerning enablement in 1997, the very issue about which Patent Owner now contends it was not informed and so missed the opportunity to submit relevant evidence. Moreover, as noted in our Final Decision, Patent Owner and Petitioner did not dispute that the “re-voicing limitation” was enabled on June 23, 1997, with the release of commercial voice recognition software to the public. Final Dec. 22 (citing PO Resp. 22; Reply 3; Exs. 2011, 2012, 2013). As noted in our Final Decision, public availability of the commercial voice recognition software as of 1997 is corroborated by U.S. Patent No. 5,909,482, incorporated by reference into the challenged patent. *Id.* (quoting Ex. 1002, 5:51–57).

Patent Owner further asserts we overlooked evidence that the invention was conceived and diligently reduced to practice before Ryan was enabled. Req. 4 (citing Exs. 2011, 2012, 2013). We did not overlook this evidence. Rather, we examined this evidence in our Final Decision and found the evidence insufficient. Final Dec. 22 (“Patent Owner’s earliest proffered evidence dates back only to August 5, 1997, not to June 23, 1997,”

IPR2013-00544

Patent 8,213,578 B2

when Ryan was enabled); *see id.* at 21–22 (analyzing Patent Owner’s evidence offered in Exhibits 2011, 2012, and 2013).

For these reasons, we are not persuaded that we overlooked or misapprehended Patent Owner’s prior argument or made an erroneous interpretation of law concerning the availability of Ryan as prior art to the challenged claims.

B. Yamamoto Transcript

Patent Owner contends we circumvented our own rules in admitting the transcript² of a videotaped interview with Mr. Seiichi Yamamoto, the first named author of the Yamamoto reference.³ Req. 5–7. The interview was conducted in connection with a related district court proceeding between the parties. *See* Final Dec. 31. In the district court proceeding, the parties stipulated that the Yamamoto transcript—a stenographic record of the English portion of the interview (questions from both parties and an interpreter’s translation of Mr. Yamamoto’s testimony)—would be treated as sworn deposition testimony in the district court proceeding and, “[w]ith respect to other proceedings, the stenographic record will be treated as a sworn deposition taken in [the district court proceeding] at which both parties appeared and had the opportunity to question the witness.” Ex. 1067 ¶ 5 (Stipulation Regarding Seiichi Yamamoto). As explained in our Final Decision, we granted Petitioner’s motion to submit the Yamamoto transcript as supplemental information under 37 C.F.R. § 42.123(b) relating to the

² Ex. 2017 (Videoconference Deposition of Seiichi Yamamoto, Aug. 20, 2014) (“Yamamoto transcript”).

³ Yamamoto is a Japanese language document—Seiichi Yamamoto and Masanobu Fujioka, *New Applications of Voice Recognition*, Proc. JASJ Conf. (March 1996) (Ex. 1006; Ex. 1007 (English language translation)).

IPR2013-00544
Patent 8,213,578 B2

prior art status of Yamamoto and, after supplemental briefing by the parties, determined the Yamamoto transcript was admissible. Final Dec. 31–35.

Patent Owner argues in its Request for Rehearing that the Yamamoto transcript is inadmissible because it does not satisfy the requirements that all testimony, other than uncompelled direct testimony, must be in the form of a deposition transcript, 37 C.F.R. § 42.53(a), and that the witness shall be sworn, 37 C.F.R. § 42.53(f)(1). Req. 5. Therefore, according to Patent Owner, the Yamamoto transcript was “not taken, sought, or filed in accordance with these regulations [and] is not admissible.” *Id.* (citing 37 C.F.R. § 42.61(a)). Rule 42.53, however, is titled “Taking Testimony,” and applies only to testimony taken “during a testimony period set by the Board” for purposes of a particular review proceeding. 37 C.F.R. § 42.53(b); *see also* 37 C.F.R. § 42.53(c) (providing time limits set by the Board); *id.* § 42.53(d) (providing notice requirements). As stated in our Final Decision, Petitioner sought to admit the Yamamoto transcript as a deposition taken in the district court proceeding, not as deposition testimony taken in this *inter partes* proceeding. Final Dec. 32. And based on the parties’ stipulation in district court, we treated the Yamamoto transcript as sworn deposition testimony taken in the district court. *Id.* at 32–33 (citing Ex. 1067 ¶ 5). Petitioner filed the Yamamoto transcript as supplemental information under 37 C.F.R. § 42.123(b), establishing that the Yamamoto transcript reasonably could not have been obtained earlier and that its consideration was in the interests of justice. Paper 59, 7–8. Therefore, Petitioner’s filing of the Yamamoto transcript complied with Board rules, and we properly relied on it in determining the public accessibility of Yamamoto. *See* Final Dec. 35–38.

IPR2013-00544
Patent 8,213,578 B2

Having reviewed Patent Owner's Request, we are not persuaded we misapprehended or overlooked any matter relating to the admissibility of the Yamamoto transcript.

C. Claim Construction

Because the parties articulated different views on how "trained to the voice of the call assistant" should be interpreted relative to the asserted prior art, we analyzed Patent Owner's implied constructions of the term and Patent Owner's declarant's testimony concerning the same. Final Dec. 11–13. In its Request for Rehearing, Patent Owner argues that we "misapprehended claim construction law" in determining software "trained to the voice of the call assistant" was not limited to training to the voice of one and only one particular call assistant and did not preclude voice recognition software that is designed or built in advance of implementation at the source code level to the voice of a call assistant. Req. 7–10.

First, Patent Owner contends that we erroneously relied on the disclosure in the '578 patent of "voice pattern." *Id.* at 7–9. We disagree that our reliance on the "Brief Summary of the Invention," which refers to "a speech recognition computer program which has been trained to the voice *pattern* of the call assistant," was improper. *See* Final Dec. 12 (quoting Ex. 1001, 2:44–46 (emphasis added)). Rather, in our Final Decision, we determined that the '578 patent contemplated software trained to a "voice *pattern* of the call assistant," as set forth in the "Brief Summary of the Invention," as well as software "specifically trained to the voice of [a] *particular* call assistant," as described in the context of a particular relay embodiment shown in Figure 1. Final Dec. 12 (quoting Ex. 1001, 2:44–46; Ex. 1002, 5:44–47).

IPR2013-00544
Patent 8,213,578 B2

Based on the evidence in the written description (including the disclosure of “voice pattern”), we determined that the ’578 patent did not indicate expressly how training occurs. *Id.* Giving the claim language its broadest reasonable construction in light of the specification, we concluded we would not limit “trained to the voice of the call assistant” to require training to the voice of one particular call assistant. *Id.*

We turn next to Patent Owner’s argument in its Request for Rehearing that we erred in concluding that “trained to the voice of the call assistant” does not include a temporal constraint that precludes voice recognition software that is designed or built in advance of implementation at the source code level to the voice pattern of a call assistant. Req. 9–10 (citing Final Dec. 11). Patent Owner asserts that we overlooked an alleged admission at the Hearing by Petitioner that the claim language inherently includes a temporal constraint that precludes training when the software is designed in advance of implementation at the source code level. Req. 10 (citing Paper 75 (Hearing Transcript), 17:3–5). We are not persuaded that we did so. Rather, we considered Petitioner’s statement at the Hearing in light of the evidence of record.

In our Final Decision, we determined that the written description discloses that the voice recognition software package is trained but does not indicate when or how the training occurs. Final Dec. 12. We rejected Patent Owner’s argument, relying on its declarant, that software “designed” is not software that is “trained to recognize individual voices” because we found insufficient support for Patent Owner’s contention. *Id.* (citing PO Resp. 24). As we explained in our Final Decision, Patent Owner’s declarant testified that a person of ordinary skill in the art would not have understood “trained”

IPR2013-00544

Patent 8,213,578 B2

software to include “designed” software because technology to train software to recognize individual voices did not exist in 1994 and was not used in telecommunications relay service at that time. *Id.* (citing PO Resp. 29–30; Ex. 2010 ¶¶ 21–22). We weighed this testimony, which relied on capabilities of technology available in 1994, and concluded this testimony had little probative value of the understanding of one of ordinary skill in the art at the time of invention because the earliest date of invention for claims of the ’578 patent was 1997. *Id.* The weight we gave to the testimony of Patent Owner’s declarant reflected the parties’ agreement that commercial software that could be trained to recognize individual voices was available in 1997, as discussed previously. *See* Final Dec. 22 (citing PO Resp. 22; Reply 3; Exs. 2011, 2012, 2013). In other words, the understanding of one of ordinary skill as of 1997 was crucial given the shift in technology at that time, and the testimony of Patent Owner’s declarant was only reflective of the understanding prior to this shift.

Moreover, Petitioner’s declarant indicates that one of ordinary skill in the art would have understood that Ryan describes speech recognition software trained to the voice of a call assistant. Ex. 1057 ¶¶ 51–52. The testimony of Petitioner’s declarant is supported further by prior art of record that indicates voice recognition software trained to a particular user in relay systems was known. *See id.* ¶ 52 (citing Ex. 1005, 4:37–49). This testimony further undermines Patent Owner’s position.

Thus, we do not agree with Patent Owner that we erred by not considering Petitioner’s purported “admission” made at the Hearing. Rather, we considered Petitioner’s statement in determining that Ryan’s description of benefits provided by voice recognition software that “is specifically

IPR2013-00544

Patent 8,213,578 B2

designed to recognize the voice of particular relay agents” (Ex. 1004, 4:33–38) discloses the trained software recited in the claims of the ’578 patent.

See Final Dec. 25–29.

For the reasons given, we are not persuaded that we misapprehended claim construction law in our construction of “trained to the voice of the call assistant.”

D. Combination of Ryan and McLaughlin

In its Request for Rehearing, Patent Owner contends we misapprehended the law regarding motivation to combine references in our discussion of obviousness of claims 8–11 of the ’578 patent based on Ryan and McLaughlin.⁴ Req. 10–12. Although we disagree that we misapprehended the law, we grant Patent Owner’s request for the purpose of modifying our analysis regarding the rationale for combining Ryan and McLaughlin (Final Dec. 52–54) as described below. As in our Final Decision, we conclude that Petitioner has articulated sufficient reasoning with some rational underpinning to support the legal conclusion that the subject matter of the claims would have been obvious to one of ordinary skill in the art in view of the teachings of Ryan and McLaughlin. *See KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007); Pet. 43–44; Reply 9–10; Ex. 1030 ¶¶ 61–62; Ex. 1057 ¶¶ 60–62. The remainder of this section replaces the three paragraphs of the Final Decision addressing the rationale for combining Ryan and McLaughlin, beginning on page 52 and continuing through the first two lines on page 54.

⁴ U.S. Patent No. 6,181,736 B1, issued Jan. 30, 2001 (Ex. 1009).

IPR2013-00544
Patent 8,213,578 B2

McLaughlin teaches most of the limitations of claims 8–11, including a two-line captioned telephone device. McLaughlin, however, does not teach re-voicing the remote user’s words at the relay using voice recognition software trained to the voice of the call assistant, as recited in independent claim 7. Instead, McLaughlin describes a relay service in which a call assistant or automated equipment mediates telephone calls between a speaking person and a deaf person. Ex. 1009, 29:20–22. McLaughlin also identifies computerized speech recognition as one type of automated equipment for translating voice to text, although McLaughlin acknowledges the limitations of speech recognition software in recognizing certain kinds of speech, including conversational speech. *Id.* at 26:59–62.

Ryan teaches using speech recognition software to automate the relay function. Ex. 1004, 4:19–28. According to Mr. Occhiogrosso, whose testimony we credit on this point, it was well known in the field of speech recognition at the time of the invention that speaker-dependent speech recognition (e.g., trained to the voice of a particular speaker) performed better than untrained, speaker-independent speech recognition. Ex. 1030 ¶¶ 22, 61; Ex. 1057 ¶ 62. This is reflected in Ryan’s teaching that the accuracy of a relay that uses speech recognition software may be improved if a call assistant re-voices the remote user’s words into a terminal with voice recognition software designed to recognize the call assistant’s voice. Ex. 1004, 4:33–38.

Thus, McLaughlin teaches the use of automated equipment at a relay, Ex. 1009, 29:20–22, and Ryan teaches a computer with speech recognition software as one form of automated equipment that can be used at a relay, Ex. 1004, 4:33–38. McLaughlin also notes the use of computerized speech

IPR2013-00544

Patent 8,213,578 B2

recognition in another, but similar, context, i.e., translation of voice mail messages from voice to text. Ex. 1009, 26:59–62. A person of ordinary skill in the art would have recognized that Ryan’s intermediate re-voicing solution—using voice recognition software trained to the voice of a call assistant at a relay—would address the shortcomings of applying voice recognition directly to a remote caller’s voice, acknowledged by McLaughlin. *See* Pet. 44; Reply 9–10; Ex. 1030 ¶ 61; Ex. 1057 ¶ 62. As Mr. Occhiogrosso explains, combining the teachings of Ryan and McLaughlin to achieve the claimed invention involves nothing more than directing the captioned telephone device of McLaughlin to connect to a re-voicing relay, as taught in Ryan, rather than a conventional relay. Ex. 1057 ¶ 61; *see* Reply 10. For these reasons, we are persuaded that a person of ordinary skill in the art would have combined the teachings of Ryan and McLaughlin, using Ryan’s re-voicing relay in place of McLaughlin’s relay, along with McLaughlin’s two-line captioned telephone device.

Patent Owner contends that the claims would not have been obvious over Ryan and McLaughlin because combining Ryan and McLaughlin would require a substantial redesign of McLaughlin and change its principle of operation. PO Resp. 46. We disagree and credit the testimony of Mr. Occhigrosso that such a combination would not be difficult for a person of ordinary skill in the art to implement. *See* Reply 10; Ex. 1057 ¶ 61. Moreover, McLaughlin focuses on a network configuration that uses simultaneous voice and data (SVD) modems in conjunction with a relay, not the details of how a relay translates voice to text during a call between a remote user and an assisted user. *See* Ex. 1009, 30:13–31:63. Thus, we are not persuaded that McLaughlin’s principle of operation is “the use of a

IPR2013-00544

Patent 8,213,578 B2

conventional relay for typed transactions,” as Patent Owner asserts. *See* PO Resp. 46.

Patent Owner also argues that McLaughlin teaches away from the use of trained voice recognition software. *Id.* at 46–47. In particular, Patent Owner submits that McLaughlin acknowledges the shortcomings of automated speech recognition technology and, therefore, would have discouraged one of ordinary skill in the art from attempting to design the relay claimed in the ’578 patent. *Id.* (citing Ex. 1009, 26:54–62). McLaughlin, however, refers to the limitations of speech recognition in the context of translating voice mail messages to text for deaf users, not in connection with relay services discussed in another section of McLaughlin. *See* Ex. 1009, 26:54–62. Moreover, as discussed previously, we credit the testimony of Mr. Occhiogrosso that it was well known in the field of speech recognition at the time of the invention that speaker-dependent speech recognition (e.g., trained to the voice of a particular speaker), such as that used in Ryan’s re-voicing technique, performed better than untrained, speaker-independent speech recognition, such as would be used in the voice mail application described in McLaughlin. *See* Ex. 1030 ¶¶ 22, 61; Ex. 1057 ¶ 62. On the facts presented here, we are not persuaded that McLaughlin’s statement regarding the limitations of speech recognition technology sufficiently teaches away from the combination of Ryan’s re-voicing scheme with McLaughlin’s relay system to establish nonobviousness. *See In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994).

E. Secondary Considerations

Patent Owner alleges that by “balancing” evidence of obviousness against secondary considerations evidence, we effectively determined the

IPR2013-00544

Patent 8,213,578 B2

claimed invention would have been obvious before considering secondary considerations. Req. 14 (citing Final Dec. 47). We disagree. Rather, in analyzing obviousness based on Wycherley and Yamamoto in our Final Decision, we determined the scope and content of the asserted prior art (Final Dec. 38–39); discussed the claimed subject matter relative to the asserted prior art, which included identifying differences between the claimed subject matter and the prior art in the context of the ordinary level of skill in the art (Final Dec. 39–42); determined Petitioner, with support of its declarant, had articulated sufficient reasoning to support a conclusion of obviousness based on the combined references (Final Dec. 41–44); and analyzed Patent Owner’s secondary considerations of nonobviousness (Final Dec. 44–47). *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Only after that analysis did we address the ultimate conclusion of obviousness of the claimed subject matter by weighing the evidence on both sides:

Accordingly, Patent Owner fails to provide sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner’s evidence of obviousness against Patent Owner’s asserted objective evidence of nonobviousness, we determine that a preponderance of the evidence supports Petitioner’s position that claim 7 would have been obvious over Wycherley and Yamamoto.

Final Dec. 47. We performed a similar analysis for obviousness based on the combination of Ryan and McLaughlin. *Id.* at 47–54.

Patent Owner further contends we refused to consider Patent Owner’s secondary considerations evidence. Req. 12. This is incorrect. We considered the arguments and evidence presented in Patent Owner’s Response. Final Dec. 45–46. We concluded Patent Owner did “not provide

IPR2013-00544

Patent 8,213,578 B2

sufficient analysis for us to determine whether Patent Owner has provided adequate evidence of secondary considerations and a nexus between any such evidence and the merits of the claimed invention.” *Id.*

In its Request, Patent Owner seems to suggest that we should have reviewed and analyzed the entirety of each of three declarations submitted by Patent Owner in support of its secondary considerations contention (Exs. 2002, 2004, and 2005). Req. 12–13. This also is incorrect because, in its Patent Owner Response, Patent Owner merely cited each declaration in its entirety without citing with particularity portions of these declarations. PO Resp. 45 (citing “declarations by Brenda Battat (Ex. 2004) and Constance Phelps (Ex. 2005)” and “declaration of Paul Ludwick (Ex. 2002)”). We will not scour the 137 pages of declaration evidence submitted by Patent Owner and generally serve as an advocate for Patent Owner by finding evidence of secondary considerations in the voluminous exhibits submitted. *Cf. DeSilva v DiLeonardi*, 181 F.3d 865, 866–67 (7th Cir. 1999) (“A brief must make all arguments accessible to the judges, rather than ask them to play archaeologist with the record.”); *Ernst Haas Studio, Inc. v. Palm Press, Inc.*, 164 F.3d 110, 111–12 (2d Cir. 1999) (“Appellant’s Brief is at best an invitation to the court to scour the record, research any legal theory that comes to mind, and serve generally as an advocate for appellant. We decline the invitation.”).

F. Panel Composition

Patent Owner requests rehearing before an expanded panel and additionally asserts we exceeded our authority by issuing a Final Written Decision that did not include a judge that was on the panel of administrative patent judges who decided to institute the review. Req. 1, 15. Panel

IPR2013-00544

Patent 8,213,578 B2

composition for an *inter partes* review is specified in 35 U.S.C. § 6(c), which states “[e]ach . . . *inter partes* review shall be heard by at least 3 members of the Patent Trial and Appeal Board, who shall be designated by the Director.” The Director’s authority under 35 U.S.C. § 6 to designate panels has been delegated to the Chief Judge. *See* Patent Trial and Appeal Board Standard Operating Procedure 1 (Rev. 14) (May 8, 2015) (“PTAB SOP 1”).

The Final Decision was decided by three administrative patent judges, who are members of the Board. *See* 35 U.S.C. § 6(a) (indicating that administrative patent judges, along with various members of the United States Patent and Trademark Office, constitute the Patent Trial and Appeal Board). The three administrative patent judges were designated by the Chief Judge according to PTAB SOP 1, titled “Assignment of Judges to Merits Panels, Interlocutory Panels, and Expanded Panels.” The Board, therefore, complied with the statutory requirements for panel composition. Accordingly, we did not issue the Final Decision with less than a “full panel,” as Patent Owner contends. *See* Req. 15.

Moreover, the Chief Judge has discretion to designate judges to decide *inter partes* reviews. *See* PTAB SOP 1 at 2 (§ II.D) (“In general, the Chief Judge will designate a judge or judges, as appropriate, for all matters for AIA reviews.”); *see also* *AOL Inc. v. Coho Licensing LLC*, Case IPR2014-00771, slip op. at 2 (PTAB Mar. 24, 2015) (Paper 12) (informative) (setting forth that the designation of panel members is within the sole authority of the Chief Judge, as delegated by the Director). Patent Owner’s Request, therefore, does not show the composition of the panel that

IPR2013-00544

Patent 8,213,578 B2

issued the Final Decision was arbitrary, capricious, or an abuse of discretion by the Board.

Patent Owner suggests an expanded panel is warranted to decide the Request in view of the panel composition and various allegations that we misapprehended the law. Req. 1. For the reasons given, Patent Owner does not persuade us that we misapprehended the law or the panel of three judges was deficient. Further, the Board's procedures provide examples of reasons for expanding a panel, none of which apply here. PTAB SOP 1 at 3 (§ III.A). For example, an expanded panel may be appropriate when "serious questions have been raised about the continuing viability of an apparently applicable precedential decision of the Board, or a panel of the Board renders a decision that conflicts with a precedential decision of the Board or an authoritative decision of the Board's reviewing courts." *Id.* Patent Owner's Request does not show a conflict or other reason that weighs in favor of panel expansion. Even so, the panel informed the Chief Judge, who has authority to expand a panel, of Patent Owner's request, and the Chief Judge declined to expand the panel. *See* PTAB SOP 1 at 4 (§ III.C). ("The Chief Judge will determine when an expanded panel is to be designated."); *see also Apple Inc. v. Rensselaer Polytechnic Inst.*, Case IPR2014-00319, slip op. at 2 n.1 (PTAB Dec. 12, 2014) (Paper 20) (indicating only the Chief Judge, acting on behalf of the Director, may act to expand a panel and panels do not authorize panel expansion).

IPR2013-00544
Patent 8,213,578 B2

III. ORDER

For the reasons given, it is

ORDERED that Petitioner's Request for Rehearing is *granted* for the limited purpose of modifying our analysis regarding the rationale for combining Ryan and McLaughlin as explained herein;

FURTHER ORDERED that Petitioner's Request for Rehearing is *denied* in all other respects; and

FURTHER ORDERED that, as determined in our Final Decision, claims 7–11 of U.S. Patent No. 8,213,578 B2 are unpatentable.

IPR2013-00544
Patent 8,213,578 B2

PETITIONER:

Brian W. Oaks
Bryant C. Boren Jr.
Harper S. Batts
Adam F. Smoot
Joseph Gray
BAKER BOTTS L.L.P.
brian.oaks@bakerbotts.com
bryant.c.boren@bakerbotts.com
harper.batts@bakerbotts.com
adam.smoot@bakerbotts.com
joseph.gray@bakerbotts.com

PATENT OWNER:

Michael Jaskolski
Martha Snyder
Nikia L. Gray
Michael J. Curley
QUARLES & BRADY LLP
michael.jaskolski@quarles.com
martha.snyder@quarles.com
nikia.gray@quarles.com
Michael.curley@quarles.com

Trials@uspto.gov
571-272-7822

Paper 65
Entered: March 3, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, L.L.C.,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Case IPR2013-00545
Patent 6,594,346 B2

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

BENOIT, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

IPR2013-00545
Patent 6,594,346 B2

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6(c). This final written decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1 and 2 of U.S. Patent No. 6,594,346 B2 (Ex. 1001; “the ’346 patent”) are unpatentable.

A. Procedural History

CaptionCall, L.L.C. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1 and 2 of the ’346 patent pursuant to 35 U.S.C. §§ 311-319. Paper 1 (“Pet.”). Patent Owner, Ultratec, Inc., did not file a preliminary response. On March 5, 2014, pursuant to 35 U.S.C. § 314(a), we instituted an *inter partes* review for claims 1 and 2 of the ’346 patent as unpatentable under 35 U.S.C. § 103(a) for obviousness over Ryan¹ and Alshawi.² Paper 6 (“Inst. Dec.”).

Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 19; “PO Resp.”), and Petitioner filed a Reply (Paper 32; “Reply”). Patent Owner also filed a Motion to Exclude Evidence. Paper 41 (“PO Mot. to Exc. Occhiogrosso”). Petitioner filed an Opposition (Paper 55; “Pet. Opp. to Mot. to Exc.”) to Patent Owner’s Motion, and Patent Owner filed a Reply to Petitioner’s Opposition (Paper 48; “PO Reply to Opp. to Mot. to Exc.”).

¹ U.S. Patent No. 5,809,112 (Ex. 1004) (“Ryan”).

² U.S. Patent No. 5,815,196 (Ex. 1010) (“Alshawi”).

IPR2013-00545
Patent 6,594,346 B2

An oral hearing was held on November 19, 2014.³

B. Related Proceedings

Petitioner represents that the '346 patent was asserted against its parent company in *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.). Pet. 2. Petitioner also represents that the lawsuit included other patents related to the '346 patent and for which Petitioner also requested *inter partes* review— U.S. Patent No. 6,233,314 B1 (Case IPR2013-00540), U.S. Patent No. 5,909,482 (Case IPR2013-00541), U.S. Patent No. 7,319,740 (Case IPR2013-00542), U.S. Patent No. 7,555,104 (Case IPR2013-00543), U.S. Patent No. 8,213,578 (Case IPR2013-00544), U.S. Patent No. 6,603,835 (Case IPR2013-00549), and U.S. Patent No. 7,003,082 (Case IPR2013-00550).

C. The '346 Patent

The '346 patent describes a computer-assisted relay system to provide text translation of telephone conversation to assist a person who has hearing difficulties (referred to as an “assisted user”). Ex. 1001, 3:20-21, 35-40. A human intermediary (referred to as a “call assistant”) facilitates a telephone conversation between a hearing user and an assisted user by communicating by voice with the hearing user and repeating the hearing user’s words to a computer provided with voice recognition software trained to the voice of

³ This proceeding, as well as IPR2013-00540, IPR2013-00541, IPR2013-00542, IPR2013-00543, IPR2013-00544, IPR2013-00549, and IPR2013-00550 involve the same parties and some similar issues. The oral arguments for all eight reviews were merged and conducted at the same time. A transcript of the oral hearing is included in the record as Paper 64.

IPR2013-00545
 Patent 6,594,346 B2

the call assistant. *See id.* at 1:62-2:11; 3:20-28, 35-39; 6:13-36. The computer of the call assistant sends the text transcription created by the voice recognition software to a display located adjacent to the assisted user. *See id.* at 6:13-44.

Figure 4 of the '346 patent shows a captioned telephone service supported by a relay. *See id.* at 3:15-16; 8:63-65. Figure 4 of the '346 patent is set forth below:

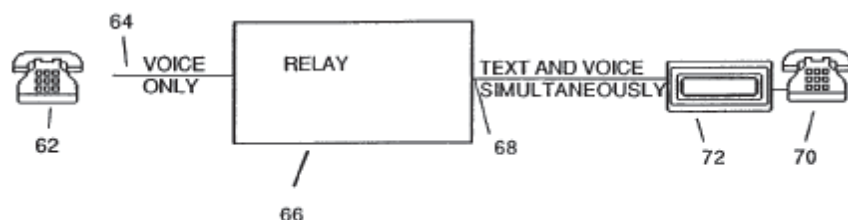


FIG. 4

Figure 4 illustrates a telephone call involving a captioned telephone.

As shown in Figure 4, a hearing user at telephone 62 communicates through telephone line 64 with relay 66. *See id.* at 8:63-66. The relay communicates both the voice of the hearing user and a transcription of the text of the conversation through telephone line 68 to captioned telephone device 72 and conventional telephone 70, both at the site of the assisted user. *See id.* at 8:66-9:7. The captioned telephone assists “the user to understand a greater portion of the conversation by providing a visually readable transcription of the text of the telephone conversation so that the assisted user can read any words that he or she cannot hear properly.” *Id.* at 9:9-13.

IPR2013-00545
Patent 6,594,346 B2

D. Claims of the '346 Patent

Petitioner challenges both claims of the '346 patent. Claims 1 and 2 are independent claims.

1. A method of operating a relay system using a call assistant to facilitate communication between a hearing user and an assisted user by telephone, the hearing user speaking words in voice, the method comprising the steps of

- transmitting the voice of the hearing user when speaking to the ear of the call assistant;
- the call assistant speaking in voice the same words that the call assistant hears spoken by the hearing user into a microphone connected to a digital computer;
- the digital computer using voice recognition computer software trained to the voice of the call assistant to translate the words of the voice spoken by the call assistant into a digital text message stream containing the words spoken by the call assistant;
- transmitting both the digital text message stream and the voice of the hearing user by telephone connection to the assisted user;
- displaying the digital text message stream to a captioned telephone display device within sight of the assisted person; and
- transmitting the voice of the hearing user to the assisted user.

2. A relay to facilitate communications between [a] hearing user, speaking words in voice, and an assisted user, the relay operated by a call assistant, the relay comprising

- a speaker connected to receive the voice from the hearing user and to transmit that voice to the ear of the call assistant so that the call assistant may voice those words;
- a microphone connected to pick up the voice of the call assistant;
- a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package to translate the words spoken by the call

IPR2013-00545
Patent 6,594,346 B2

assistant into a digital text stream; and
a telephonic connection to transmit both the digital text stream and the voice of the hearing user over a telephonic connection to the assisted user.

Id. at 10:2-42.

II. ANALYSIS

A. 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. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, No. 2014-1301, slip op. at 11–19 (Fed. Cir. Feb. 4, 2015). Under the broadest reasonable construction standard, claim terms are presumed to be 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. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We construe the claim language below in accordance with these principles. No other terms require express construction.

1. “software trained to the voice of the call assistant”

Independent claim 1 recites “software trained to the voice of the call assistant,” whereas independent claim 2 does not. Patent Owner incorrectly asserts that, under our preliminary constructions of “voice recognition

IPR2013-00545
Patent 6,594,346 B2

computer software” and “voice recognition computer software package,” independent claim 2 also requires “software trained to the voice of the call assistant.” PO Resp. 12-13. As Petitioner recognizes (Reply 2), we did not import the limitation “trained to the voice of the call assistant” into claim 2. Rather, we expressly construed the recited software as “a separately compilable software component for voice recognition that is ready to be used on a computer.” Inst. Dec. 11-12 (“[W]e construe ‘voice recognition computer software package’ as ‘a separately compilable software component for voice recognition that is ready to be used on a computer.’ . . . [W]e also construe ‘voice recognition computer software’ as ‘a separately compilable software component for voice recognition that is ready to be used on a computer.’”).

In the parties’ dispute over the teachings of the asserted prior art, they articulate different views in how the term “software trained to the voice of the call assistant” should be construed. Patent Owner construes “trained to the voice of the call assistant” to require training to recognize individual voices (PO Resp. 23-24), presumably trained to the voice of one and only one call assistant and precluding training for a type of speech used by a group of people (such as a regional accent) that could apply to more than one call assistant. Patent Owner also seeks to construe “trained to the voice of the call assistant” as having a temporal constraint so as to preclude training at the time when the voice recognition computer software package is “*designed* in advance of implementation at the source code level.” PO Resp. 21. According to Patent Owner, “trained to the voice of the call

IPR2013-00545
Patent 6,594,346 B2

assistant” precludes software that is “built to” recognize the voice of a particular agent. PO Resp. 22. Petitioner disagrees. Reply 4-5.

The Specification of the ’346 patent does not set forth a special definition for “training.” The Specification, however, in its “Brief Summary of the Invention” indicates “a speech recognition computer program which has been trained to the voice *pattern* of the call assistant.” Ex. 1001, 2:51-54 (emphasis added). In the context of describing the relay shown in Figure 1, the Specification describes “the call assistant operat[ing] at a computer terminal which contains a copy of a voice recognition software package which is specifically trained to the voice of that *particular* call assistant.” *Id.* at 6:21-24 (emphasis added). The Specification, however, does not indicate expressly that the voice recognition software is trained to the voice of only that particular call assistant or otherwise indicate the voice recognition software is trained to the voice of only one call assistant. As such, the Specification contemplates software trained to “a voice pattern of the call assistant” as well as software “specifically trained to the voice of [a] *particular* call assistant.”

Further, the Specification indicates, in those passages, that the voice recognition software package is trained but does not indicate when or how the training occurs. *Id.* at 2:51-54, 6:21-24. Patent Owner, relying on its declarant Mr. Ludwick, asserts software “designed” is not software that is “trained to recognize individual voices.” PO Resp. 21 (citing Ex. 2001 ¶¶ 19-20). According to Mr. Ludwick, a person of ordinary skill in the art would not have understood “trained” software to include “designed” software because speech recognition technology was not used in

IPR2013-00545
Patent 6,594,346 B2

telecommunications relay service in 1994. Ex. 2001 ¶¶ 19-20. The use of speech recognition technology in 1994 has little probative value here because the date of invention is February 14, 2001 for the reasons discussed below.

We give claim language its broadest reasonable construction in light of the specification of the patent in which it appears. Thus, we will not limit “trained to the voice of the call assistant” to require training to the voice of only one particular call assistant, because the claim language encompasses the invention as disclosed in the Specification—software trained to a voice *pattern* of a call assistant. Ex. 1001, 2:41-49 (“Summary of the Invention”). Nor will we limit “trained to the voice of the call assistant” to a particular time in which the training must occur or to a particular manner of training that is not found in the claims nor the specification.

Accordingly, “trained to the voice of the call assistant” does not preclude voice recognition software that is designed or built in advance of implementation at the source code level to the voice pattern of a call assistant. Nor is “trained to the voice of the call assistant” limited to training to the voice of one and only one call assistant.

2. “captioned telephone display device”

Independent claim 1 recites “displaying the digital text message stream to a *captioned telephone display device* within sight of the assisted user.” Ex. 1001, 10:21-23 (emphasis added). The ordinary meaning of “telephone” is “[a]n instrument that converts voice and other sound signals into a form that can be transmitted to remote locations and that receives and

IPR2013-00545
Patent 6,594,346 B2

reconverts waves into sound signals.”⁴ In the context of voice communication, a “caption” is text that communicates dialogue.⁵ Thus, according to its ordinary meaning, a captioned telephone display device is a device that transmits and receives voice signals, and displays text.

The ’346 patent, however, uses a similar term “captioned telephone device” in a way that is consistent with the ordinary meaning of captioned telephone display device. Claim 1 recites “transmitting . . . the digital text message stream . . . by telephone connection to the assisted user” and “displaying the digital text message stream to a captioned telephone display device within sight of the assisted person.” Thus, claim 1 requires the digital text message stream, which is transmitted by telephone connection to the assisted user, to be received by the captioned telephone display device before the captioned telephone display device can display the digital text message stream.

Other than in claim 1, the ’346 patent does not use the precise term “captioned telephone *display* device.” The written description of the ’346 patent describes a captioned telephone device as a device that receives both voice signals and text information, and displays the text information to an

⁴ THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1846 (3d ed. 1992); THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1779 (4th ed. 2006).

⁵ THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 286 (3d ed. 1992) (defining “caption” in relevant part as “2. A subtitle in a motion picture.”); THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 278 (4th ed. 2006) (defining “caption” in relevant part as “2. A series of words . . . that communicate dialogue to the hearing-impaired or translate foreign dialogues.”).

IPR2013-00545
Patent 6,594,346 B2

assisted user. *Id.* at 9:3-9 (“The captioned telephone device 72 is constructed to accomplish two objectives. One objective is to filter, or separate, the digital signals carrying the text information from the voice signal. The other objective is to take the digital signals and create a visual display of the text information for the assisted user.”); *see also id.* at Fig. 4 (showing a simultaneous text and voice connection between captioned telephone device 72 and relay 66). Note that a captioned telephone device need not output any audio signals to the assisted user. *See id.* at 9:1-3 (describing a captioned telephone device and telephone at an assisted user’s location as two separate devices), Fig. 4 (illustrating captioned telephone device 72 and telephone 70 as two separate devices).

In light of the use of “captioned telephone display device” in claim 1, the use of “captioned telephone device” in the written description of the ’346 patent, and the ordinary meaning of the term, we construe “captioned telephone display device” as a device that transmits and receives voice signals, receives text information, and displays text to an assisted user.

B. Principles of Law

To prevail in challenging claims 1 and 2 of the ’346 patent, Petitioner must demonstrate by a preponderance of the evidence that the claims are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). A claim is unpatentable under 35 U.S.C. § 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.

IPR2013-00545
Patent 6,594,346 B2

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 ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). The level of ordinary skill in the art is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

C. *Effective Filing Date of Claims 1 and 2*

The '346 patent was filed on February 14, 2001 and claims the benefit of earlier filing dates of applications that issued as the '314 and '482 patents. The '346 patent includes disclosure that is not included in the '314 and '482 patents, which share a common disclosure. For example, the '346 patent describes transmitting both text and voice over a telephone line. *See* Ex. 1001, 3:35-40, 8:61-9:39, Fig. 4. The references asserted here, Ryan and Alshawi, predate the earliest filing date claimed by the '346 patent, but obviousness is determined as of the time of the invention. *See* 35 U.S.C. § 103(a) (“A patent may not be obtained . . . if the differences between the subject matter sought to be patented 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.”) (emphasis added). Patent Owner asserts that the subject matter of the claimed invention would not have been obvious to one of skill

IPR2013-00545
Patent 6,594,346 B2

in the art in 1994 and 1995, and so seems to assert an effective filing date for the '346 patent earlier than its filing date, February 14, 2001. Accordingly, we now determine the effective filing date of the subject matter of independent claims 1 and 2. *Cf.* PO Resp. 32-35 (asserting that Ryan must be read narrowly in view of the state of the relevant art in 1994); *id.* at 18 (“Patent Owner does not concede that claims 1 and 2 of the '346 Patent are not entitled” to an earlier effective filing date).

For a claim in a later-filed application to be entitled to an earlier filing date, the earlier application must satisfy the written description requirement of 35 U.S.C. § 112, first paragraph. *See* 35 U.S.C. § 120; *In re Huston*, 308 F.3d 1267, 1276 (Fed. Cir. 2002). “[T]he purpose of the written description requirement is to ‘ensure that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor's contribution to the field of art as described in the patent specification.’” *Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1353-54 (Fed. Cir. 2010) (en banc) (quoting *Univ. of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 920 (Fed. Cir. 2004)). The written description requirement is met if the specification shows that the inventor has invented what is claimed—that is, the inventor had possession of it. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991).

Independent claim 1 recites “transmitting both the digital text message stream and the voice of the hearing user by telephone connection to the assisted user,” and independent claim 2 recites “a telephonic connection to transmit both the digital text stream and the voice of the hearing user over a telephonic connection to the assisted user.” The earlier applications, which

IPR2013-00545
Patent 6,594,346 B2

issued as the '482 and '314 patents, do not disclose transmitting both text and voice over a telephone line, as claimed in independent claims 1 and 2 of the '346 patent. As such, the earlier applications do not meet the written description requirement for claims 1 and 2. Therefore, independent claims 1 and 2 only are entitled to a priority date of February 14, 2001, the filing date of the application that issued as the '346 patent.

D. Patent Owner's Motion to Exclude Testimony by Mr. Occhiogrosso

Patent Owner seeks to exclude the testimony of Mr. Benedict Occhiogrosso (Exs. 1019, 1037, 2006, 2007, and 2012) on the theory that he is not qualified as an expert under Federal Rule of Evidence 702 ("FRE 702").^{6,7} PO Mot. to Exc. Occhiogrosso; PO Resp. 4-8. FRE 702 provides that a witness qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion if (a) the expert's knowledge will help the trier of fact to understand the evidence or to determine a fact in issue, (b) the testimony is based upon sufficient facts or data, (c) the testimony is the product of reliable principles

⁶ Patent Owner also seeks to *exclude* Mr. Occhiogrosso's testimony under 37 C.F.R. § 42.65. PO Mot. to Exc. Occhiogrosso 1. Rule 42.65, however, addresses (a) the weight given to expert testimony that does not disclose underlying facts or data on which the opinion is based, (b) the showing required if a party seeks to rely on a technical test or data from such a test, and (c) the exclusion of expert testimony on United States patent law or patent examination practice. As such, Rule 42.65 does not apply to a determination whether to exclude Mr. Occhiogrosso's testimony.

⁷ With some enumerated exceptions, the Federal Rules of Evidence apply to an *inter partes* review. 37 C.F.R. § 42.62.

IPR2013-00545
Patent 6,594,346 B2

and methods, and (d) the witness has applied the principles and methods reliably to the facts of the case.

Testimony on the issue of unpatentability proffered by a witness who is not “qualified in the pertinent art” generally is not admissible under FRE 702. *Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1363–64 (Fed. Cir. 2008). In determining who is qualified in the pertinent art under FRE 702, we need not find a complete overlap between the witness’s technical qualifications and the problem confronting the inventor or the field of endeavor. *See SEB S.A. v. Montgomery Ward & Co., Inc.*, 594 F.3d 1360, 1372–73 (Fed. Cir. 2010) (upholding admission of the testimony of an expert who admittedly lacked expertise in the design of the patented invention, but had experience with materials selected for use in the invention); *Mytee Prods., Inc. v. Harris Research, Inc.*, 439 Fed. App’x 882, 886–87 (Fed. Cir. 2011) (non-precedential) (upholding admission of the testimony of an expert who “had experience relevant to the field of the invention,” despite admission that he was not a person of ordinary skill in the art).

Patent Owner contends that, to qualify as an expert under FRE 702, Mr. Occhiogrosso must be a person of ordinary skill in the art, and that Mr. Occhiogrosso is not a person of ordinary skill in the art because “he is an information technology (“IT”) generalist” and does not have “any specific experience in the context of [telecommunications relay systems] for the deal and the HOH [hear of hearing].” PO Mot. to Exc. Occhiogrosso 5; *see also id.* at 2-4 (discussing the definition of a person of ordinary skill in the art); 5-7 (discussing Mr. Occhiogrosso’s experience with respect to these

IPR2013-00545
Patent 6,594,346 B2

factors). Petitioner responds that Patent Owner’s definition of the level of ordinary skill in the art conflates a requirement for skill in the relevant technical art (“telecommunications systems [having] voice-to-text transcription”) with skill in one particular commercial sector that applies that technical art (telecommunications services for deaf or hard of hearing users). Pet. Opp. to Mot. to Exc. 1, 6-7.

Patent Owner’s arguments are unpersuasive at the outset because, to testify as an expert under FRE 702, a person need not be a person of ordinary skill in the art, but rather “qualified in the pertinent art.” *Sundance*, 550 F.3d at 1363-64; *SEB*, 594 F.3d at 1372-73; *Mytee*, 439 Fed. App’x at 886–87. Patent Owner’s arguments are also unpersuasive because they attempt to constrict the “pertinent art,” i.e., the pertinent technology, to a particular subset of individuals who use the pertinent technology, rather than the pertinent technology itself. *See* Pet. Opp. to Mot. to Exc. 4-5 (arguing that the problems in the pertinent art are not “uniquely related” to the deaf and hard-of-hearing).

We agree with Petitioner that the relevant field is telecommunication technologies. *See* Pet. Opp. to Mot. to Exc. 7 (“Mr. Occhiogrosso’s qualifications should be analyzed with respect to the pertinent art of telecommunication technologies in which an intermediary facilitates voice-to-text transcription.”). The ’346 patent states that the “present invention relates to the general field of telephone communications.” Ex. 1001, 1:16-17. Patent Owner correctly indicates that the ’346 patent focuses on a particular application of that technology: people who need assistance in using telecommunications devices. PO Mot. to Exc. Occhiogrosso 4 (citing

IPR2013-00545
Patent 6,594,346 B2

Ex. 1001, 1:16-20). That focus, however, is not sufficient to dismiss the express statement of the '346 patent that the “invention relates to the general field of telephone communications.” Ex. 1001, 1:16-17. The '346 patent also summarizes the invention as the use of a speech recognition computer program trained to the voice of the call assistant to translate promptly the words spoken by an intermediary call assistant into a “high speed digital communication message [that] is then transmitted electronically promptly by telephone to a visual display accessible to the” hearing-assisted user. *Id.* at 2:51-58.

Thus, we determine the pertinent art to be telecommunications systems, because any communications technology would be pertinent art to the '346 patent. Although assistive technology may be more pertinent, and assistive technology for the deaf and hearing impaired, using voice-to-text relays, may be most pertinent, anything in the telecommunications technology field would be pertinent to the inventor when considering the problem.

The qualifications of Mr. Occhiogrosso, as summarized in his curriculum vitae (Ex. 1020), qualify him to give expert testimony on the subject of telecommunication technologies. He possesses a Bachelor of Science in Electrical Engineering and a Master of Science in Electrical Engineering. Ex. 1020, 2. Mr. Occhiogrosso testifies that he has more than thirty years of experience in the field of telecommunications and information technology, and he has planned, designed, implemented, and managed large scale projects involving wired and wireless communication systems, including transmission of voice and data. Ex. 1019 ¶ 6; *see also* Ex. 1020,

IPR2013-00545
Patent 6,594,346 B2

2-6 (detailing Mr. Occhiogrosso's enterprise consulting engagements, research and development, and wireless experience).

Moreover, to the extent Mr. Occhiogrosso is more familiar with general telecommunications technology and less familiar with voice-to-text or its application to the deaf or hearing-impaired, or to the extent that Mr. Occhiogrosso's testimony is inconsistent or unsupported, we weigh Mr. Occhiogrosso's testimony accordingly, taking into account the extent of his expertise in these areas. *See, e.g., Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (holding the Board has discretion to give more weight to one item of evidence over another "unless no reasonable trier of fact could have done so"); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) ("[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.").

Patent Owner also contends that Mr. Occhiogrosso's testimony fails to identify the level of skill in the art in his declaration (Ex. 1019), fails to give any consideration to what one of ordinary skill in the art would have known or not known, is unsupported and unreliable, and does not consider secondary considerations. PO Mot. to Exc. Occhiogrosso 8; PO Resp. 7-9; PO Reply to Opp. to Mot. to Exc. 2-3. Petitioner counters that Mr. Occhiogrosso "consistently applied his definition of a [person of ordinary skill in the art] throughout his testimony" and, in a supplemental declaration, Mr. Occhiogrosso "made explicit the level of ordinary skill he applied" in Exhibit 1019. Pet. Opp. to Mot. to Exc. 15 (citing Ex. 1037 ¶ 12).

IPR2013-00545
Patent 6,594,346 B2

Patent Owner's argument goes more to the weight we should accord Mr. Occhiogrosso's testimony, rather than its admissibility. It is within our discretion to assign the appropriate weight to the testimony offered by Mr. Occhiogrosso. *See, e.g., Yorkey*, 601 F.3d at 1284. Moreover, Mr. Occhiogrosso provided a supplemental declaration identifying the level of skill in the art and confirming his opinion presented in the earlier declaration (Ex. 1019) in view of the level of skill in the art. *See* Ex. 1037 ¶¶ 12-17, 19. Mr. Occhiogrosso testimony also confirmed his legal understanding of obviousness, including secondary considerations. *See* Ex. 1037 ¶¶ 20-25.

Under the totality of these circumstances, we decline to exclude the testimony of Mr. Occhiogrosso. Accordingly, Patent Owner's Motion to Exclude Mr. Occhiogrosso's testimony (Paper 41) is *denied*.

E. Obviousness over Ryan and Alshawi

Petitioner asserts that claims 1 and 2 of the '346 patent are unpatentable under 35 U.S.C. § 103(a) for obviousness over Ryan and Alshawi. Pet. 52-57 (referring to Pet. 33-39, 50-52). Patent Owner challenges Petitioner's assertion. PO Resp. 18-47.

To support its contention that claims 1 and 2 would have been obvious over Ryan and Alshawi, Petitioner relies on analysis provided with respect to the references and declaration testimony by Mr. Occhiogrosso. Pet. 31-40, 50-57 (citing Ex. 1019). Patent Owner responds, relying on declaration testimony by Mr. Ludwick and others. PO Resp. 20-47 (citing Exs. 2001-2005, 2010). Having considered the parties' contentions and supporting

IPR2013-00545
 Patent 6,594,346 B2

evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 2 are unpatentable for obviousness over Ryan and Alshawi for the reasons set forth below.

1. Summary of Ryan

Ryan discloses a telecommunications relay system with a relay interface for communicating between a standard telephone set and a TDD for a hearing impaired person. Ex. 1005, Abstract. Figure 1 of Ryan is set forth below:

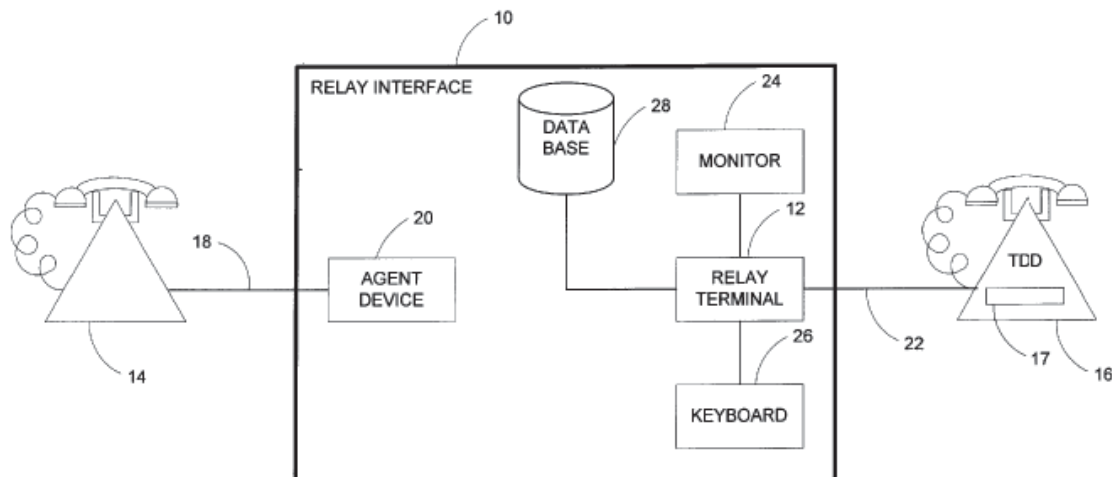


FIG. 1

Figure 1 is a diagram of the telecommunications relay system.

As shown in Figure 1, Ryan's telecommunications relay interface 10 includes operator/relay terminal 12 and couples standard telephone set 14 with TDD 16. Ex. 1005, 3:34-35, 43-51. An operator or relay agent typically is responsible for manipulating relay terminal 12 to relay messages between telephone 14 and TDD 16. Ryan indicates, however, that speech

IPR2013-00545
Patent 6,594,346 B2

recognition software could be used to automate the relay function so that an operator or relay agent would not be required. *Id.* at 4:19-24. Ryan specifically describes using speech recognition software at agent device 20 to interpret a voice message from a caller at telephone 14 and convert the message from a voice format to a data format. *Id.* at 4:24-27. Ryan further indicates:

If the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message.

Id. at 4:33-38.

2. Summary of Alshawi

Alshawi describes a videophone providing “speech-to-subtitles translation for communication between people speaking different languages.” Ex. 1010, 1:6-9; Title. To address the problem of “delay between one party speaking and the other party hearing the synthesized translation which can make communication awkward and unnatural” (*id.* at 1:31-33), Alshawi's system continuously displays a translation of each user's speech in text form on the other user's videophone screen. “At the same time, the original, untranslated speech is played over a speaker.” *Id.* at 1:49-52. Alshawi indicates “[h]earing the original speech can also reduce misunderstanding because emotional clues are available to the listener.” *Id.* at 2:1-3.

Figure 3 of Alshawi is set forth below:

IPR2013-00545
 Patent 6,594,346 B2

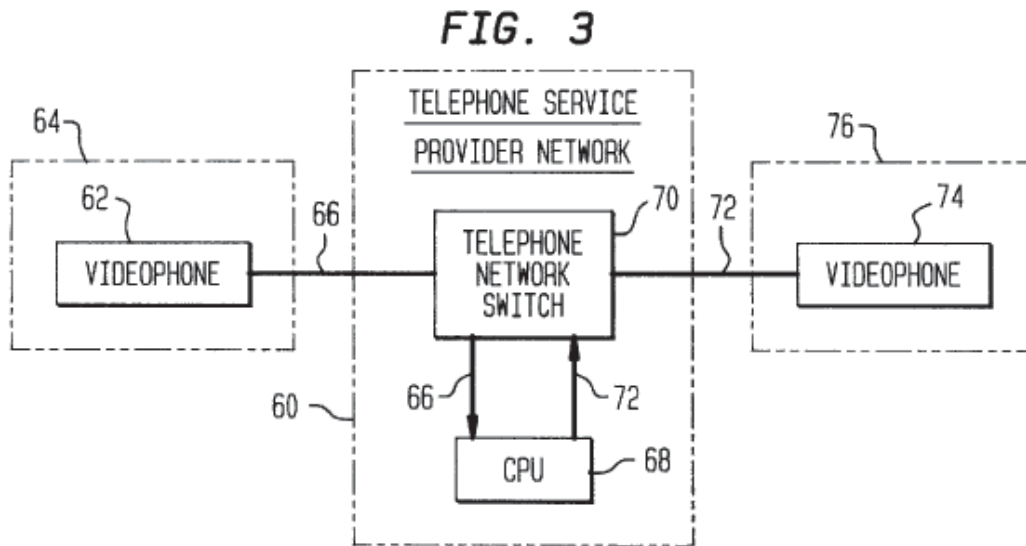


Figure 3 is a diagram illustrating subtitle generation being performed by a telephone service provider network.

Alshawi describes an embodiment, shown in Figure 3, in which continuous speech-to-subtitles translation is provided by a telephone service provider. *Id.* at 4:4-7. Videophone 62 outputs standard videophone signal 66, which is sent to telephone service provider network 60, which, in turn, generates translated subtitles corresponding to the original speech of the person using videophone 62. *Id.* at 3:58-65. Central processing unit (“CPU”) 68 at telephone service provider network 60 outputs signal 72, which consists of an audio signal containing the sending party’s original speech and a subtitled video portion. *Id.* at 3:65-4:1. Signal 72 is sent to videophone 74, where it can be viewed by the receiving party. *Id.* at 4:1-3.

3. Independent Claim 1

Petitioner has established that the combination of Ryan and Alshawi teaches or suggests each limitation of claim 1. We review each of

IPR2013-00545
Patent 6,594,346 B2

Petitioner's assertions and Patent Owner's arguments for each limitation of claim 1.

a. relay system "transmitting the voice of the hearing user when speaking to the ear of the call assistant"

Ryan teaches or suggests "operating a relay system using a call assistant to facilitate communication between a hearing user and an assisted user by telephone, the hearing user speaking words in voice." Ex. 1005, 3:34-35, 43-51; Fig. 1 (Ryan's telecommunications relay interface 10 includes operator/relay terminal 12 and couples standard telephone set 14 with TDD 16); *see also id.* at 1:53-67 (describing a relay agent receiving a message over a voice channel from a standard telephone and transforming the voice message to be transmitted to a TDD for an assisted user); Pet. 33, 54.

Ryan, in this description, also teaches or suggests "transmitting the voice of the hearing user when speaking to the ear of the call assistant," as recited in claim 1. Ex. 1005, 1:53-67 (describing a relay agent receiving a message over a voice channel from a standard telephone and transforming the voice message to be transmitted to a TDD for an assisted user).

b. "the call assistant speaking" and "digital computer" limitations

Ryan teaches or suggests "the call assistant speaking in voice the same words that the call assistant hears spoken by the hearing user into a microphone connected to a digital computer" and "digital computer using voice recognition computer software trained to the voice of the call assistant to translate the words of the voice spoken by the call

IPR2013-00545
Patent 6,594,346 B2

assistant into a digital text message stream containing the words spoken by the call assistant,” as recited in claim 1.

Ryan teaches or suggests “the call assistant speaking” and “digital computer” limitations in describing the use of speech recognition software at agent device 20 (1) to interpret a voice message from a caller at telephone 14 and convert the message from a voice format to a data format and (2) for improved accuracy of the relay service when the relay agent repeats the voice message from the caller and speech recognition software, designed to recognize the voice of a particular relay agent, is used for converting the relay agent’s voice message to a data message. *See* Ex. 1005, 4:24-27 (“[S]peech recognition software could be employed at device 20 to interpret a voice message from a caller at phone 14 and convert the message from a voice format to a data format.”); *id.* at 4:33-38 (“If the [voice recognition] software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent’s voice message into a data message.”); *see also* Pet. 34-36, 54-55 (Petitioner asserting the same).

We also credit the testimony of Petitioner’s declarant, Mr. Occhiogrosso, that “a microphone connected to a digital computer” is present necessarily in Ryan’s relay system to convert the relay agent’s voice message into a data message using speech recognition software. Ex. 1019 ¶ 27; *see* Pet. 34. Thus, we find that Ryan suggests the recited “microphone connected to a digital computer.”

IPR2013-00545
Patent 6,594,346 B2

Patent Owner argues that Ryan does not teach the recited digital computer. First, Patent Owner contends that Ryan does not teach the recited “voice recognition computer software trained to the voice of the call assistant.” PO Resp. 20-23. According to Patent Owner, Ryan’s software is not trained as required by Patent Owner’s interpretation of the required training. Rather, according to Patent Owner, Ryan discloses voice recognition software that is “designed,” which means the software is designed in advance of implementation at the source code level and, therefore, the software is not trained.

For the reasons noted previously, we do not agree the recited trained voice recognition software precludes training during software design, which Patent Owner acknowledges is disclosed by Ryan. PO Resp. 22 (“Ryan is disclosing software that has been construed to recognize the voice of particular relay agents.”). Thus, we do not agree with Patent Owner’s argument because it is not commensurate in scope with the claims.

Moreover, Patent Owner relies on Mr. Ludwick’s testimony asserting Ryan does not teach “voice recognition computer software trained to the voice of the call assistant.” PO Resp. 25-27 (citing Ex. 2001 ¶¶ 19-20). We do not find Mr. Ludwick’s testimony that Ryan’s voice recognition software is “designed to recognize the voice of particular relay agents” to be persuasive because Mr. Ludwick grounded his testimony in the state of the art in 1994, when the date of invention is 2001. *See* Ex. 2001 ¶ 19 (referring to the telecommunications relay service field in 1994), ¶ 20 (noting the needed technology “did not then exist”).

IPR2013-00545
Patent 6,594,346 B2

Second, Patent Owner, relying on Mr. Ludwick's testimony, contends that Ryan does not disclose the recited "voice recognition software trained to the voice of the call assistant," because Ryan's "voice recognition software is written specifically to recognize the voices of a collection or group of people, rather than a particular, individual call assistant." PO Resp. 23-24 (citing Ex. 2001 ¶ 21). For the reasons noted previously, we do not agree that the claims are limited to voice recognition software trained to one and only one call assistant. Thus, we do not agree with Patent Owner's argument because it is not commensurate in scope with the claims.

Moreover, we are not persuaded by Patent Owner that a person of ordinary skill in the art would interpret Ryan as only disclosing software written specifically for a group of people (PO Resp. 23-24). Patent Owner's argument is unpersuasive because it relies on the level of ordinary skill in the art as reflected in a prior art patent filed in 1994, when the invention date of the challenged claims is February 14, 2001. *See* PO Resp. 24 (citing Ex. 2008, U.S. Patent No. 5,553,119 ("McAllister") filed on July 7, 1994).

Third, Patent Owner argues that Ryan does not teach "translat[ing] the words . . . spoken by the call assistant into a digital text message stream containing the words spoken by the call assistant," as recited in claim 1. PO Resp. 24-32. According to Patent Owner, Ryan, at most, is ambiguous as to the disclosure of a call agent translating the words spoken in voice by the call assistant into a digital text stream. *Id.* at 25-26. Patent Owner contends, based on the goals of Ryan to correct errors before displaying words and the context of the passage, that Ryan discloses a relay agent using "revoicing" as

IPR2013-00545
Patent 6,594,346 B2

an error correction mechanism for individual, unrecognized letters of a word. PO Resp. 26-31.

We are not persuaded. Ryan’s technology is intended to “overcome[] the problem associated with existing telecommunications relay services by providing a system and method for correcting mistakes before the message is displayed at the end user’s TDD” (i.e., telecommunications device for the deaf). Ex. 1005, 2:35-38 (“Summary of the Invention”). In the above-quoted passage, Ryan describes ways to do so using speech recognition software. One way is automating the relay function so as to eliminate the need for a human operator. *Id.* at 4:19-24. To do so, Ryan describes using speech recognition software to convert the voice message from a caller to text “while providing an error correction feature for words not recognized by the software.” *Id.* at 4:24-28. Ryan further describes the error correction feature as having two forms—phonetic spelling of the unrecognized word by the speech recognition software or prompting the caller to spell the unrecognized word. *Id.* at 4:29-33. Ryan describes, in the passage, another way to improve the accuracy of a relay system before the text is displayed at the TDD—if the speech recognition software is designed specifically to recognize the voice of particular relay agents, a relay agent “listen[s] to the caller and repeat[s] the voice message into a terminal adapted to convert the agent’s voice message into a data message.” *Id.* at 4:33-38.

In contrast to Ryan’s description of the error correction by the *caller* spelling letters of an unrecognized word, Ryan unambiguously describes a *relay agent* repeating the voice message of the caller and having speech recognition software, designed specifically to recognize the voice of the

IPR2013-00545
Patent 6,594,346 B2

relay agent, convert the agent's voice message into a data message. Thus, we are not persuaded that Ryan is ambiguous as to its disclosure of translating the words spoken by the call assistant, and we are not persuaded that Ryan discloses only the translation of letters (rather than words).

Fourth, Patent Owner argues that Ryan must be read narrowly in view of the state of the art of speech recognition software used in telecommunications relay service in 1994. PO Resp. 32-35. Patent Owner's argument is unpersuasive because the state of the art of the relevant technology in 1994 has limited probative value. Rather, the state of the art of the relevant technology at the time of invention, which is February 14, 2001 for the reasons discussed previously, is of greater significance. *See* 35 U.S.C. § 103(a) ("A patent may not be obtained . . . if the differences between the subject matter sought to be patented 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.") (emphasis added). The '346 patent itself describes the state of voice recognition technology as being "capable of transcribing the words of the voice of the call assistant at the speed of a normal human communication" and identifies two commercially available software packages able to do that. Ex. 1001, 6:24-36.

For these reasons, we determine Ryan teaches or suggests a relay system that "transmit[s] the voice of the hearing user when speaking to the ear of the call assistant"; a relay system in which "the call assistant speak[s] in voice the same words that the call assistant hears spoken by the hearing

IPR2013-00545
Patent 6,594,346 B2

user into a microphone connected to a digital computer”; and the recited digital computer.

c. “transmitting” limitations and “displaying the digital text message to a captioned telephone device” limitation

For claim 1 as a whole, Petitioner relies on a relay service that combines Ryan’s relay service with the transmission of both voice and text as described in *Alshawi*. *See* Pet. 54 (“By combining the transmission of both voice and text as described in *Alshawi* with the relay service of *Ryan*, the relay service would improve clarity in communications for the hearing impaired.”). In addition to the limitations discussed above, claim 1 further requires transmitting to the assisted user (i) “the voice of the hearing user” and (ii) “both the digital text message stream and the voice of the hearing user by telephone connection.” Claim 1 also recites “displaying the digital text message stream to a captioned telephone display device within sight of the assisted person.”

Alshawi’s describes a continuous speech-to-subtitles translation service provided by a telephone service provider for videophones to facilitate communication between people speaking different languages. Ex. 1010, 1:6-9, 3:54-4:7. *Alshawi* describes a videophone sending a standard videophone signal to telephone service provider network 60, which, in turn, generates translated subtitles corresponding to the original speech of the person using videophone. *Id.* at 3:58-65. The signal sent to the receiving videophone consists of an audio portion, which contains the sending party’s original speech, and a subtitled video portion. *Id.* at 3:54-4:3. The translated text can be viewed by the receiving party. *Id.* As such, *Alshawi*

IPR2013-00545
Patent 6,594,346 B2

describes transmitting both the translated text and the audio of the sending party's original speech to a videophone, where the transcribed text is displayed.

Petitioner's proposed combination, which combines Ryan's relay service with the transmission of both voice and text as described in Alshawi (Pet. 54), teaches or suggests the required transmitting and displaying limitations recited in claim 1. Alshawi's signal sent from the service provider includes the original speech of the person, and the translated text is sent to a videophone where the text is displayed to the user being assisted with language translation. This teaches or suggests "transmitting both the digital text message stream and the voice of the hearing user by telephone connection to the assisted user" and "transmitting the voice of the hearing user to the assisted user," as recited in claim 1. Further, Alshawi describes a videophone that transmits and receives voice signals, receives text information, and displays text to an assisted user—a captioned telephone display device.

Patent Owner argues that Ryan alone does not disclose the transmitting or displaying limitations (PO Resp. 24-36) and argues that Alshawi alone does not disclose the transmitting or displaying limitations (PO Resp. 35-38). We are not persuaded that Ryan does not teach or suggest the displaying limitation for the reasons discussed previously.

Moreover, the pertinent question is whether the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art in view of the combined references, not whether the references in the asserted combination individually teach the subject matter of claims 1 and 2.

IPR2013-00545
Patent 6,594,346 B2

35 U.S.C. § 103(a); *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“the test [for obviousness] is what the combined teachings of the references would have suggested to those of ordinary skill in the art”). Thus, we find unpersuasive Patent Owner’s arguments that amount to attacks on Ryan and Alshawi individually, without sufficient consideration of the combination of Ryan and Alshawi.

Further, Patent Owner argues that Alshawi does not disclose the digital text test message stream because the words are translated and, therefore, are not the “same words that the call assistant hears spoken by the call assistant.” PO Resp. 37-38. We find this unpersuasive because Petitioner’s combination relies on Ryan as teaching or suggesting “the call assistant speaking in voice” limitation. Pet. 54.

Having reviewed the papers submitted by the parties and the evidence cited therein, we determine that Petitioner has shown by a preponderance of the evidence that the subject matter of claim 1 of the ’346 patent would have been obvious to a person of ordinary skill in the art in view of the teachings of Ryan and Alshawi.

4. *Independent Claim 2*

Petitioner’s treatment of independent claim 2 is similar substantially to its treatment of independent claim 1. *Compare* Pet. 33-37 (indicating portions of Ryan that teach or suggest claim 1) *with id.* at 37-40 (indicating portions of Ryan that teach or suggest claim 2); *compare id.* at 50-51 (indicating portions of Alshawi that teach or suggest claim 1) *with id.* at 52 (indicating portions of Alshawi that teach or suggest claim 2).

IPR2013-00545
Patent 6,594,346 B2

Patent Owner does not set forth separate arguments for claim 2. PO Resp. 20-37 (arguing the combination of Ryan and Alshawi fails to disclose all of the elements of claims 1 and 2). Having reviewed the papers submitted by the parties and the evidence cited therein, we determine that Petitioner has shown, by a preponderance of the evidence, that the subject matter of claim 2 of the '346 patent would have been obvious to a person of ordinary skill in the art in view of the teachings of Ryan and Alshawi.

5. Reason to Combine Ryan and Alshawi

Petitioner, relying on testimony of its declarant, Mr. Occhiogrosso, contends that it would have been obvious to combine “the transmission of both voice and text as described in *Alshawi* with the relay service of *Ryan* [to] improve clarity in communications for the hearing impaired.” Pet. 54 (citing Ex. 1019 ¶ 43-44). According to Mr. Occhiogrosso, Ryan recognized that “the accuracy of the relay service” would be improved by having the relay agent repeat the voice message of the caller and use speech recognition software to convert the caller’s words to a data message to send to the assisted caller. Ex. 1019 ¶ 43 (citing Ex. 1005, 4:33-38); Pet. 53. Mr. Occhiogrosso further explains that, like Ryan, Alshawi “was also concerned with accuracy in communication, and recognized that misunderstandings could be reduced by providing both voice and text to a caller.” Ex. 1019 ¶ 43 (citing Ex. 1010, 2:1-10); Pet. 53. Thus, to improve clarity in communications for the hearing impaired, a person of ordinary skill in the art would combine the relay services of Ryan with the transmission of both voice and text in Alshawi to provide both voice of the

IPR2013-00545
Patent 6,594,346 B2

hearing user and text of the hearing user's words to the hearing impaired user of Ryan's relay. Ex. 1019 ¶¶ 43-44; Pet. 53-54.

Patent Owner argues there is insufficient reason to combine Ryan and Alshawi. First, Patent Owner contends that a person of skill in the art "would have no incentive to incorporate voice and text transmission from Alshawi since the system of Ryan is incompatible with voice and text transmission." PO Resp. 39. We find unpersuasive Patent Owner's arguments that seem to require bodily incorporation of Alshawi's parts into Ryan's system as of 1994 and 1995. PO Resp. 40-41. A determination of obviousness is based not on bodily incorporation of parts from one disclosed system into another, but what the combined teachings would have suggested to one with ordinary skill in the art. *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012); *Keller*, 642 F.2d at 425.

Moreover, the relevant date is not the earliest effective filing date of Ryan (1994) or Alshawi (1995). Rather, the relevant date is the date of the invention of the '346 patent, February 2001. *See* 35 U.S.C. § 103(a) ("A patent may not be obtained . . . if the differences between the subject matter sought to be patented 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.") (emphasis added).

Further, we are not persuaded by Patent Owner's assertion that a person of ordinary skill would not combine Alshawi's video call with Ryan's relay system because video call "users could simply sign, rather than speak, which would make transcription of voice unnecessary." PO Resp. 42

IPR2013-00545
Patent 6,594,346 B2

(citing Ex. 2001 ¶ 35). We credit Mr. Occhiogrosso's explanation that improved accuracy would result by providing both voice and text (Ex. 1019 ¶ 44). The general principle of Mr. Occhiogrosso's testimony is additional channels of communication improve communication. This undercuts Mr. Ludwick's position that video call "users could simply sign, rather than speak, [in a] video relay service making transcription of voice unnecessary" (Ex. 1019 ¶ 44). It is within our discretion to assign the appropriate weight to the testimony offered by Mr. Occhiogrosso and Mr. Ludwick. *See, e.g., Yorkey*, 601 F.3d at 1284.

Second, Patent Owner argues Alshawi and Ryan each teach away from the proposed combination. PO Resp. 42-44. According to Patent Owner, Alshawi emphasizes that a voice signal and translated text must be presented simultaneously and continuously. PO Resp. 42-43. As such, Ryan's error correction techniques would delay the presentation of text, which "would result in precisely the sort of awkward and unnatural experience that Alshawi teaches against." PO Resp. 43.

We do not agree with Patent Owner that Alshawi teaches away from the claimed invention. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (prior art does not teach away from claimed subject matter merely by disclosing a different solution to a similar problem unless the prior art also criticizes, discredits, or otherwise discourages the solution claimed). Rather, as Petitioner notes (Reply 11), a person of ordinary skill in the art need not include the error correction of Ryan in the combination because the claims do not require error correction.

IPR2013-00545
Patent 6,594,346 B2

For a similar reason, we do not agree with Patent Owner’s argument (PO Resp. 43-44) that, because Ryan “teaches the desirability of *delaying* transmission of text until the text has been checked and corrected,” Ryan teaches away from the claimed invention. The combination need not include Ryan’s error correction. Accordingly, Ryan does not teach away from the claimed invention.

Patent Owner then argues that the proposed modification would change the principle of operation of Ryan. PO Resp. 44-47. We disagree because we credit the testimony of Mr. Occhiogrosso that the principle of operation of the portion of Ryan used in the combination is having a relay agent repeat a hearing user’s words to provide text to an assisted user and that principle of operation is unchanged in the combination. *See* Ex. 1037 ¶ 64; Reply 12. It is within our discretion to assign the appropriate weight to the testimony offered by Mr. Occhiogrosso. *See, e.g., Yorkey*, 601 F.3d at 1284.

In view of the foregoing, we are persuaded that Petitioner, with support of its declarant, has articulated a sufficient reason to support a conclusion of obviousness in view of Petitioner’s combination of Ryan and Alshawi. *See KSR*, 550 U.S. at 418 (“[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

6. *Secondary Considerations*

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of

IPR2013-00545
Patent 6,594,346 B2

nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

Notwithstanding what the teachings of the prior art would have suggested to one with ordinary skill in the art at the time of the '346 patent's invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one with ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the following: long-felt but unsolved need, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17; *Leapfrog Enters.*, 485 F.3d at 1162.

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). Thus, to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC*, 57 F.3d at 1580. “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the Patent Owner. *Id.*; *see Paulsen*, 30 F.3d at 1482.

Patent Owner alleges “substantial praise for the inventions claimed in [Patent Owner’s] patents, including the '346 Patent, the long-felt but unresolved need of the deaf and hard of hearing community, the commercial

IPR2013-00545
Patent 6,594,346 B2

success of the products and services embodying the invention, and the failure of others to provide a relay service or other solution that provided the benefits of the claimed inventions.” PO Resp. 49-51. For support, Patent Owner proffers declarations by Ms. Brenda Battat (Ex. 2004) and Ms. Constance Phelps (Ex. 2005) describing general innovations of Patent Owner’s CapTel Service and its CapTel phone and describing their benefits to the deaf and hard of hearing community. PO Resp. 50-51; *see* Ex. 2004 ¶¶ 18-19, 25-41.

In an attempt to establish the requisite nexus, Patent Owner relies on a declaration of Mr. Ludwick (Ex. 2002) asserting that it “explain[s], on a feature by feature basis, the nexus between those secondary considerations and the claimed design” and “illustrates, in chart form, that the CapTel system and various models of CapTel phones embody the claims of the present invention.” PO Resp. 51.

Patent Owner’s Response contains no substantive arguments. *Id.* Instead, Patent Owner merely lists various common forms of secondary considerations evidence, without exposition. This does not provide sufficient analysis for us to determine whether Patent Owner has provided adequate evidence of secondary considerations and a nexus between any such evidence and the merits of the claimed invention. Thus, Patent Owner’s broad contentions regarding secondary considerations in its Patent Owner Response do not demonstrate nonobviousness.

Moreover, Patent Owner’s declarations fail to establish a nexus between the merits of the claimed invention and the evidence of secondary considerations. To show a nexus, Patent Owner relies on Mr. Ludwick’s

IPR2013-00545
Patent 6,594,346 B2

declaration, which describes his visit to CapTel, Inc.'s relay center in Madison, Wisconsin. Ex. 2002 ¶ 47. Mr. Ludwick's chart presents his conclusions based on personal observation that the CapTel Service meets each claim limitation of the '346 patent. Ex. 2002 ¶ 48 (pages 28-30). For example, regarding "a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," recited in claims 1 and 2, Mr. Ludwick asserts:

I personally observed that the CapTel Service meets this claim element. I further confirmed this from my own knowledge of CapTel Service. This feature of the CapTel Service relay is present when the Service is used with each of the CapTel Phones and has always been included as part of the CapTel Service.

Ex. 2002 ¶ 48 (page 28).

Because Mr. Ludwick's conclusions are based on personal observations, without sufficient supporting facts or data, his testimony has little probative value. *See In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d at 1368 ("[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations."); *see also* Fed. R. Evid. 702 (providing one may testify in the form of an opinion if the testimony is based on sufficient facts or data). As such, Mr. Ludwick's conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention,

IPR2013-00545
Patent 6,594,346 B2

and so do not establish the requisite nexus between the merits of the claimed invention and the evidence of secondary considerations.

Accordingly, Patent Owner fails to provide sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner's evidence of obviousness against Patent Owner's asserted objective evidence of nonobviousness, we determine that a preponderance of the evidence supports Petitioner's position that claims 1 and 2 would have been obvious over Ryan and Alshawi.

III. CONCLUSION

Petitioner has proven by a preponderance of the evidence that claims 1 and 2 of the '346 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Ryan and Alshawi.

Patent Owner's Motion to Exclude Evidence (Paper 41) is *denied*.

IV. ORDER

Accordingly, it is hereby:

ORDERED that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 2 of U.S. Patent No. 6,594,346 B2 are unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude Evidence (Paper 41) is denied; and

IPR2013-00545
Patent 6,594,346 B2

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

IPR2013-00545
Patent 6,594,346 B2

PETITIONER:

Brian W. Oaks
Bryant C. Boren Jr.
Harper S. Batts
Adam F. Smoot
Joseph Gray
BAKER BOTTS L.L.P.
brian.oaks@bakerbotts.com
bryant.c.boren@bakerbotts.com
harper.batts@bakerbotts.com
adam.smoot@bakerbotts.com
joseph.gray@bakerbotts.com

PATENT OWNER:

Michael Jaskolski
Martha Snyder
Nikia L. Gray
Michael J. Curley
QUARLES & BRADY LLP
michael.jaskolski@quarles.com
martha.snyder@quarles.com
nikia.gray@quarles.com
Michael.curley@quarles.com

Trials@uspto.gov
Tel: 571-272-7822

Paper 67
Entered: December 1, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, LLC,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Case IPR2013-00545
Patent 6,594,346 B2

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

BENOIT, *Administrative Patent Judge*.

DECISION
Denying Patent Owner's Request for Rehearing
37 C.F.R. § 42.71

IPR2013-00545
Patent 6,594,346 B2

INTRODUCTION

CaptionCall, LLC (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1 and 2 of U.S. Patent No. 6,594,346 B2 (Ex. 1001, “the ’346 patent”). Paper 1 (“Pet.” or “Petition”). We instituted an *inter partes* review for claims 1 and 2. Paper 6. In our Final Written Decision, we determined that Petitioner had shown by a preponderance of the evidence that claims 1 and 2 were unpatentable. Paper 65 (“Final Dec.” or “Final Decision”). Patent Owner, Ultratec, Inc., requests a rehearing of the Final Decision by an expanded panel. Paper 66 (“Req.” or “Request”).

Having considered Patent Owner’s Request, we decline to modify our Final Decision and deny the Request for Rehearing.

ANALYSIS

A request for rehearing must identify specifically all matters the party believes we misapprehended or overlooked, and the place where each matter was addressed previously in a motion, an opposition, or a reply. 37 C.F.R. § 42.71(d). Additionally, Patent Owner, as the party challenging the Final Decision, has the burden of showing the decision should be modified. *Id.*

We first address Patent Owner’s allegations of matters that we misapprehended or overlooked (Req. 1, 4–11). We then address Patent Owner’s allegations of improper panel composition (*id.* at 1–4).

Matters Allegedly Misapprehended or Overlooked

Patent Owner alleges we misapprehended or overlooked matters involving evidence of secondary considerations, the law concerning obviousness, and claim construction. We address each issue in turn.

IPR2013-00545
Patent 6,594,346 B2

Evidence of Secondary Considerations

Patent Owner alleges that we improperly made a determination of obviousness before separately analyzing Patent Owner's evidence of secondary considerations. Req. 4–5. We disagree. Rather, in Section II.D of our Final Decision, we determined the scope and content of the asserted prior art (Final Dec. 20–22); discussed the claimed subject matter relative to the asserted prior art, which included identifying differences between the claimed subject matter and the prior art in the context of the ordinary level of skill in the art (Final Dec. 22–31); determined Petitioner, with support of its declarant, had articulated a sufficient reason to support a conclusion of obviousness (Final Dec. 32–35); and analyzed Patent Owner's secondary considerations of nonobviousness (Final Dec. 35–39). *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Only after that twenty-page discussion in Section II.D did we discuss the ultimate conclusion of obviousness of the claimed subject matter. Final Dec. 39.

Unlike the International Trade Commission in *Apple Inc. v. International Trade Commission*, 725 F.3d 1356, 1365 (Fed. Cir. 2013), cited by Patent Owner in its Request, we considered evidence relating to the *Graham* factors—including objective evidence of secondary considerations presented by Patent Owner—before determining the ultimate issue of obviousness. *Compare* Req. 4–5 *with* Final Dec. 20–39; *see Apple*, 725 F.3d at 1365 (“The ITC, however, never mentioned, much less weighed as part of the obviousness analysis, the secondary consideration evidence . . . presented.”). As noted in our Final Decision, we determined that:

IPR2013-00545
Patent 6,594,346 B2

Patent Owner fails to provide sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner’s evidence of obviousness against Patent Owner’s asserted objective evidence of nonobviousness, we determine that a preponderance of the evidence supports Petitioner’s position that claims 1 and 2 would have been obvious over Ryan and Alshawi.

Final Dec. 39. Thus, we recognized that the “ultimate conclusion of obviousness is a legal conclusion to be reached after weighing all the evidence on both sides.” *Apple*, 725 F.3d at 1365.

Patent Owner further contends we refused to consider Patent Owner’s secondary considerations evidence. Req. 5. This is incorrect. We considered the arguments and evidence presented in Patent Owner’s Response. Final Dec. 36–37. We concluded Patent Owner did “not provide sufficient analysis for us to determine whether Patent Owner has provided adequate evidence of secondary considerations and a nexus between any such evidence and the merits of the claimed invention.” *Id.*

In its Request, Patent Owner seems to suggest that we should have reviewed and analyzed the entirety of each of three declarations submitted by Patent Owner in support of its secondary considerations contention (Exs. 2003, 2004, and 2005). Req. 5. This also is incorrect because, in its Patent Owner Response, Patent Owner merely cited each declaration in its entirety without citing with particularity portions of these declarations. PO Resp. 49 (citing “declarations by Brenda Battat (Ex. 2004) and Constance Phelps (Ex. 2005)” and “declaration of Paul Ludwick (Ex. 2003)”).

We will not scour the 143 pages of declaration evidence submitted by Patent Owner and generally serve as an advocate for Patent Owner by

IPR2013-00545
Patent 6,594,346 B2

finding evidence of secondary considerations in the voluminous exhibits submitted. *Cf. DeSilva v DiLeonardi*, 181 F.3d 865, 866–67 (7th Cir. 1999) (“A brief must make all arguments accessible to the judges, rather than ask them to play archaeologist with the record.”); *Ernst Haas Studio, Inc. v. Palm Press, Inc.*, 164 F.3d 110, 111–12 (2d Cir. 1999) (“Appellant’s Brief is at best an invitation to the court to scour the record, research any legal theory that comes to mind, and serve generally as an advocate for appellant. We decline the invitation.”).

Testimony of Patent Owner’s Declarant

Patent Owner alleges we improperly disregarded Patent Owner’s declarant’s personal observations that secondary considerations of nonobviousness were commensurate in scope with the claimed subject matter. Req. 6–7. Patent Owner asserts that its declarant’s testimony consisted of personal observations and not opinion testimony. Req. 6.

As noted in our Final Decision, to show the requisite nexus, Patent Owner relied on its declarant’s testimony describing his visit to CapTel, Inc.’s relay center in Madison, Wisconsin. Final Dec. 37–38 (citing Ex. 2002 ¶ 47). We found the “conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention, and so do not establish the requisite nexus between the merits of the claimed invention and the evidence of secondary considerations.” Final Dec. 38–39.

We did not disregard this testimony; rather, we found it insufficient. To illustrate this insufficiency, in our Final Decision, we cited an example of the testimony provided for the disputed limitation “a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call

IPR2013-00545
Patent 6,594,346 B2

assistant to translate the words spoken in voice by the call assistant into a digital text stream”:

I personally observed that the CapTel Service meets this claim element. I further confirmed this from my own knowledge of CapTel Service. This feature of the CapTel Service relay is present when the Service is used with each of the CapTel Phones and has always been included as part of the CapTel Service.

Final Dec. 38 (citing Ex. 2002 ¶ 48 (page 28)). We found that, because the declarant’s conclusions were based on personal observations, without sufficient supporting facts or data, his testimony provided little probative value. Final Dec. 38.

We reject Patent Owner’s assertion that, because there is no testimony to the contrary, we must accept its declarant’s “personal observations” on the claimed features being present in the system provided by CapTel Service and thereby conclude a nexus exists. Req. 6–7. We cited proper authority in the Final Decision for why we gave little probative value to this testimony of Patent Owner’s declarant—such “conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention.” Final Dec. 38 (citing *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”)). In contrast to the case cited by Patent Owner, *Tudor v. Department of Treasury*, 639 F.3d 1362, 1365 (Fed. Cir. 2011), which involves testimony concerning a factual issue as to whether approval authority for referring investigations for prosecution was given, here we are weighing the conclusion of Patent Owner’s declarant that “the CapTel Service meets this claim element,”

IPR2013-00545
Patent 6,594,346 B2

without sufficient supporting facts or data as to why the CapTel Service meets the limitations in the challenged claims.

In re Mouttet

Patent Owner contends that we misapprehended *In re Mouttet*, 686 F.3d 1322 (Fed. Cir. 2012) in finding a motivation to combine Ryan¹ and Alshawi² and, therefore, erred in determining that the challenged claims would have been obvious. Req. 7–8 (citing Final Dec. 33). The Final Decision cited *Mouttet* for the proposition that a “determination of obviousness is not based on bodily incorporation of parts from one disclosed system into another, but what the combined teachings would have suggested to one with one of ordinary skill in the art.” Final Dec. 33 (citing *Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012); *In re Keller*, 642 F.2d 412, 425 (CCPA 1981)). We disagree that we misapprehended *Mouttet*, which states:

It is well-established that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements. *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc) (“*Etter*’s assertions that Azure cannot be incorporated in Ambrosio are basically irrelevant, the criterion being not whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole.”); *In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983) (“[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review.”); *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily

¹ U.S. Patent No. 5,809,112 (Ex. 1004).

² U.S. Patent No. 5,815,196 (Ex. 1010).

IPR2013-00545
Patent 6,594,346 B2

incorporated into the structure of the primary reference....”).

In re Mouttet, 686 F.3d at 1332. Thus, we are not persuaded that we misapprehended *Mouttet*. Nor did we “disregard[] Patent Owner’s counter-evidence that there would be disincentives for a [person of ordinary skill in the art] to combine *Ryan* and *Alshawi*,” “given that *Alshawi*’s features are incompatible with the TDD devices with which *Ryan* is used.” Req. 8. Rather, in finding a sufficient reason one of ordinary skill in the art would combine the references, we considered the reasons identified by the Petition, weighed the testimony of the respective declarants, and considered Patent Owner’s arguments. Final Dec. 32–35.

Claim Construction

Because the parties articulated different views on how “trained to the voice of the call assistant” should be interpreted relative to asserted prior art, we analyzed Patent Owner’s implied constructions of the term and Patent Owner’s declarant’s testimony concerning the same. Final Dec. 8–10. In its Request for Rehearing, Patent Owner argues that we “misapprehended claim construction law” in determining software “trained to the voice of the call assistant” was not limited to training to the voice of one and only one particular call assistant and did not preclude voice recognition software that is designed or built in advance of implementation at the source code level to the voice of a call assistant. Req. 9–11.

First, Patent Owner contends that we erroneously relied on the Specification’s disclosure of “voice pattern.” Req. 9–11. We disagree that our reliance on the Specification’s “Brief Summary of the Invention,” which indicates “a speech recognition computer program which has been trained to

IPR2013-00545
Patent 6,594,346 B2

the voice *pattern* of the call assistant,” was improper. *See* Final Dec. 8 (quoting Ex. 1001, 2:51–54).

Rather, in our Final Decision, we contrasted the Specification’s use of “voice *pattern* of the call assistant” in its “Brief Summary of the Invention” with its use of “a voice recognition software package which is specifically trained to the voice of that *particular* call assistant” in the context of a particular embodiment of the invention shown in Figure 1. Final Dec. 8–9 (quoting Ex. 1001, 2:51–54, 6:21–24).

Based on the evidence in the Specification (including the Specification’s disclosure of “a voice pattern”), we determined that the Specification did not indicate expressly that the voice recognition software is trained to the voice of only that particular call assistant or otherwise indicate that the voice recognition software is trained for the voice of only one call assistant. Final Dec. 8. We concluded that “we will not limit ‘trained to the voice of the call assistant’ to require training to the voice of only one particular call assistant, because the claim language encompasses the invention as disclosed in the Specification—software trained to a voice *pattern* of a call assistant.” *Id.* at 9 (citing Ex. 1001, 2:41–49 (“Summary of the Invention”)).

We turn next to Patent Owner’s argument, in its Request for Rehearing, that we erred in concluding that “trained to the voice of the call assistant” does not include a temporal constraint that precludes voice recognition software that is designed or built in advance of implementation at the source code level to the voice pattern of a call assistant. Req. 11 (citing Final Dec. 7). According to Patent Owner, it did not have an

IPR2013-00545
Patent 6,594,346 B2

opportunity to address this issue because it was raised after briefing had concluded. Req. 11.

On the contrary, Patent Owner disputed during the *inter partes* review that Ryan disclosed “software trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in independent claim 1. Final Dec. 24–25 (citing Pet. 34–36, 54–55 and PO Resp. 20–23). As noted in our Final Decision, Patent Owner argued in its Patent Owner Response that Ryan does not disclose the recited “voice recognition software trained to the voice of the call assistant” because Ryan discloses voice recognition software that is “designed.” Final Dec. 25 (citing PO Resp. 20–23). More specifically, according to Patent Owner, Ryan discloses software that is designed in advance of implementation at the source code level and, therefore, the software is not trained to the voice of a call assistant. *Id.* As such, Patent Owner initially raised in its Patent Owner Response the issue whether “trained to the voice of the call assistant” encompasses software designed in advance of implementation at the source code level. Therefore, we do not agree with Patent Owner that it did not have an opportunity to address this issue, which Patent Owner first raised itself.

Along these lines, Patent Owner also asserts in its Request for Rehearing that we overlooked an alleged admission at the Hearing by Petitioner that the claim language inherently includes a temporal constraint that precludes training when the software is designed in advance of implementation at the source code level. Req. 11 (citing Paper 64 (Hearing Transcript), 17:3–5). We are not persuaded that we did so. Rather, we

IPR2013-00545
Patent 6,594,346 B2

considered Petitioner’s statement at the Hearing in light of the evidence of record.

In our Final Decision, we determined that the Specification discloses that the voice recognition software package is trained but does not indicate when or how the training occurs. Final Dec. 8 (citing Ex. 1001, 2:51–54, 6:21–24). We rejected Patent Owner’s argument, relying on its declarant, that software “designed” is not software that is “trained to recognize individual voices” because we found insufficient support for Patent Owner’s contention. Final Dec. 8 (citing PO Resp. 21). As we explained in our Final Decision, Patent Owner’s declarant testified that a person of ordinary skill in the art would not have understood “trained” software to include “designed” software because technology to train software to recognize individual voices did not exist in 1994 and was not used in telecommunications relay service at that time. Final Dec. 25 (citing PO Resp. 25–27; Ex. 2001 ¶¶ 19–20). We weighed this testimony, which relied on capabilities of technology available in 1994, and concluded this testimony had little probative value of the understanding of one of ordinary skill in the art at the time of invention because the year of invention was 2001. Final Dec. 25. According to the challenged patent, commercial voice recognition software that is specifically trained to the voice of a particular call assistant was made “recently available.” Ex. 1001, 6:20–36. Thus, the understanding of one of ordinary skill as of 2001 was crucial given the shift in voice recognition technology after 1994, and Patent Owner’s declarant’s testimony was only reflective of the understanding prior to this shift.

Thus, we do not agree with Patent Owner that we erred by not considering Petitioner’s purported “admission” made at the Hearing. Rather,

IPR2013-00545
Patent 6,594,346 B2

we considered Petitioner’s statement in determining that Ryan’s description of benefits provided by voice recognition software that “is specifically designed to recognize the voice of particular relay agents” (Ex. 1005, 4:33–38) disclosed the trained software recited in claim 1 of the ’346 patent. *See* Final Dec. 23–29.

For the reasons given, we are not persuaded that we misapprehended claim construction law or that Patent Owner was not provided with an opportunity to address claim construction of “trained to the voice of the call assistant.”

Conclusion

Having reviewed Petitioner’s Request, we are not persuaded we misapprehended or overlooked any matter.

Alleged Panel Composition Errors

Patent Owner requests rehearing before an expanded panel and additionally asserts we exceeded our authority by issuing a Final Written Decision that did not include a judge that was on the panel of administrative patent judges who decided to institute the review. Req. 1–4. Panel composition for an *inter partes* review is specified in 35 U.S.C. § 6(c), which states “[e]ach . . . inter partes review shall be heard by at least 3 members of the Patent Trial and Appeal Board, who shall be designated by the Director.” The Director’s authority under 35 U.S.C. § 6 to designate panels has been delegated to the Chief Judge. *See* Patent Trial and Appeal Board Standard Operating Procedure 1 (Rev. 14) (May 8, 2015) (“PTAB SOP 1”).

As acknowledged by Patent Owner (Req. 2), the Final Decision was decided by three administrative patent judges, who are members of the

IPR2013-00545
Patent 6,594,346 B2

Board. *See* 35 U.S.C. § 6(a) (indicating that administrative patent judges, along with various members of the United States Patent and Trademark Office, constitute the Patent Trial and Appeal Board). The three administrative patent judges were designated by the Chief Judge according to PTAB SOP 1, titled “Assignment of Judges to Merits Panels, Interlocutory Panels, and Expanded Panels.” The Board, therefore, complied with the statutory requirements for panel composition. Accordingly, we did not issue the Final Decision with less than a “full panel,” as Patent Owner contends.

Moreover, the Chief Judge has discretion to designate judges to decide *inter partes* reviews. *See* PTAB SOP 1 at 2 (§ II.D) (“In general, the Chief Judge will designate a judge or judges, as appropriate, for all matters for AIA reviews.”); *see also AOL Inc. v. Coho Licensing LLC*, Case IPR2014-00771, slip op. at 2 (PTAB Mar. 24, 2015) (Paper 12) (informative) (setting forth that the designation of panel members is within the sole authority of the Chief Judge, as delegated by the Director). Patent Owner’s Request, therefore, does not show the composition of the panel that issued the Final Decision was arbitrary, capricious, or an abuse of discretion by the Board.

Patent Owner suggests an expanded panel is warranted to decide the Request in view of the panel composition and various allegations that we misapprehended the law. Req. 1. For the reasons given, Patent Owner does not persuade us that we misapprehended the law or the panel of three judges was deficient. Further, the Board’s procedures provide examples of reasons for expanding a panel, none of which apply here. PTAB SOP 1 at 3 (§ III.A). For example, an expanded panel may be appropriate when

IPR2013-00545
Patent 6,594,346 B2

“serious questions have been raised about the continuing viability of an apparently applicable precedential decision of the Board, or a panel of the Board renders a decision that conflicts with a precedential decision of the Board or an authoritative decision of the Board’s reviewing courts.” *Id.* Patent Owner’s Request does not show a conflict or other reason that weighs in favor of panel expansion. Even so, the panel informed the Chief Judge, who has authority to expand a panel, of Patent Owner’s request, and the Chief Judge declined to expand the panel. *See* PTAB SOP 1 at 4 (§ III.B). (“The Chief Judge will determine when an expanded panel is to be designated.”); *see also Apple Inc. v. Rensselaer Polytechnic Inst.*, Case IPR2014-00319, slip op. at 2 n.1 (PTAB Dec. 12, 2014) (Paper 20) (indicating only the Chief Judge, acting on behalf of the Director, may act to expand a panel and panels do not authorize panel expansion).

ORDER

It is hereby ORDERED that Petitioner’s Request for Rehearing is *denied*.

IPR2013-00545
Patent 6,594,346 B2

PETITIONER:

Brian W. Oaks
Bryant C. Boren Jr.
Harper S. Batts
Adam F. Smoot
Joseph Gray
BAKER BOTTS L.L.P.
brian.oaks@bakerbotts.com
bryant.c.boren@bakerbotts.com
harper.batts@bakerbotts.com
adam.smoot@bakerbotts.com
joseph.gray@bakerbotts.com

PATENT OWNER:

Michael Jaskolski
Martha Snyder
Nikia L. Gray
Michael J. Curley
QUARLES & BRADY LLP
michael.jaskolski@quarles.com
martha.snyder@quarles.com
nikia.gray@quarles.com
Michael.curley@quarles.com