

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,
Petitioner,

v.

ZILKR CLOUD TECHNOLOGIES, LLC,
Patent Owner.

IPR2023-00553
Patent 9,210,254 B2

Before KRISTEN L. DROESCH, KEVIN C. TROCK, and
MICHAEL T. CYGAN, *Administrative Patent Judges*.

TROCK, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Cisco Systems, Inc. (“Petitioner”) filed a Petition, Paper 2 (“Pet.” or “Petition”), to institute an *inter partes* review of claims 1, 2, 6–8, and 12–14 (the “challenged claims”) of U.S. Patent No. 9,210,254 B2 (Ex. 1001, “the ’254 patent”). Zilkr Cloud Technologies, LLC (“Patent Owner”) timely filed a Preliminary Response, Paper 7 (“Prelim. Resp.”).

An *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Upon consideration of the Petition, the Preliminary Response, and the evidence of record, we determine that Petitioner has shown a reasonable likelihood that it would prevail in showing the unpatentability of at least one of the challenged claims. Accordingly, we institute an *inter partes* review.

II. BACKGROUND

A. Real Party in Interest

Petitioner identifies itself as the real party in interest. Pet. 82. Patent Owner identifies itself as the real party in interest. Paper 3, 1.

B. Related Proceedings

According to the parties, the ’254 patent is or was the subject of the following actions: *Zilkr Cloud Technologies, LLC v. Cisco Systems, Inc.*, No. 2-22-cv-00166 (E.D. Tex.) filed May 20, 2022; *Zilkr Cloud Technologies, LLC v. RingCentral, Inc.*, 3-21-cv-02807 (N.D. Tex.) filed Nov. 11, 2021 and terminated Apr. 12, 2022. Pet. 82; Prelim. Resp. 2; Paper 3, 1.

C. The '254 Patent (Ex. 1001)

The '254 patent “relates generally to integrating communications services, and in particular to managing services and applications using telephone numbers as common subscriber identifiers.” Ex. 1001, 1:16–19. According to the '254 patent, “telecommunications service providers still have large numbers of customers with traditional analog telephone service” for whom “the telephone number remains the universal identifier (ID) for communicating with the outside world.” *Id.* at 1:21–26. The '254 patent goes on to state that “increasing numbers of customers wish to add services and applications to their existing telephone service,” but “many services and applications are supplied by third-party providers in different ecosystems” that “often use different types of IDs and have different rules and policies for managing and activating their services and applications.” *Id.* at 1:27–33.

To address this problem, the '254 patent describes “creating a unified services platform using the telephone number as the common subscriber ID.” *Id.* at 1:40–42. Figure 1 of the '254 patent is reproduced below.

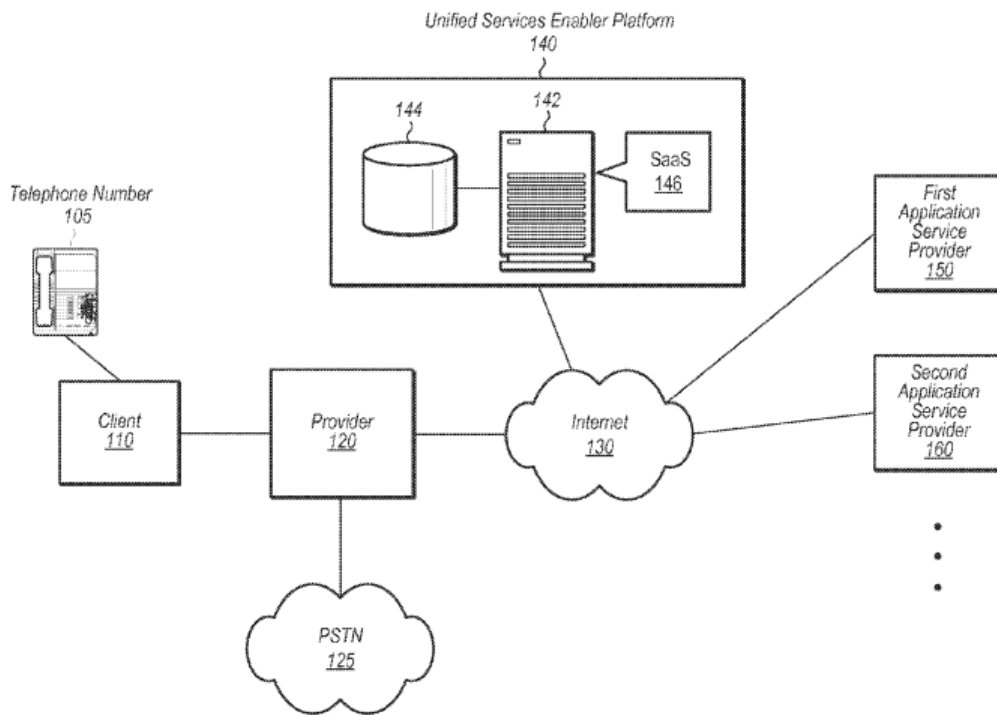


FIG. 1

Figure 1, above, depicts one embodiment of an end user client connecting to a communications network. *Id.* at 2:1–2, 3:33–34. “Client 110 may subscribe to a standard telephone service provided by provider 120, and the telephone service may be associated with telephone number 105.” *Id.* at 3:35–37. “[C]lient 110 may request to add services and applications to the existing telephone service provided by provider 120.” *Id.* at 3:53–55. “Provider 120 may also be coupled to unified services enabler platform 140 via internet 130,” and “[u]nified services enabler platform 140 may be configured to unify all of the available services and applications in a single platform that is associated with a single ID to identify client 110.” *Id.* at 4:14–18.

D. Challenged Claims

Petitioner challenges claims 1, 2, 6–8, and 12–14 of the '254 patent.
Pet. 7. Claims 1, 7, and 13 are independent. Claim 1 is generally illustrative and reproduced below.

- [1.0]¹ A telephone system comprising:
- [1.1] a database; and
- [1.2] a server coupled to the database,
- [1.3] wherein the server is utilized by a first provider to provide a first service to a first user, wherein the first service is telephone service, and wherein the telephone number is associated with a first telephone number;
- [1.4] wherein the server is configured to: receive a request to provision a second service for the first user,
- [1.5] wherein the second service is provided by a second provider, and wherein the second provider is different than the first provider;
- [1.6] responsive to receiving the request: create a mapping from the first telephone number to a second identifier (ID), wherein the second ID is utilized by the second provider to identify the first user;
- [1.7] activate the second service with the second provider utilizing the second ID as a user ID for the first user; and
- [1.8] associate the second service with the first telephone number, wherein the first telephone number is associated with routing and interworking data necessary to utilize the second service.

Ex. 1001, 15:42–64.

E. Evidence

Petitioner relies upon the following evidence:

- (1) U.S. Patent Application Publication No. US 2007/0043687 A1,

¹ Numerical designation adopted by Petitioner. *See* Pet. 27–41.

published February 22, 2007 (“Bodart”) (Ex. 1005);

(2) U.S. Patent No. 6,621,892 B1, issued September 16, 2003
 (“Banister”) (Ex. 1006);

(3) U.S. Patent No. 7,089,585 B1, issued August 8, 2006
 (“Dharmarajan”) (Ex. 1007); and

(4) U.S. Patent Application Publication No. US 2012/0016932 A1,
 published January 19, 2012 (“de Castro”) (Ex. 1008).

Petitioner also relies on the declaration of Henry Houh, Ph.D.
 (Ex. 1003). Patent Owner relies on the declaration of Robert Akl, Ph.D. (Ex.
 2002).

F. Asserted Grounds of Unpatentability

Claims Challenged	35 U.S.C. §	References
1, 2, 6–8, 12–14	103	Bodart, Banister, Dharmarajan
1, 2, 6–8, 12–14	103	de Castro

Pet. 13.

III. ANALYSIS

A. 35 U.S.C § 314(a)

Patent Owner contends the Board should deny the Petition pursuant to
 35 U.S.C. § 314(a) because “the *Fintiv* factors favor denial of institution of
 this Petition, and Petitioner has not presented compelling evidence of
 unpatentability.” Prelim. Resp. 54. Patent Owner provides arguments
 regarding the factors set forth in *Fintiv* in relation to *Zilkr Cloud*
 Technologies, LLC v. Cisco Systems, Inc., No. 2:22-cv-166 (E.D. Tex.), filed
 May 20, 2022. *Id.* at 52–60.

The Board’s precedential decision in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), identifies a non-exclusive list of factors the Board considers when addressing whether a related, parallel district court action provides a basis for discretionary denial under 35 U.S.C. § 314(a). *Fintiv*, Paper 11 at 5–16. Those factors include:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

Id. at 5–6.

On June 21, 2022, the Director of the United States Patent and Trademark Office issued an *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation* (“Guidance Memo”)² to clarify “the [Board’s] current application of *Fintiv* to discretionary institutions where there is parallel litigation” and to “confirm[] that the precedential import of *Fintiv* is limited to the facts of that

² Available at:

https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621.pdf

case.” Guidance Memo 2. In particular, the Memorandum states that the Board

will not deny institution of an IPR or PGR under *Fintiv* (i) when a petition presents compelling evidence of unpatentability; (ii) when a request for denial under *Fintiv* is based on a parallel ITC proceeding; or (iii) **where a petitioner stipulates not to pursue in a parallel district court proceeding the same grounds as in the petition or any grounds that could have reasonably been raised in the petition.**

Id. at 9 (emphasis added).

On July 28, 2023, Petitioner requested authorization “to file a *Sotera* stipulation in IPR2023-00553 involving U.S. Patent No. 9,210,254.”

Ex. 3001. Patent Owner did not oppose Petitioner’s request. *Id.* On July 31, 2023, the Board granted Petitioner’s request to file the stipulation.

Id. On August 3, 2023, Petitioner filed an Authorized *Sotera* Stipulation.

Paper 10 (“Stipulation”). The Stipulation reads in pertinent part:

Petitioner Cisco Systems, Inc. stipulates as follows pursuant to the Board’s authorizing email dated July 31, 2023:

If the PTAB institutes an IPR trial on the grounds presented in Petitioner’s petition filed in this proceeding, IPR2023-00553, Petitioner will not pursue in the co-pending district court litigation (*Zilkr Cloud Technologies, LLC v. Cisco Systems, Inc.*, Case No. 2-22-cv-00166 (E.D. Tex.)) the specific grounds asserted in the petition, or any other ground that could have been reasonably raised in an IPR (i.e., grounds that could have been raised under §§ 102 or 103 on the basis of prior art patent or printed publications). *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-00109, Paper 12 at 18–19 (Dec. 1, 2020).

Paper 10, 2.

Given Petitioner’s Stipulation, and pursuant to the Guidance Memo, we decline to exercise discretion under 35 U.S.C. § 314(a) to deny institution.

B. Level of Ordinary Skill

In determining whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). “The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry.” *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991).

Petitioner describes a person of ordinary skill in the art as a person having “a bachelor’s degree in electrical engineering, computer science, computer engineering, or equivalent, and two years of relevant experience in telecommunications and networking.” Pet. 11 (citing Ex. 1003 ¶ 22). Patent Owner does not contest Petitioner’s description of a person of ordinary skill in the art. Prelim. Resp. 20–21.

Petitioner’s description of a person of ordinary skill appears to be consistent with the subject matter of the ’254 patent. This is supported by the testimony of Petitioner’s declarant, Dr. Houh. *See* Ex. 1003 ¶ 22. We, therefore, adopt Petitioner’s assessment of a person of ordinary skill for purposes of this Decision.

C. Claim Construction

For petitions filed on or after November 13, 2018, a claim shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100 (2019). The Petition was accorded a filing date of February 2, 2023. Paper 5. Thus,

we apply the claim construction standard as set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

Under *Phillips*, claim terms are generally given their ordinary and customary meaning as would be understood by one with ordinary skill in the art in the context of the specification, the prosecution history, other claims, and even extrinsic evidence including expert and inventor testimony, dictionaries, and learned treatises, although extrinsic evidence is less significant than the intrinsic record. *Phillips*, 415 F.3d at 1312–17. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* at 1315.

Only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Matal*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (in the context of an *inter partes* review, applying *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Here, Petitioner explains that, “for the purposes of this proceeding, the terms of the Challenged Claims should be given their ordinary and customary meaning, and no terms require specific construction.” Pet. 12.

Patent Owner “does not propose a comprehensive construction, as it would not be necessary to resolve the controversy and deny the Petition.” Prelim. Resp. 19–20.

For purposes of this Decision and based on this preliminary record, we determine that no claim term requires express construction at this stage of the proceeding.

D. Patentability Challenges

As indicated above, Petitioner presents two grounds challenging the patentability of particular claims of the '254 patent under 35 U.S.C. § 103. Petitioner challenges (1) claims 1, 2, 6–8, and 12–14 based on the combined teachings of Bodart, Banister, and Dharmarajan; and (2) claims 1, 2, 6–8, and 12–14 based on the teachings of de Castro. Pet. 13.

1. Principles of Law

A claim is unpatentable under 35 U.S.C. § 103 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.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham*, 383 U.S. at 17–18. At this stage, neither party has presented evidence on the fourth *Graham* factor.

The Supreme Court has made clear that we apply “an expansive and flexible approach” to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. Reaching this conclusion, however, requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness

requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention. *Id.*

2. *Relevant Prior Art*

a. *Bodart (Ex. 1005)*

Bodart is a U.S. Patent Application Publication that published on February 22, 2007, more than one year before the earliest priority date of the '254 patent. Ex. 1001, code (60); Ex. 1006, code (43).

Bodart relates to “personal productivity systems” that provide for “the integration of personal and public information to enable more productive individuals by automating routine tasks.” Ex. 1005 ¶ 1. Bodart’s systems provide users access to internet-based communications services such as voicemail, text messaging, and voice attendants. *Id.* at Abstr., ¶¶ 22, 25, 26, 44, 64, 72. Bodart describes a virtual assistant having “access to a user’s contacts, calendar, and location,” as well as “information about the weather, traffic, and mass transit.” *Id.* at Abstr. According to Bodart, access to this information “augment[s the virtual assistant’s] ability to make decisions on the user’s behalf.” *Id.* ¶ 20.

Bodart’s Figure 2 is shown below:

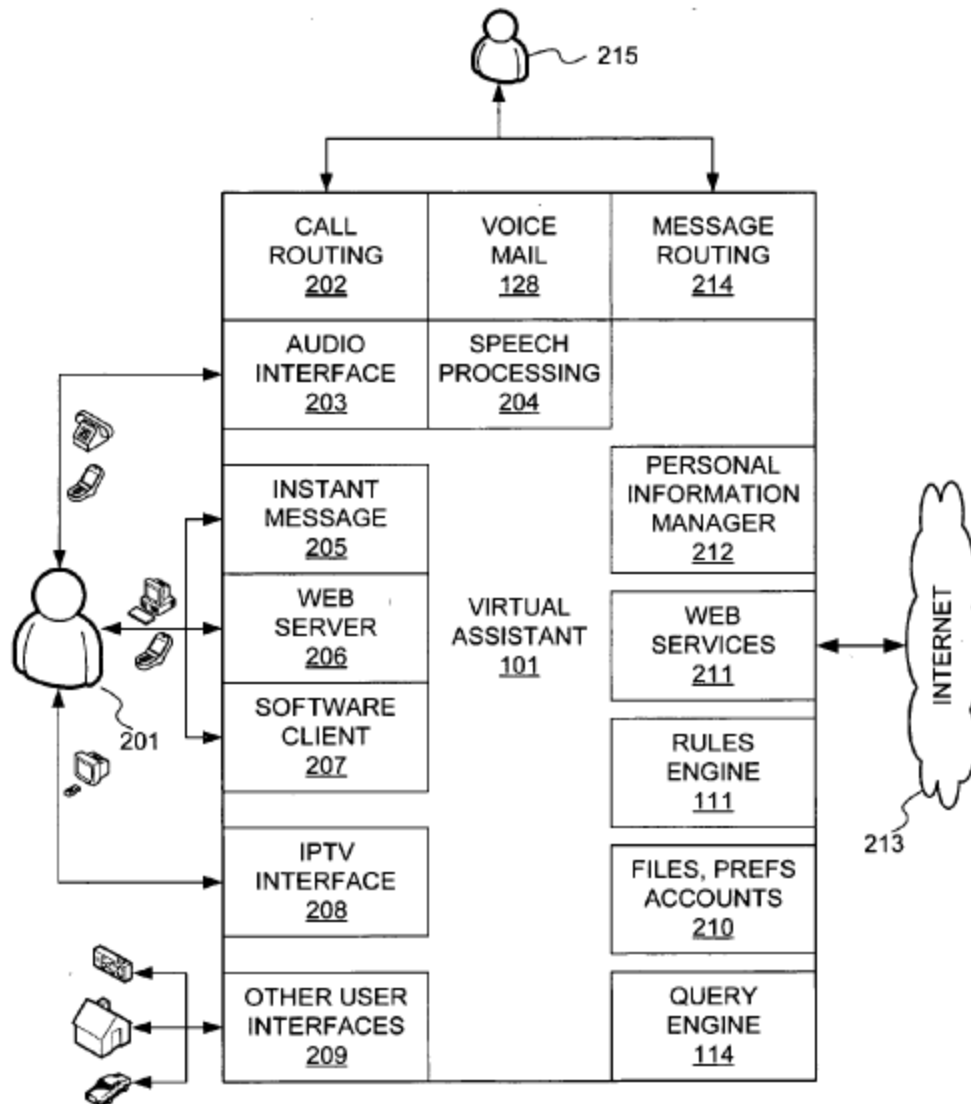


FIG. 2

Bodart’s Figure 2, above, is a block diagram showing the various components of virtual assistant 101, user 201, contact 215, and Internet 213. Bodart explains that user 201 may interact with virtual assistant 101 through one of many interfaces, including, for example, “using an audio interface 203 using a conventional telephone, a cell phone, or even a microphone and speaker attached to a computer.” *Id.* ¶ 33. Bodart also explains that “[a] visual interface may include those provided by instant messenger 205, web

server 206, software client 207, or any other electronic interface. User 201 may interact using a computer, cell phone, or any other device which can receive and send commands.” *Id.* ¶ 34.

Bodart also explains that “[v]irtual assistant 101 may include the ability to receive and direct calls and messages directed to user 201.” *Id.* ¶ 44. “Such ability,” explains Bodart, “includes call routing 202 where an incoming telephone call from contact 215 is routed based on the user's current status as well as whether or not the person making the call is recognized.” *Id.* Similarly, “incoming messages including instant messages and/or SMS messages, and even email messages, may . . . be routed using message routing 214.” *Id.*

Figure 6 of Bodart is shown below.

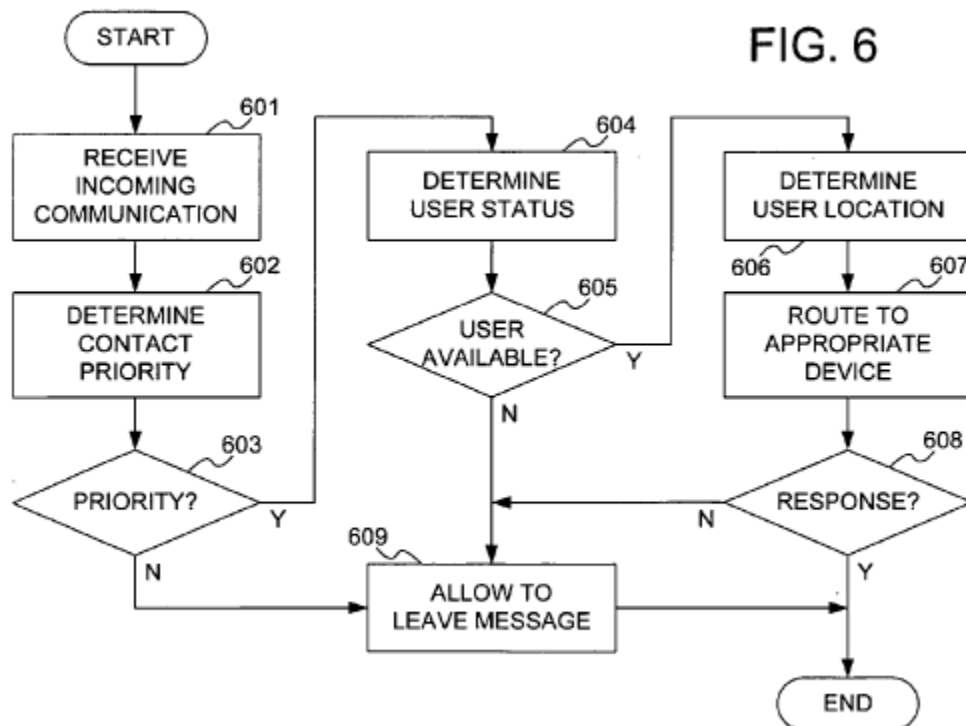


Figure 6 of Bodart is a flow chart illustrating a method with the steps for routing an incoming communication. At step 601, an incoming message

is received. *Id.* ¶ 61. Bodart explains that, “to the extent that the address book of user 201 includes instant message contact information, the system described may be used for incoming electronic text messages as it can be with telephone calls.” *Id.* “At step 602, the incoming communication is recognized as a contact in an effort to determine the sender's priority.” *Id.*

b. Banister (Ex. 1006)

Banister is a U.S. Patent that issued on September 16, 2003, more than one year before the earliest priority date of the '254 patent. Ex. 1001, code (60); Ex. 1006, code (45).

Banister relates to a method for “converting an electronic mail message to audio for delivery via a telephone call.” Ex. 1006, 1:8–10. Banister describes systems for making email messages accessible via telephone. *Id.* at Abstr. Banister’s method includes “retrieving a telephone number associated with an intended recipient of the message . . . establishing a telephonic connection with the recipient and playing an audio form of the message text.” *Id.* at 1:51–57.

Banister explains that “an address specified by an originator of a message may be converted to a telephone number or used to look-up a telephone number when the message is received at electronic mail server 104.” *Id.* at 4:14–17. Banister also explains that the mail server may apply a set of rules “to determine if the prefix [of the email address to which the message is directed] includes or is mapped to a telephone number to which an audio form of the message can or should be delivered.” *Id.* at 7:9–11.

c. Dharmarajan (Ex. 1007)

Dharmarajan is a U.S. Patent that issued on August 8, 2006, more than one year before the earliest priority date of the '254 patent. Ex. 1001, code (60); Ex. 1007, code (45).

Dharmarajan relates to “a method and system for authorizing a client computer to access a server computer system,” such as an instant messaging computer system. Ex. 1007, 1:7–11. Dharmarajan describes providing “instant messaging” to a user with an “instant messaging client application program . . . communicat[ing] through the Internet . . . with an instant message server application.” *Id.* at 4:43–52.

Figure 1 of Dharmarajan is shown below.

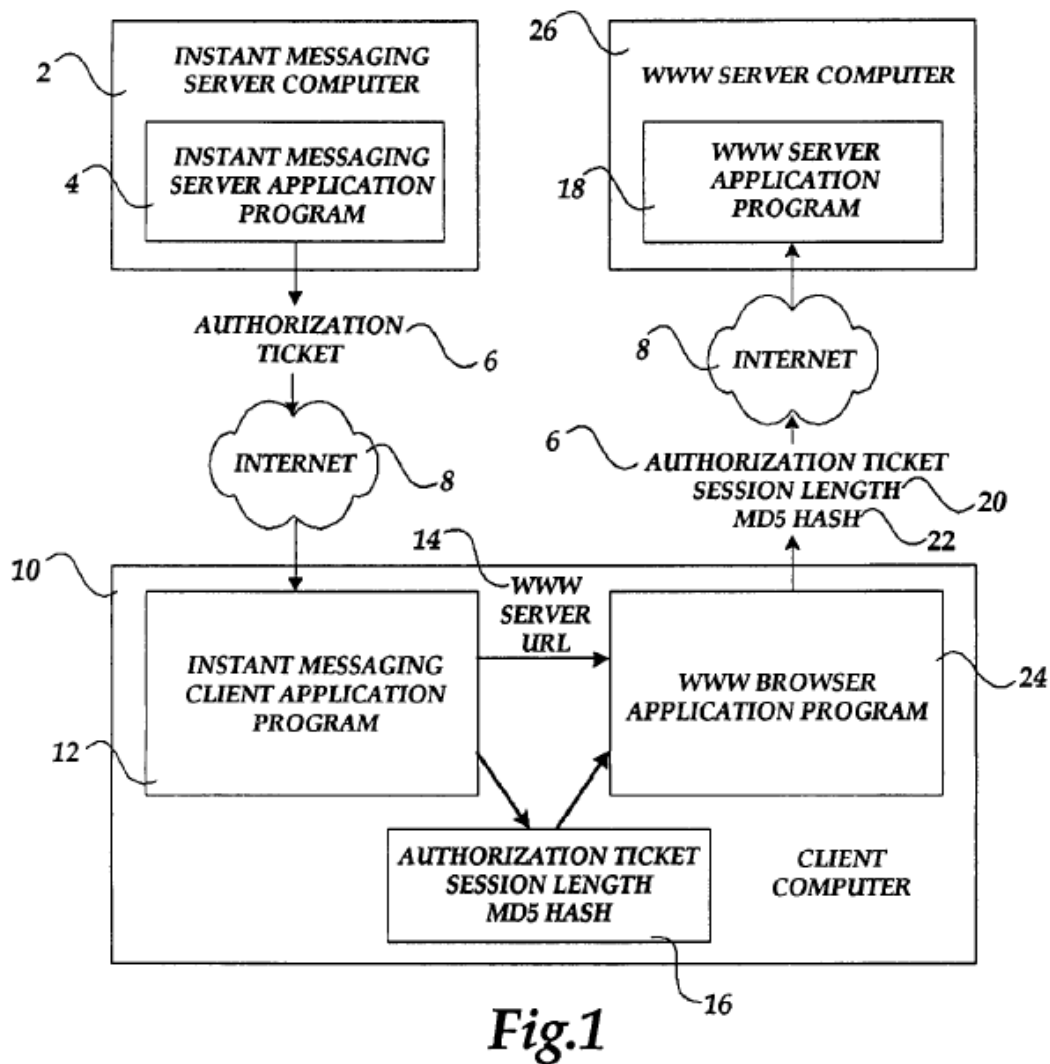


Figure 1 of Dharmarajan, above, is a block diagram illustrating a system architecture and general operation. Ex. 1007, 3:25–27. Dharmarajan describes a technique with which a client computer gains access to an instant messaging service. Client computer 10 executes an instant messaging client application program 12. Instant messaging client application program 12 communicates through Internet 8 with instant messaging server application 4 executing on instant messaging server computer 2. Together, instant messaging client application program 12 and instant messaging server application program 4 provide instant messaging capabilities to a user of the client computer 10. *Id.* at 4:43–52

Dharmarajan explains that “when a user launches the instant messaging client, the user may be required to provide a username and password.” *Id.* at 1:33–35. Dharmarajan also describes a secure login procedure facilitated by an instant messaging client application program. “The secure login is typically initiated by a user of the instant messaging client application program. The login procedure may include the transmission of a username and password from the client computer to the instant messaging server computer in a secure fashion.” *Id.* at 9:47–51.

d. de Castro (Ex. 1008)

De Castro is a U.S. Patent Application Publication that published on January 19, 2012, more than one year before the earliest priority date of the ’254 patent. Ex. 1001, code (60); Ex. 1008, code (43). De Castro describes “a plurality of communication application servers 200” that “allow[] application clients 40 . . . to access the applications hosted in the communication application servers.” Ex. 1008 ¶ 115. Further, “a plurality of scripting engines 600” are used to “host and process the customers’ application scripts 610.” *Id.* ¶ 119. Figure 14 of de Castro is shown below.

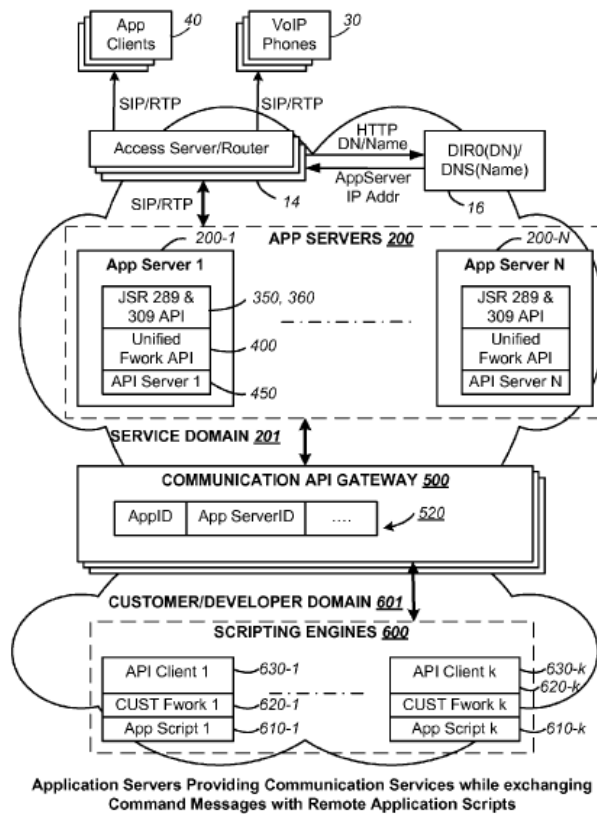


FIG. 14

Figure 14 of de Castro, above, illustrates the network architecture of de Castro with VoIP phones 30, application clients 40, application servers 200 as part of service domain 201, communication API gateway 500 and scripting engines 600 as part of customer/developer domain 601.

E. Obviousness Over Bodart, Banister, and Dharmarajan (Ground 1)

Petitioner contends that claims 1, 2, 6–8, and 12–14 are unpatentable under 35 U.S.C. § 103 as obvious over Bodart, Banister, and Dharmarajan. Pet. 15–50.

1. Rationale to Combine Bodart, Banister, and Dharmarajan

Petitioner contends that a person of ordinary skill in the art considering the teachings of Bodart “would have also considered the teachings of Banister and Dharmarajan, as they are analogous and pertinent to the same field of endeavor.” Pet. 19 (citing Ex. 1005 ¶¶ 28, 30; Ex. 1006,

1:7–8; Ex. 1007, 4:8–13; Ex. 1003 ¶¶ 47, 51, 55–56). Petitioner notes that “[e]ach of these references describes providing users access to telephony and internet-based communications services such as IM and email.” Pet. 19 (citing Ex. 1005, Abstr. ¶¶ 25, 64, 72; Ex. 1006, 1:8–11; Ex. 1007, 4:43–55; Ex. 1003 ¶ 56).

Petitioner asserts that a person of ordinary skill in the art “implementing Bodart’s email-reading functionality would have found it obvious to consider other references like Banister which provides implementation details that Bodart expects.” Pet. 20 (citing Ex. 1005 ¶ 2; Ex. 1006, Abstr., 3:35–50; Ex. 1003 ¶ 62). “For instance,” Petitioner points out, “Banister explains that reading emails via telephone involves looking up a telephone number from an email address.” Pet. 20 (citing Ex. 1006, 2:1–5). “Bodart,” Petitioner explains, “describes storing, in a user data module, ‘contact email addresses and phone numbers,’ as well as ‘user accounts, including email passwords, website passwords, and so forth.’” Pet. 20 (citing Ex. 1005 ¶¶ 21, 22). Petitioner argues that “[i]n view of Banister’s disclosure of maintaining lists of email addresses with associated telephone numbers, it would have been obvious to a [person of ordinary skill in the art] for Bodart’s user data module to store an association between the user’s email address and telephone number.” Pet 20–21(citing Ex. 1003 ¶ 62).

Petitioner contends that

The combination of Bodart and Banister would be simply combining prior art elements according to known methods (computer programming) to yield predictable results (associating an email address with a telephone number in a database). Ex.1003, ¶63. The results of the combination would have been predictable because both Bodart and Banister describe reading emails to a user by phone, and because Banister merely provides

implementation details that Bodart expects. *See* Ex.1005, [0002]; Ex.1006, Abstract; Ex.1003, ¶¶62-63. Furthermore, storing telephone numbers and electronic addresses in databases was well-known in the art. Ex.1003, ¶64; Ex.1013, 6:55 – 7:3; Ex.1014, 11:8-17; Ex.1015, [0116]. The proposed combination would have been predictable and a POSITA would have a reasonable expectation of success, because the combination of Bodart’s email-by-telephone functionality with Banister’s implementation details would have been well-within the skill level of a POSITA.

Pet. 21 (citing Ex. 1003 ¶ 64).

Petitioner also contends that a person of ordinary skill in the art “implementing Bodart’s IM functionality to notify a user of an incoming call would have found it obvious to consider other references like Banister which provides implementation details for associating a recipient’s phone number with an electronic address.” Pet. 22–23 (citing Ex. 1003 ¶ 70). Petitioner argues that “[i]n view of Banister’s disclosure of storing addresses with associated telephone numbers, it would have been obvious to a [person of ordinary skill in the art] for Bodart’s user data module to store an association between the user’s IM username and telephone number.” Pet. 23 (citing Ex. 1003 ¶¶ 70–71). According to Petitioner, “[t]he combination of Bodart[’s user data module] and Banister[’s stored telephone numbers and associated addresses] would be simply combining prior art elements according to known methods (computer programming) to yield predictable results.” Pet. 21 (citing Ex. 1003 ¶ 63).

With respect to Dharmarajan, Petitioner argues that a person of ordinary skill in the art “implementing the IM functionality of Bodart’s virtual assistant would have found it obvious to consider other references like Dharmarajan for implementation details about accessing an IM service.” Pet. 25 (citing Ex. 1003 ¶ 77). According to Petitioner, “[i]t would have

been obvious to a [person of ordinary skill in the art] to store an IM username and password in Bodart's user data module, which the virtual assistant would then use when accessing an IM service." Pet. 25 (citing Ex. 1005 ¶ 34; Ex. 1007, 2:22–26; Ex. 1003 ¶ 77). Such a combination, Petitioner argues, "would be simply combining prior art elements (Bodart's virtual assistant and Dharmarajan's IM login procedure) according to known methods (computer programming) to yield predictable results (the virtual assistant accessing an IM service)." Pet. 25 (citing Ex. 1003 ¶ 78).

Petitioner contends that

[a]n exemplary combination of Bodart and Banister would be to configure the virtual assistant with a table or set of tables in the user data module that associate the user's telephone number with the user's electronic addresses. Ex.1003, ¶¶56, 63. Further combining Dharmarajan with Bodart and Banister would include configuring the virtual assistant to login to an IM service or email service using login credentials (e.g., username, password) stored in the user data module. Ex.1003, ¶¶56, 77. This combination would have been within the skill set of a POSITA, and a POSITA would have had a reasonable expectation of success in the combination. Ex.1003, ¶56. Indeed, a POSITA would have appreciated that other implementations of the combination are possible, and that the specific implementation details would be a design choice.

Pet. 26–27 (citing Ex. 1003 ¶ 56).

Patent Owner contends that a person of ordinary skill in the art would not look to modify Bodart's virtual assistant with Banister's database of email addresses with associated telephone numbers to arrive at the Challenged Claims, especially because, *inter alia*, (1) Bodart and Banister are incompatible, and (2) Petitioner has not shown, *inter alia*, that Bodart associates the user's telephone with a second service for purposes of routing and interworking such that there would even be a need for Banister's database.

Prelim. Resp. 25–26 (citing Ex. 2002 ¶ 59).

With respect to Dharmarajan, Patent Owner argues that “[b]ecause the problem addressed in Dharmarajan is so far attenuated from the personal ‘virtual assistant’ in Bodart and even further attenuated from the inventions recited in the Challenged Claims, a [person of ordinary skill in the art] would not be motivated to combine Dharmarajan with Bodart.” Prelim. Resp. 26–27 (citing Ex. 2002 ¶ 64).

Patent Owner argues that the three references

are not analogous or pertinent to the same field of endeavor. Ex. 2002, Akl Decl., ¶ 53. Petitioner has not shown that any of these references is utilized by a telephone service provider. Ex. 2002, Akl Decl., ¶¶ 54-55, 58, 62. Indeed, it would be impractical for a telephone service provider, such as AT&T to “utilize” Bodart’s personal virtual assistant, especially when there is no reason to do so to “intercept” phone calls and instant messages on behalf of an individual user. Ex. 2002, Akl Decl., ¶ 56. There is also no reason for a telephone service provider to utilize Banister’s system of receiving emails and converting them to audio. Ex. 2002, Akl Decl., ¶ 58. If anything, Banister’s system is utilizing the telephone service and not the other way around. Ex. 2002, Akl Decl., ¶ 58. And Dha[r]marajan has nothing to do with telephone service providers or providing a telephone user with additional services.

Prelim. Resp. 27–28 (citing Ex. 2002 ¶ 62).

Patent Owner also argues that a person of ordinary skill in the art would not be motivated to combine Banister with Bodart to arrive at the inventions recited in the Challenged Claims for several reasons. Ex. 2002, Akl Decl., ¶¶ 59-61. For one thing, a POSITA would understand that there would be no need to either (1) obtain the virtual assistant user’s telephone number either by parsing the recipient’s email address or looking up the phone number in a database or (2) associate and store the user’s IM/email username and phone number. Ex. 2002, Akl Decl., ¶¶ 60-61. Unlike the system of Banister, a POSITA would understand that Bodart’s virtual assistant is utilized by a single user and already knows the single user’s telephone number so

that it can “forward a call” and “intercept a call.” Ex. 1005, [0057], [0060]; Ex. 2002, Akl Decl., ¶ 60.

Prelim. Resp. 28–29. Patent Owner argues that “combining Banister’s database or its functionality would be both unnecessary and inefficient because Bodart explains that ‘call routing’ is handled by rules set up by the user or by default rules.” *Id.* at 29 (citing Ex. 1005 ¶ 57).

Patent Owner further argues that a person of ordinary skill in the art “would not be motivated to combine Dharmarajan with Bodart,” because Dharmarajan “discloses a technique in which a first server computer provides an authorization ticket that the client computer can use to access a second server,” and Bodart “discloses a personal ‘virtual assistant,’” making Bodart and Dharmarajan “incompatible.” Prelim. Resp. 30–31 (citing Ex. 2002 ¶ 62).

We disagree with Patent Owner. Patent Owner argues that the three asserted references, Bodart, Banister, and Dharmarajan, “are not analogous or pertinent to the same field of endeavor,” principally because “Petitioner has not shown that any of these references is utilized by a telephone service provider.” Prelim. Resp. 27 (citing Ex. 2002 ¶¶ 53–55, 58, 62).

Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011).

In its “Field of the Invention” section, the ’254 patent explains that “[t]he present invention relates generally to integrating communications services, and in particular to managing services and applications using

telephone numbers as common subscriber identifiers.” Ex. 1001, 1:15–19. The ’254 patent describes provisioning telecommunications services from service providers (e.g., interactive texting, voicemail) with different ecosystems using a unified software platform. *Id.* at Abstr., 3:55–58, 11:37–42.

Bodart explains that its invention “provides for the integration of personal and public information to enable more productive individuals by automating routine tasks.” Ex. 1005 ¶ 1. Petitioner contends that “Bodart is analogous art to the ’254 patent and is ‘from the same field of endeavor,’ namely, integrating communications services.” Pet. 16 (citing Ex. 1001, 1:16–18; Ex. 1003 ¶ 47). Petitioner explains that “Bodart describes a system ‘for receiving data from a plurality of information providers.’” Pet. 16 (citing Ex. 1005 ¶ 5). According to Petitioner, “[t]he system’s information sources and functionalities are accessible to the user by telephone.” Pet. 16 (citing Ex. 1005 ¶¶ 20, 30). “Similarly,” Petitioner points out, “embodiments of the ’254 patent allow a user to ‘activate many different services and applications from multiple different providers, and these different services may be activated and associated with the user’s existing telephone number.’” Pet. 16 (citing Ex. 1001, 11:18–22). Petitioner asserts that “[b]oth Bodart and the ’254 patent provide users access to internet-based communications services such as voicemail, text messaging, and voice attendants.” Pet. 16 (citing Ex. 1001, 4:14–15, 24–28, 11:37–40; Ex. 1005, Abstr., ¶¶ 22, 25–26, 44, 64, 72; Ex. 1003 ¶ 47).

Based on the present record, Petitioner has shown sufficiently that Bodart is analogous art to the ’254 patent. As Petitioner points out, both Bodart and the ’254 patent address user access to internet-based

communications services such as voicemail, text messaging, and voice attendants. *Id.*

Banister explains that its invention “relates to the fields of computer systems and communications. More particularly, a system and methods are provided for converting an electronic mail message to audio for delivery via a telephone call.” Ex. 1006, 1:8–11. Petitioner argues that “Banister is analogous art to the ’254 patent and is from the same field of endeavor, namely integrating communications services,” because “Banister describes systems making email messages accessible via telephone.” Pet. 17 (citing Ex. 1001, 1:14–17; Ex. 1003 ¶ 51; Ex. 1006, Abstr.). Petitioner points out that “embodiments of the ’254 patent allow a user to ‘activate many different services and applications from multiple different providers, and these different services may be activated and associated with the user’s existing telephone number.’” Pet. 17 (citing Ex. 1001, 11:18–21, 33–42; Ex. 1003 ¶ 51). Petitioner argues that “Banister is also reasonably pertinent to the particular problem of the ’254 patent, that is, to associate an electronic ID with a telephone number to provision a communication service to the user.” Pet. 17 (citing Ex. 1001, 11:33–42; Ex. 1006, 2:1–5, 4:14–17; Ex. 1003 ¶ 51).

Based on the present record, Petitioner has shown sufficiently that Banister is analogous art to the ’254 patent. As Petitioner points out, Banister describes systems making email messages accessible via telephone and embodiments of the ’254 patent describe different services and applications that may be activated and associated with a user’s existing telephone number. *Id.*

Dharmarajan explains that it “relates to a method and system for authorizing a client computer to access a server computer system based upon

authorization previously provided to access another server computer system,” where such client computers communicate with multiple Internet services such as instant messaging, chat facilities, and email. Ex. 1007, 1:7–33. Petitioner argues that “Dharmarajan is analogous art to the ’254 patent and is from the same field of endeavor, namely, integrating communications services,” as “Dharmarajan relates to ‘a method and system for authorizing a client computer to access a server computer system.’” Pet. 18 (citing Ex. 1001, 1:15–18; Ex. 1003 ¶ 55; Ex. 1007, 1:8–12). Petitioner notes that Dharmarajan “provides details on logging into an instant messaging (IM) server computer by providing a username and password.” Pet. 18 (citing Ex. 1007, 1:32–40). “Analogously,” Petitioner points out, “the embodiments of the ’254 patent describe using ‘a login ID or user name’ to activate services.” Pet. 18 (citing Ex. 1001, 8:44–49, 8:65–9:5; Ex. 1003 ¶ 55).

Based on the present record, Petitioner has shown sufficiently that Banister is analogous art to the ’254 patent. As Petitioner explains, Dharmarajan relates to a method and system for authorizing a client computer to access a server computer system and “embodiments of the ’254 patent describe using ‘a login ID or user name’ to activate services.” Pet. 18.

Patent Owner also argues that a person of ordinary skill in the art would not look to modify Bodart’s virtual assistant with Banister’s database of email addresses with associated telephone numbers because “Bodart and Banister are incompatible.” Prelim. Resp. 25–26. Similarly, Patent Owner argues that Bodart and Dharmarajan are “incompatible,” because Dharmarajan “discloses a technique in which a first server computer provides an authorization ticket that the client computer can use to access a

second server,” and Bodart “discloses a personal ‘virtual assistant.’” *Id.* at 30–31.

Patent Owner does not explain what it means when it argues that the prior art references are “incompatible,” and we will not speculate on that meaning here. *See* Prelim. Resp. 15–26, 30–31. Instead, it is important to remember that the test for obviousness is not whether particular features of one reference may be incorporated into the structure of another reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test for obviousness is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (citations omitted). “[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review.” *In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983). “Combining the teachings of references does not involve an ability to combine their specific structures.” *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973).

It is also helpful to remember that “[a] person of ordinary skill [in the art] is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421. Here, a person of ordinary skill in the art would have been someone with a bachelor’s degree in electrical engineering, computer science, computer engineering, or the equivalent, and two years of relevant experience in telecommunications and networking. *See* Section III.B, above. Such a person would recognize that “if a technique has been used to improve one device . . . it would improve similar devices in the same way,” and “using the technique is obvious unless its actual application is beyond his or her skill.” *KSR*, 550 U.S. at 417. Moreover, “[u]nder the correct [obviousness] 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.” *Id.* at 420.

As such, Petitioner’s proffered combination does not appear to be beyond the capabilities of someone of ordinary skill in the art at the time of the invention in light of Dr. Houh’s testimony. *See* Ex. 1003 ¶¶ 56–78. In this context, Petitioner provides sufficient articulation of how and why a person of ordinary skill in the art would have combined the teachings of the asserted art and has also described in satisfactory detail the proffered combination. Petitioner’s explanation of the combined teachings of Bodart, Banister, and Dharmarajan is sufficiently supported by the corroborating testimony of Dr. Houh. *Id.*

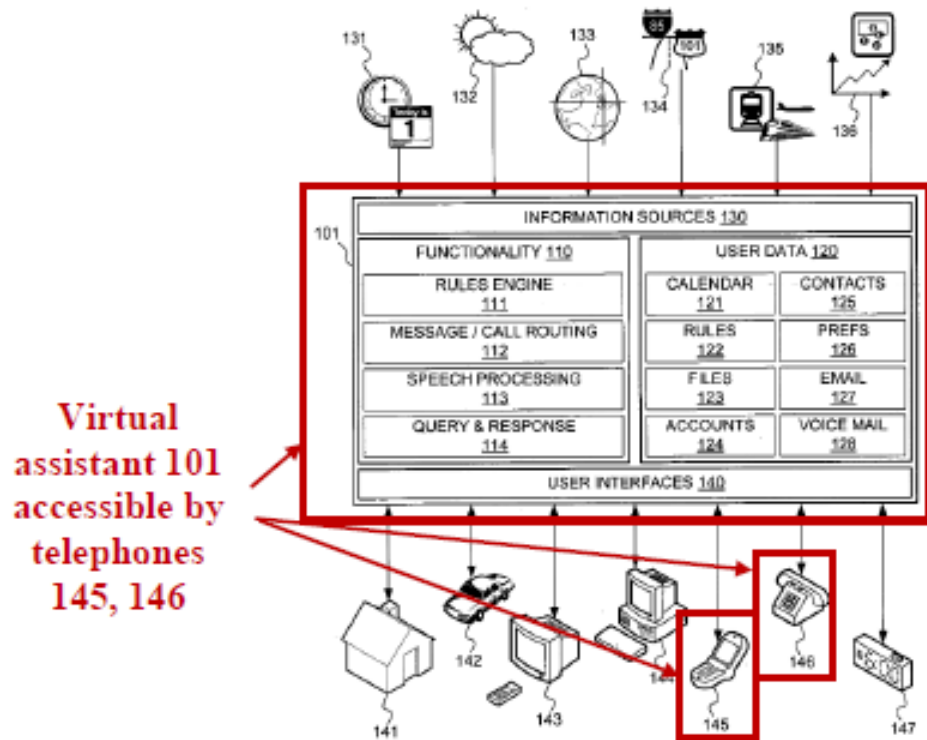
Based upon the current record, we are persuaded that Petitioner has demonstrated sufficiently for purposes of institution that a person of ordinary skill in the art at the time of the invention would have had a reasoned basis for combining the teachings of Bodart, Banister, and Dharmarajan in the manner proffered and would have had a reasonable expectation of success in that endeavor.

2. *Independent Claim 1*

[1.0] A telephone system, comprising:

Claim 1 recites the following preamble: “*A telephone system, comprising.*” Ex. 1001, 15:42.

With respect to the preamble, Petitioner asserts that “Bodart teaches a virtual assistant 101 (‘telephone system’) with communication functionalities including, for example, the ability to initiate telephone calls and fax calls.” Pet. 27 (citing Ex. 1005 ¶ 27) (emphasis omitted). Petitioner’s annotated Figure 1 from Bodart is shown below.



Ex.1005, Fig.1 (annotated); Ex.1003, ¶80.

Petitioner's annotated Figure 1 from Bodart illustrates virtual assistant 101 accessible by "cell phone 145" and "conventional telephone 146."

Pet. 27 (citing Ex. 1005 ¶ 30; Ex. 1003 ¶¶ 80–81). Dr. Houh testifies that

Fig.1 of Bodart shows that the virtual assistant 101 is accessible through a variety of interfaces, including "conventional telephone 146," and "cell phone 145." Bodart, [0030]. For example, using speech processing functionality 113, "a remote user can **call into** his or her virtual assistant and provide voice commands." Bodart, [0026]. Further, Bodart discloses that the virtual assistant 101 includes "Message / Call Routing 112" functionality which "may enable virtual assistant 101 to intercept **incoming telephone calls.**" Bodart, [0025]. Bodart explains that the virtual assistant 101 may have "the ability to initiate **telephone calls** and fax calls." Bodart, [0027].

Ex. 1003 ¶ 81.

With respect to claim 1's preamble, Patent Owner does not respond specifically to Petitioner's evidence and arguments. *See* Prelim. Resp. 32–39.

Dr. Akl, however, “disagree[s] that Bodart’s virtual assistant, ‘[b]y providing the ability to receive, route, and initiate calls’ shows that Bodart’s ‘virtual assistant’ is a ‘telephone service provider’ or that is it ‘utilized by’ a telephone service provider.” Ex. 2002 ¶ 54. Dr. Akl testifies that although

Bodart “can intercept incoming telephone calls, instant messages, and other real time communication requests” for an individual user does not show that Bodart’s virtual assistant is utilized by a telephone service provider or that it provides telephone service to a user by a telephone service provider because those functions (*i.e.*, intercepting and forwarding calls) are handled by the virtual assistant and not a telephone service provider, such as “Verizon, AT&T, and Sprint.” Ex. 1003, ¶ 72. In other words, “intercepting” and “forwarding” calls for an individual is not providing a telephone service to a first user by a “telephone service provider.”

Ex. 2002 ¶ 55.

On this preliminary record, we find that Petitioner has shown sufficiently for purposes of institution that Bodart’s description of a virtual assistant with communication functionality “including, for example, the ability to initiate telephone calls and fax calls,” meets the recited “*telephone system*” of the preamble.³ *See, e.g.*, Ex. 1005 ¶ 27.

³ The issue of whether the preamble is limiting need not be resolved at this stage of the proceeding because, regardless of whether the preamble is limiting, Petitioner shows sufficiently for purposes of institution that the recitation in the preamble is satisfied by the prior art.

[1.1] a database

For this limitation, Petitioner asserts that “Bodart teaches that a ‘user data module may store data about a specific user,’ such as ‘calendar appointment information, contact information, rules information, and preferences information,’” and that “[v]irtual assistant 101 software further may include the ability to access user data 120.” Pet. 28 (citing Ex. 1005 ¶¶ 5, 20) (emphasis omitted). Petitioner also asserts that “Bodart further discloses looking up ‘phone numbers of contacts in the user’s database.’” Pet. 28 (citing Ex. 1005 ¶ 57) (emphasis omitted).

Petitioner also relies on Banister, which Petitioner asserts, “discloses storing ‘addresses with associated telephone numbers’ in a ‘database.’” Pet. 29 (citing Ex. 1006, 2:1–5; Ex. 1003 ¶ 86). “Thus,” Petitioner concludes, “Bodart and Banister render obvious the virtual assistant (*‘telephone system’*) comprising *‘a database.’*” Pet. 29 (citing Ex. 1003 ¶¶ 84–87).

Dr. Houh testifies that “Bodart discloses that a “user data module may store data about a specific user,” such that “[t]he virtual assistant combines the user data and technical functionality ‘to assist the user and make the most accurate decisions possible.’” Ex. 1003 ¶ 85 (citing Ex. 1005 ¶¶ 5, 20) (emphasis omitted). Dr. Houh also testifies that “Banister discloses storing ‘addresses with associated telephone numbers’ in a ‘database,’” and that “Dharmarajan also contemplates a server computer having a ‘database containing [] information.’” Ex. 1003 ¶ 86 (citing Ex. 1006, 2:1–5; Ex. 1007, 2:59–61) (emphasis omitted).

With respect to limitation [1.1], Patent Owner does not respond specifically to Petitioner’s evidence and arguments. *See* Prelim. Resp. 32–39. Dr. Akl does not appear to offer testimony contrary to

Petitioner's evidence. *See* Ex. 2002 ¶¶ 53–67. Rather, with respect to Bodart, Dr. Akl explains that

[u]ser data 120 may be available to virtual assistant 101 either through its own user interface and data storage, or by an electronic interface with the data and functions of other existing software packages. *Id.*, [0020]. User data may include “contact information 125, the equivalent of a software rolodex, where users can store contact email addresses and phone numbers, along with other information” and “a set of rules for use with rules engine 111, setting forth the logic used by virtual assistant to aid the user.” *Id.*, [0021].

Ex. 2002 ¶ 39.

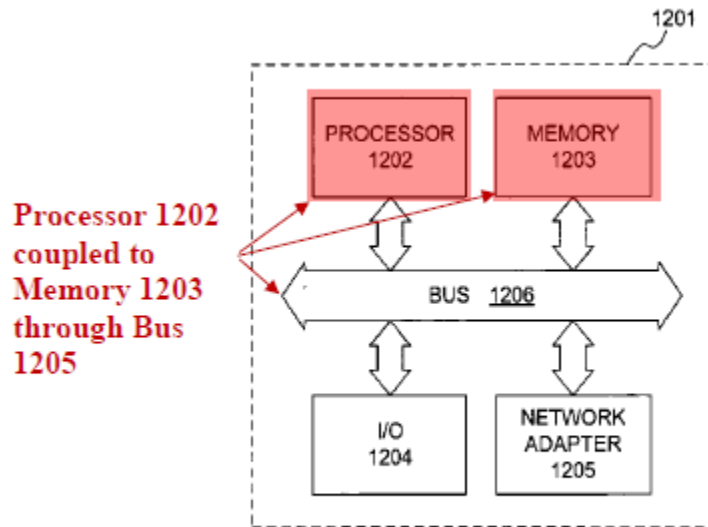
With respect to Banister, Dr. Akl also explains that “[t]he system of Banister ‘may use the prefix to search a list or database of registered accounts or users,’” and “[t]he telephone number derived from the prefix of the message address or located by searching a database for the prefix is passed to a call processor . . . [and used] to set up a call to the addressee.” *Id.* ¶ 43 (citing Ex. 1006, 7:50–54).

Dr. Akl's testimony appears to be consistent with Dr. Houh's testimony with respect to this limitation.

On this preliminary record, we find that Petitioner has shown sufficiently for purposes of institution that Bodart's description of virtual assistant software that may include the ability to access user data and look up phone numbers of contacts in the user's database, as well as Banister's description of storing addresses with associated telephone numbers in a database, meets the recited limitation. *See* Ex. 1005 ¶¶ 5, 20, 57; Ex. 1006, 2:1–5.

[1.2] a server coupled to the database

For this limitation, Petitioner asserts that “Bodart’s virtual assistant is implemented on device 1201” as illustrated in Petitioner’s annotated Figure 12 from Bodart shown below. Pet. 29–30 (citing Ex. 1005 ¶ 75).



Ex.1005, Fig.12 (annotated); Ex.1003, ¶91.

Petitioner’s annotated Figure 12 from Bodart, shown above, illustrates an operating environment where “[d]evice 1201 may be any sort of hardware minimally containing the components shown here, including at least one processor 1202, memory 1203, input/output 1204, network adapter 1205, and bus 1206 to link the components. This includes desktop computers, laptop computers, servers . . . and so forth.” Pet. 30 (citing Ex. 1003 ¶¶ 94–96); *see also* Ex. 1005 ¶ 75, Fig. 12.

Petitioner asserts that

the virtual assistant (“*telephone system*”) accesses user data, which it would have been obvious to store in a *database*. [See Pet.] Section XI.D.5.[1.1]; Ex.1003, ¶86. Because Bodart describes that the virtual assistant may be implemented on the device 1201 (which may be a server), it would have been obvious to a POSITA for Bodart’s virtual assistant to be a server that is “*coupled to the database*.”

Pet. 30 (citing Ex. 1005 ¶¶ 20, 75; Ex. 1003 ¶¶ 94–96).

With respect to limitation [1.2], Patent Owner does not respond specifically to Petitioner’s evidence and arguments. *See* Prelim.

Resp. 32–39. Dr. Akl does not appear to offer testimony on this point either. *See* Ex. 2002 ¶¶ 53–67.

On this preliminary record, we find that Petitioner has shown sufficiently for purposes of institution that Bodart’s description of a virtual assistant with access to user data stored in a database, where the virtual assistant is implemented on a device that may be a server, meets the recited limitations.

[1.3] wherein the server is utilized by a first provider to provide a first service to a first user, wherein the first service is telephone service, and wherein the telephone service is associated with a first telephone number

For this limitation, Petitioner asserts that

Bodart teaches that “[v]irtual assistant 101 may include the ability to **receive and direct calls** and messages directed to **user 201**.” Ex.1005, [0044]. Thus, the virtual assistant 101, which includes “*a server*” as explained in [1.2], is “*utilized*” to provide “*telephone service*” (e.g., receiving and directing telephone calls) to the user 201 (“*a first user*”).

Pet. 31 (citing Ex. 1005 ¶¶ 25, 44; Ex. 1003 ¶¶ 97–100).

Petitioner also asserts that a person of ordinary skill in the art would have found it obvious that the telephone service would be provided to the user by a telephone service provider (“*a first provider*”). Ex.1016, p.2, col.2, ll.80-84; Ex.1017, p.1, col. 2, ll.4-6; Ex.1003, ¶101. For example, a POSITA would have been familiar with telephone carrier companies such as AT&T, Verizon, and Sprint, which were well-known telephone service providers.

Pet. 31 (citing Ex. 1015 ¶ 106; Ex. 1003 ¶ 101).

Petitioner further asserts that

Bodart's disclosure of the user accessing the virtual assistant by telephone renders obvious that the "*telephone service is associated with a first telephone number.*" Ex.1005, [0026]; Ex.1003, ¶¶102-104. For instance, Bodart's disclosure that the "user can call into his or her virtual assistant" renders obvious the virtual assistant having a telephone number. Ex.1005, [0026]; Ex.1003, ¶¶102- 103. Further, Bodart's disclosure that "[v]irtual assistant 101 may include the ability to **receive and direct calls** and messages directed to **user 201**" render obvious the user having a telephone number. Ex.1005, [0044]; Ex.1003, ¶¶102-103. Thus, the telephone service used to access the virtual assistant is "*associated with*" a telephone number for the user, a telephone number for the virtual assistant, or both.

Pet. 31–32 (citing Ex. 1005 ¶¶ 26, 44; Ex. 1003 ¶ 103).

Patent Owner argues that "[n]othing in the Petition or in Petitioner's expert declaration shows that Bodart's purported 'server' is 'utilized by' a telephone carrier company, 'such as AT&T, Verizon, and Sprint.'" Prelim. Resp. 33 (citing Ex. 2002 ¶¶ 54–55). According to Patent Owner, "Petitioner appears to recognize this discrepancy because it argues that the server is 'utilized' to provide 'telephone service,' and not that the server is 'utilized by' a first provider." Prelim. Resp. 33 (citing Pet. at 31). Patent Owner also argues that

it would be impractical for a telephone service provider, such as 'AT&T, Verizon, and Sprint' to 'utilize' Bodart's personal virtual assistant, especially when a [person of ordinary skill in the art] would understand that there is no reason to do so to 'intercept' and 'forward' phone calls and instant messages on behalf of individual users.

Prelim. Resp. 33–34 (citing Ex. 2002 ¶ 56). Patent Owner further argues that a person of ordinary skill in the art "would further understand that 'intercepting' and 'forwarding calls' is not providing a telephone service to a first user by a 'telephone service provider.'" Prelim. Resp. 34 (citing Ex. 2002 ¶ 55).

Patent Owner raises a question as to whether Petitioner has shown that “*the server is utilized by a first provider to provide . . . telephone service*” as recited by the claim. Prelim. Resp. 33. Here, however, Dr. Houh testifies that “Bodart teaches that the virtual assistant may have ‘the ability to **initiate** telephone calls’” and that “the virtual assistant is accessible through a conventional telephone 146 and a cell phone 145.” Ex. 1003 ¶ 99.

Dr. Houh also testifies that “[b]y providing the ability to receive, route, and initiate calls, the virtual assistant is ‘*utilized*’ to provide ‘*telephone service to the first user,*’ and that “it would have been obvious to a [person of ordinary skill in the art] that the telephone service would be provided by a telephone service provider (“*first provider*”).” *Id.* ¶ 101. Dr. Houh further testifies that the telephone service provider’s use of a virtual assistant server to provide telephone service to Bodart’s user is analogous to a telephone service provider’s historical use of landline telephones to provide telephone service to users. *Id.* ¶¶ 100–101.⁴

On this preliminary record, we credit Dr. Houh’s testimony and find that Petitioner has shown sufficiently for purposes of institution that Bodart’s description of a virtual assistant, which includes the ability to receive and direct calls and messages to a user, wherein the virtual assistant includes a server, which is utilized to provide telephone service (e.g., receiving and directing telephone calls) to the user, meets the recited limitations.

⁴ Although we find Dr. Houh’s testimony adequate on this point for purposes of institution, we encourage the parties to more fully develop a record that would further explain how a “*first provider,*” such as Verizon, AT&T, or Sprint, would go about “*utilizing*” the “*server*” of Bodart’s “virtual assistant” to provide “*telephone service*” to a “*first user.*”

[1.4] wherein the server is configured to: receive a request to provision a second service for the first user

For this limitation, Petitioner asserts that the recited “*second service*” may be “either an [instant messaging] IM service or an email service.”

Pet. 32 (citing Ex. 1003 ¶¶ 105–106, 107–111 (IM), 112–114 (email), 115).

With respect to instant messaging, Petitioner asserts that

Bodart teaches that “[t]he virtual assistant also has a rules engine enabling a user to create rules for **handling** incoming calls and **instant messages**.” Ex.1005, Abstract. Further, “a user may be able to **send messages** using an instant message client.” Ex.1005, [0025]. The handling of IMs (e.g., through an IM client) teaches “*a second service*.”

Pet. 32 (citing Ex. 1003 ¶¶ 107–109).

Petitioner also asserts that “Dharmarajan teaches that ‘when a user launches [an] instant messaging client, the user may be required to **provide a username and password**.’” Pet. 32 (citing Ex. 1007, 1:33–35).

According to Petitioner, “[c]onfiguring Bodart’s virtual assistant by providing the username and password for accessing the IM service, per Dharmarajan, renders obvious a “*request to provision [the] second service for the first user*.” Pet. 32 (citing Ex. 1007, 1:33–35; Ex. 1003 ¶ 110).

Petitioner argues that “Bodart’s virtual assistant would ‘*receive [the] request to provision [the] second service*,’ because the virtual assistant would store the preferred IM application or platform, username, and password provided by the user.” Pet. 33 (citing Ex. 1003 ¶¶ 110–111).

With respect to email, Petitioner asserts that “Bodart teaches that a user, through the virtual assistant, can ‘search user files 123, **emails 127**, calendar 121 appointments, and so forth.’” Pet. 33 (citing Ex. 1005 ¶ 27; Ex. 1003 ¶ 112). Petitioner asserts that “Bodart teaches that ‘[a]ccounts 124 may also include . . . **email passwords**,’” and that “the virtual assistant may

rely on a personal information manager (PIM) such as ‘**Microsoft Outlook**’ to access user data.” Pet. 34 (citing Ex. 1005 ¶¶ 22, 40; Ex. 1003 ¶¶ 112–113). Petitioner argues that “[t]he user configuring the user data module with the email account address and password, as well as the server protocol and server address, to the virtual assistant to enable the virtual assistant to login to the email service is a ‘*request to provision [the] second service.*’” Pet. 34 (citing Ex. 1003 ¶¶ 31, 114).

Patent Owner argues that

Petitioner has not shown that either saving login information and contact information, such as a telephone number, or using saved login information and contract information to “access” or “search” emails, is a “request to provision” as recited in the Challenged Claims. Ex. 2002, Akl Decl., ¶ 65. The “request to provision” requires the subsequent steps of: (1) creating a mapping; (2) activating the service; and (3) associating the second service with the first telephone number, which Petitioner has not shown occurs, let alone occurs in response to, the purported storing login information and telephone numbers.

Prelim. Resp. 35 (citing Ex. 2002 ¶ 65).

We disagree with Patent Owner. Limitation [1.4] only requires that the server “*is configured to: receive a request to provision*” a second service for the first user. The recited “*request to provision*” itself does not require the subsequent steps listed by Patent Owner, because these steps are responsive to receiving the request. We address these steps below with respect to limitations [1.6], [1.7], and [1.8].

On this preliminary record, we find that Petitioner has shown sufficiently for purposes of institution that an instant messaging (IM) service or an email service as taught by Bodart and Dharmarajan, where configuring the virtual assistant by providing a username and password for accessing an IM service, or configuring a user data module with an email account address

and password to enable the virtual assistant to login to the email service, meets the recited limitations.

[1.5] wherein the second service is provided by a second provider, and wherein the second provider is different than the first provider

For this limitation, Petitioner asserts that Bodart “teaches that ‘a user may be able to send messages using an instant message client such as America Online (AOL) Instant Messenger, Microsoft Network (MSN) Messenger, and so forth.’” Pet. 35 (citing Ex. 1005 ¶ 34). “Thus,” Petitioner asserts, “Bodart teaches multiple examples of ‘a *second provider*’ (such as AOL or Microsoft) providing IM service (‘*second service*’).” Pet. 35 (citing Ex. 1005 ¶ 34; Ex. 1003 ¶¶ 117–118). Petitioner also argues that a person of ordinary skill in the art “would have found it obvious that AOL or Microsoft would be different from the telephone service provider (‘*first provider*’).” Pet. 35 (citing Ex. 1003 ¶¶ 116, 119).

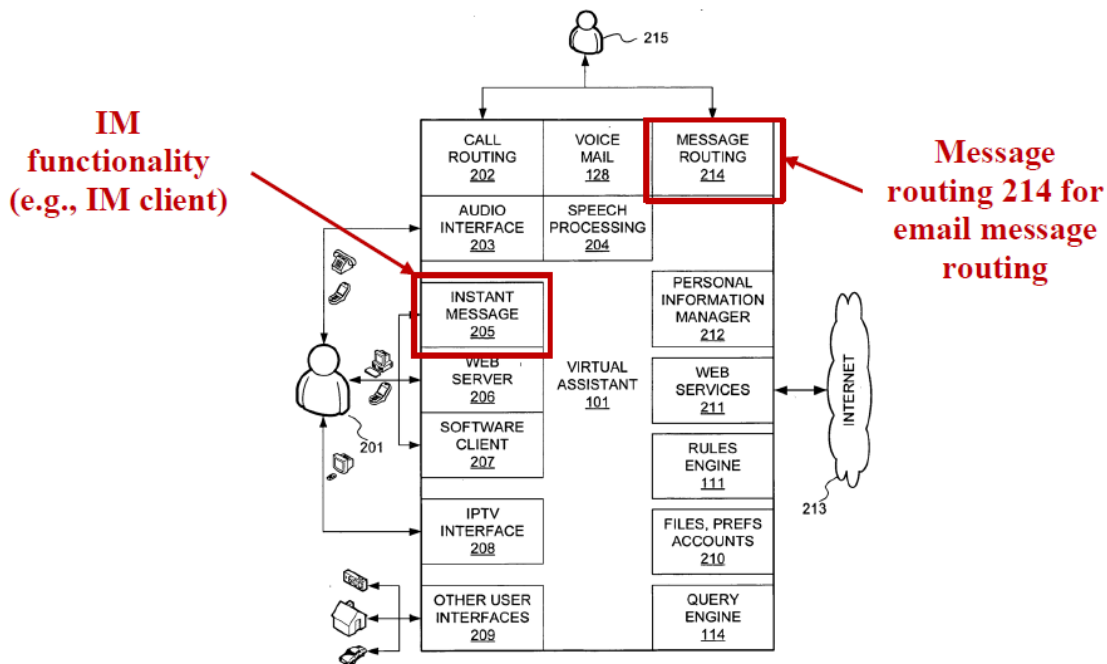
Petitioner also provides an email example as a second service, asserting that “Bodart teaches using PIMs such as ‘Microsoft Outlook.’” Pet. 35 (citing Ex. 1005 ¶ 40; Ex. 1003 ¶¶ 120–121). According to Petitioner, “[i]t would have been obvious to [a person of ordinary skill in the art] that Outlook would provide the email service, or alternatively, would access a well-known email service such as Gmail or Hotmail.” Pet. 35 (citing Ex. 1005 ¶¶ 36, 40; Ex. 1007, 5:28–31; Ex. 1011, pp.1–2; Ex. 1003 ¶ 122). Petitioner asserts that “[i]t would also have been obvious to a [person of ordinary skill in the art] that the email service provider (e.g., Gmail) would be ‘*different than*’ the telephone service provider (‘*the first provider*’).” Pet. 35 (citing Ex. 1005 ¶ 40; Ex. 1003 ¶ 122).

Patent Owner argues that Petitioner

has not shown motivation to combine Bodart and Dharmarajan or that Bodart and/or Bodart in view of Dharmarajan teaches or renders obvious (1) a ‘server’ that is ‘utilized by a first provider to provide a first service to a first user, wherein the first service is telephone service’ and/or (2) ‘wherein the server is configured to: receive a request to provision a second service for the first user.’

Prelim. Resp. 36. Patent Owner’s arguments with respect to limitation [1.5] are unavailing because they are not directed to the recited limitations.

Dr. Houh, however, points to Petitioner’s annotated Figure 2 from Bodart, shown below, testifying that Bodart “shows that the virtual assistant includes IM functionality 205,” and that “email messages [may be] routed using message routing 214.” Ex. 1003 ¶¶ 117, 120 (citing Ex. 1005 ¶¶ 34, 44).



Bodart, Fig. 2 (annotated)

Petitioner’s annotated Figure 2 from Bodart, above, depicts components of virtual assistant 215 including message routing 214 and

instant message 205, both outlined in red. Patent Owner does not contest this evidence. *See* Prelim. Resp. 36.

On this preliminary record, we credit Dr. Houh’s testimony and find that Petitioner has shown sufficiently for purposes of institution that an instant messaging (IM) service or an email service associated with a virtual assistant as taught by Bodart, meets the recited limitations.

[1.6] responsive to receiving the request: create a mapping from the first telephone number to a second identifier (ID), wherein the second ID is utilized by the second provider to identify the first user

For this limitation, Petitioner asserts that “Bodart and Dharmarajan render obvious a user providing an IM username and password into the user data module.” Pet. 36 (citing *id.* at Pet. Section XI.D.[1.4]; Ex. 1003 ¶¶ 107–111). Petitioner asserts that “[t]he IM username (*see* Ex. 1007, 1:33–35) renders obvious a “*second ID [] utilized by the second provider to identify the first user.*” Pet. 36 (citing Ex. 1003 ¶¶ 123–124).

Petitioner explains that “Bodart describes functionalities of the virtual assistant that combine telephone service associated with a telephone number, and a second communication service associated with a different electronic ID.” Pet. 36. According to Petitioner, “Bodart teaches that, in response to an incoming phone call, the ‘virtual assistant 101 may **put [the call] on hold** and attempt to reach user 201 via phone or **instant message.**” Pet. 36 (citing Ex. 1005 ¶ 60). Petitioner asserts that “Bodart further teaches that the user data module may store user account information ‘including email passwords, website passwords, and so forth.’” Pet. 36 (citing Ex. 1005 ¶ 22; Ex. 1003 ¶¶ 125–126).

Petitioner asserts that “Bodart teaches the server sending an IM to a user receiving a phone call, but provides limited details on how this is done.”

Pet. 36 (citing Ex. 1003 ¶¶ 126–127). Petitioner also asserts that “Banister and Dharmarajan provide implementation details for providing access to electronic communications by phone.” Pet. 36 (citing Ex. 1006, Abstr.; Ex. 1007, 1:33–38; Ex. 1003 ¶ 127). “For instance,” Petitioner explains, “Banister describes ‘converting a textual portion of an electronic mail message into audio and delivering the audio through a telephone call to a recipient.’” Pet. 36–37 (citing Ex. 1006, Abstr.). According to Petitioner, Banister also “explains that ‘an [email] **address** specified by an originator of a message may be . . . used to **look-up a telephone number**.’” Pet. 37 (citing Ex. 1006, 4:14–17). Petitioner explains that “[t]o facilitate the look-up, a ‘mail server may maintain a list or **database of addresses with associated telephone numbers**.’” Pet. 37 (citing Ex. 1006, 2:1–5; *see also id.* at 7:8–10; Ex. 1003 ¶ 127). “Thus,” argues Petitioner, “Banister teaches ‘a mapping from the first telephone number to’ an email address.” Pet. 37 (citing Ex. 1003 ¶ 127). Petitioner notes that “[w]hile Banister primarily describes email messages, Dharmarajan explains that logging into an IM service involves an IM username and password.” Pet. 37 (citing Ex. 1007, 1:33–38; Ex. 1003 ¶¶ 31–32, 128).

According to Petitioner, a person of ordinary skill in the art implementing Bodart’s IM functionalities for notifying a user of an incoming call would have found it obvious to consider other references like Banister and Dharmarajan, which simply provide the implementation details that Bodart expects. Ex.1003, ¶128. In this regard, it would have been obvious to incorporate Banister’s database of telephone numbers mapped to electronic addresses to facilitate Bodart’s functionalities that involve two different types of communication identifiers (e.g., IM username and telephone number). Ex.1005, [0002]; Banister, Abstract; Dharmarajan, 1:33–38; Ex.1003, ¶128. The mapping between the user’s telephone number and IM username would facilitate the

virtual assistant notifying the user by IM about the incoming call. Ex.1005, [0060]; Ex.1003, ¶128. This renders obvious “*create a mapping from the first telephone number to a second identifier (ID).*” Ex.1003, ¶128. Further, it would been obvious to a POSITA for the virtual assistant to create the mapping between the telephone number and the IM username when the user configures the user data module with the IM login credentials (“*responsive to receiving the request*”).

Pet. 37–38 (citing Ex. 1003 ¶¶ 28–30, 129).

Petitioner also provides an email example for this limitation, relying on teachings from Bodart. *See* Pet. 38–39 (citing *id.* at Pet. Section XI.D.5.[1.4]; Ex. 1003 ¶¶ 130–132).

Patent Owner argues that “[i]ncorporating Banister’s database into Bodart’s virtual assistant does not show that any ‘mapping’ is done ‘**responsive to**’ receiving a request to provision a second service as required by the Challenged Claims.” Prelim. Resp. 36–37 (citing Ex. 2002 ¶¶ 59–61). Patent Owner argues that “there would be no need to include Banister’s database because Bodart explains that ‘call routing’ is handled by rules set up by the user or by default rules and is based on the caller’s telephone number.” Prelim. Resp. 37 (citing Ex. 1005 ¶ 57; Ex. 2002 ¶ 61). Patent Owner also argues that a person of ordinary skill in the art “would understand that the virtual assistant already knows the user’s telephone number and the user-set rules determine how to route IM and emails.” Prelim. Resp. 37 (citing Ex. 1005 ¶ 24; Ex. 2002 ¶ 56).

Dr. Houh, however, testifies that “Bodart describes the functionality of the server sending an IM to a user receiving a phone call. Bodart also teaches storing ‘email passwords, website passwords, and so forth’ in the user data module.” Ex. 1003 ¶ 127 (citing Ex. 1005 ¶ 22). Dr. Houh also testifies that

Banister teaches a method “for converting a textual portion of an electronic mail message into audio and delivering the audio through a phone call to a recipient.” [Ex. 1006] Abstract. Banister explains that “an address specified by an originator of a message may be converted to a telephone number or used to look-up a telephone number when the message is received at electronic mail server 104. [Ex. 1006] 4:14–17. To facilitate the look-up, a “mail server may maintain a list or database of addresses with associated telephone numbers.”

Ex. 1003 ¶ 127 (citing Ex. 1006, 2:1–5) (emphasis omitted).

Dr. Houh’s testimony explains how Banister describes making a connection between an address specified by an originator of an electronic mail message with an associated telephone number, and testifies that this operation “teaches ‘*a mapping from the first telephone number to*’ an email address.” Ex. 1003 ¶ 127.

On this preliminary record, we credit Dr. Houh’s testimony and find that Petitioner has shown sufficiently for purposes of institution that the combined teachings of the cited art meet the recited limitations.

[1.7] activate the second service with the second provider utilizing the second ID as a user ID for the first user

For this limitation, Petitioner asserts that “Dharmarajan’s disclosure of the IM username (*see* Ex.1007, 1:33–35) teaches the ‘*second ID.*’” Pet. 40 (citing *id.* at Pet. Sect. XI.D.5.[1.6]; Ex. 1003 ¶ 124). Petitioner points out that “Dharmarajan explains that a user may provide an IM username and password ‘to gain access to the server computer that provides the instant messaging service.’” Pet. 40 (citing Ex. 1007, 1:33–38; Ex. 1003 ¶ 136). According to Petitioner,

[i]t would have been obvious to a [person of ordinary skill in the art] that Bodart’s virtual assistant would login to an IM service (*‘activate the second service’*) when the user configures the IM

username and password (*‘responsive to receiving the request’*), for example, to confirm that the username and password are correct.

Pet. 40 (citing Ex. 1003 ¶¶ 31–32, 137). Petitioner asserts that “[g]aining access to the IM service would be an obvious part of the virtual assistant ‘handling incoming . . . instant messages’ and ‘send[ing] messages using an instant message client.’” Pet. 40 (citing Ex. 1005, Abstr., ¶ 34; Ex. 1007, 9:57–61; Ex. 1003 ¶¶ 137–138). Petitioner argues that “[i]t would also have been obvious that the IM service provider would utilize the IM username as ‘a user ID’ for the user.” Pet. 40 (citing Ex. 1005 ¶ 34; Ex. 1003 ¶¶ 135, 138).

Petitioner also provides an email example for this limitation, relying on teachings from Bodart. *See* Pet. 40–41 (citing *id.* at Pet. Section XI.D.5.[1.6]; Ex. 1003 ¶¶ 31–32, 135, 139–141; Ex. 1005 ¶ 40).

Patent Owner argues that

Petitioner has not shown motivation to combine Bodart and Banister and/or Dharmarajan or that Bodart and/or Bodart in view of Banister and/or Dharmarajan teaches or renders obvious (1) a “server” that is “utilized by a first provider to provide a first service to a first user, wherein the first service is telephone service” and/or (2) “wherein the server is configured to: receive a request to provision a second service for the first user.” For these reasons alone, Petitioner cannot show that the “server” is configured to, responsive to receiving the request: “activate the second service with the second provider utilizing the second ID as a user ID for the first user.”

Prelim. Resp. 37–38.

Patent Owner’s arguments with respect to limitation [1.7] are unavailing because they are not directed to the recited limitation. We address the issue of motivation to combine in Section III.E.1, as well as limitations [1.3] and [1.4] in their respective sections, above.

Dr. Houh testifies that

logging into the IM service responsive to the user providing the IM username and password would be an obvious part of the virtual assistant using IM-related functionalities, including ‘handling incoming . . . instant messages’ and send[ing] messages using an instant message client.’ It would also have been obvious that the IM service provider (e.g., Microsoft, AOL) would utilize the IM username as ‘*a user ID*’ for the user because the IM username identifies the user.

Ex. 1003 ¶ 138 (citing Ex. 1005 Abstr., ¶ 34; Ex. 1007, 1:33–35, 9:57–61).

On this preliminary record, we credit Dr. Houh’s testimony and find that Petitioner has shown sufficiently for purposes of institution that the combined teachings of the cited art meet the recited limitations.

[1.8] associate the second service with the first telephone number, wherein the first telephone number is associated with routing and interworking data necessary to utilize the second service

For this limitation, Petitioner asserts that “Bodart discloses that ‘virtual assistant may put [a call] on hold and attempt to reach user 201 via . . . instant message.” Pet. 41 (citing Ex. 1005 ¶ 60) (emphasis omitted). “Thus,” Petitioner argues, “Bodart teaches using IM service (*‘the second service’*) to reach the user when the virtual assistant intercepts a call to a telephone number associated with the user or virtual assistant (*‘the first telephone number’*).” Pet. 41 (*see also* Ex. 1003 ¶ 145). According to Petitioner, “Bodart teaches that these functionalities may be facilitated by a stored ‘set of rules . . . setting forth the logic used by virtual assistant to aid the user.’” Pet. 41(citing Ex. 1005 ¶¶ 21, 57, 60). Petitioner argues that “[i]t would have been obvious to a [person of ordinary skill in the art] for the virtual assistant to use stored rules associating the IM service with *‘the first*

telephone number’ to automate the IM functionality described above.”

Pet. 41–42 (citing Ex. 1005 ¶ 60; Ex. 1003 ¶¶ 142–145).

Petitioner asserts that “Bodart further explains that ‘a user may be able to send messages using an instant message client.’” Pet. 42 (citing Ex. 1005 ¶ 34). Petitioner points out that “Dharmarajan explains that an ‘instant messaging client’ performs a login ‘to gain access to the server computer that provides the instant messaging service.’” Pet. 42 (citing Ex. 1007, 1:35–38). According to Petitioner, “[i]t would have been obvious to a [person of ordinary skill in the art] that Bodart’s account information would include the name or address of the IM server computer (*‘routing and interworking data necessary to utilize the second service’*) for gaining access to the IM service.” Pet. 42(citing Ex. 1005 ¶¶ 34, 60; Ex. 1003 ¶¶ 146–147). Petitioner asserts that “[t]he name or address of the IM server computer would be stored in the account information with the telephone number of the virtual assistant or user (*‘the first telephone number’*), and therefore would be *‘associated with’* the telephone number.” Pet. 42 (citing Ex. 1005 ¶ 22; Ex. 1003 ¶ 147).

Petitioner also provides an email example for this limitation, relying on teachings from Bodart. *See* Pet. 40–41 (citing *id.* at Pet. Section XI.D.5.[1.6]; Ex. 1003 ¶¶ 31–32, 135, 139–141; Ex. 1005 ¶ 40).

Patent Owner argues that Bodart’s “handling of an incoming call to the virtual assistant is based on user-set rules and is determined by the caller’s number—not the telephone number of the virtual assistant user.” Prelim. Resp. 38 (citing Ex. 1005 ¶¶ 57, 61–64; Ex. 2002 ¶ 61). Patent Owner argues that a person of ordinary skill in the art “would understand that the virtual assistant already knows the telephone number of the virtual assistant user because it can ‘intercept’ calls to that number and handle them

according to the user-set rules.” Prelim. Resp. at 38–39 (citing Ex. 2002 ¶ 56). “In other words,” Patent Owner argues, “it is the caller’s number that is ‘associated with routing and interworking’ and not the ‘first telephone number’ of the virtual assistant.” Prelim. Resp. at 39 (emphasis omitted).

Dr. Houh testifies, however, that “Bodart describes using rules to automate the virtual assistant’s functionalities including call handling,” such that “an association between the IM service (*‘the second service’*) and *‘the first telephone number’* would be embodied in the rule or set of rules stored in the user data module, where ‘the first telephone number’ corresponds to the telephone number of the user, the telephone number of the virtual assistant, or both.” Ex. 1003 ¶ 145 (citing Ex. 1005 ¶ 57). Dr. Houh also testifies that “[t]he name or address of the IM server computer is *‘routing and interworking data necessary to utilize’* the IM service,” and that this information “would be stored in the user data module with the telephone number of the virtual assistant or user, and therefore would be associated with *‘the first telephone number.’*” Ex. 1003 ¶¶ 146–147 (citing Ex. 1005 ¶ 22).

On this record, we credit Dr. Houh’s testimony that Bodart’s rules for automating a virtual assistant’s functionalities using the name or address of an IM server computer stored in a user data module with the telephone number of the virtual assistant or user would satisfy the recited association between the “*second service*” and the “*first telephone number.*” Whether Patent Owner’s argument is correct that “it is the caller’s number that is ‘associated with routing and interworking’ and not the ‘first telephone number’ of the virtual assistant,” because Bodart’s “virtual assistant already knows the telephone number of . . . the user” needs to be determined at trial

because it creates a factual issue that cannot be resolved on this preliminary record. *See* Prelim. Resp. 38–39 (emphasis omitted).

Based on this preliminary record, we find that Petitioner has shown sufficiently for purposes of institution that the combined teachings of the cited art meet the recited limitations.

Conclusion as to Independent Claim 1

Based upon the current record, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenge to claim 1 under 35 U.S.C. § 103(a) as obvious over the combined teachings of Bodart, Banister, and Dharmarajan.

3. Claims 2, 6–8, and 12–14

Petitioner argues the combination of Bodart, Banister, and Dharmarajan teaches or suggests the recited limitations of claims 2, 6–8, and 12–14. Petitioner provides explanations as to how the combination of Bodart, Banister, and Dharmarajan teaches or suggests each claim limitation as well as a rationale for combining the art in the manner proffered. *See* Pet. 43–46 (claim 2), 46 (claim 6), 46–47 (claim 7), 47–48 (claims 8 and 12), 48–50 (claim 13), and 50 (claim 14). Dr. Houh provides supporting testimony for Petitioner’s contentions. *See* Ex. 1003 ¶¶ 152–189.

Patent Owner relies on its arguments with respect to claim 1 to argue that Petitioner has not shown that the asserted prior art teaches or renders obvious these claims. *See* Prelim. Resp. 39–41.

We have considered Petitioner’s and Patent Owner’s evidence and arguments with respect to claims 2, 6–8, and 12–14. Based upon the current record, we are persuaded that Petitioner has shown sufficiently for purposes of institution that the combined teachings of the cited art meet the recited limitations of claims 2, 6–8, and 12–14, and that a person of ordinary skill in

the art at the time of the invention would have combined the references in the manner proffered and would have had a reasonable expectation of success in that endeavor.

F. Obviousness Over de Castro (Ground 2)

Petitioner contends that claims 1, 2, 6–8, and 12–14 are unpatentable under 35 U.S.C. § 103(a) as obvious over de Castro. Pet. 50–76. Petitioner provides evidence and arguments as to how de Castro teaches or suggests each claim limitation. *See* Pet. 69–72 (claim 2), 72 (claim 6), 72–74 (claim 7), 74 (claims 8 and 12), 74–76 (claim 13), and 76 (claim 14). Dr. Houh provides supporting testimony for Petitioner’s contentions. *See* Ex. 1003 ¶¶ 190–292.

Patent Owner disputes Petitioner’s contentions and provides evidence and arguments as to how Petitioner has failed to demonstrate that the challenged claims are obvious over de Castro. *See* Prelim. Resp. 41–52.

We have considered Petitioner’s and Patent Owner’s evidence and arguments with respect to claims 1, 2, 6–8, and 12–14. Because we determine that Petitioner demonstrates a reasonable likelihood of prevailing in its challenge to claim 1 under 35 U.S.C. § 103(a) as obvious over the combined teachings of Bodart, Banister, and Dharmarajan, we proceed to institute *inter partes* review as to all other challenges in the Petition, including Petitioner’s challenges to claims 1, 2, 6–8, and 12–14 under 35 U.S.C. § 103(a) as obvious over de Castro. *See PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018).

IV. CONCLUSION

For the foregoing reasons, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing with respect to at least

one of the challenged claims of the '254 patent. We therefore institute trial as to all challenged claims on all grounds stated in the Petition.

At this preliminary stage of the proceeding, we have not made a final determination as to the patentability of any challenged claim or any factual or legal issue underlying the patentability inquiry. Any final determination will be based on the complete record developed during trial. We place Patent Owner on express notice that any argument not asserted in a timely-filed Response to the Petition, or in another manner permitted during trial, shall be deemed waived, even if that argument was presented in the Preliminary Response.

V. ORDER

Accordingly, it is

ORDERED that an *inter partes* review is instituted as to all challenged claims on all grounds raised in the Petition; and

FURTHER ORDERED that *inter partes* review is instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

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