Trials@uspto.gov
571-272-7822

Paper 34
Entered: July 29, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

FLYPSI, INC,
Patent Owner.

IPR2023-00361
Patent 10,051,105 B2

Before ROBERT J. WEINSCHENK, JAMES J. MAYBERRY, and MICHAEL T. CYGAN, *Administrative Patent Judges.*

CYGAN, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background and Summary

Google LLC ("Petitioner") filed a Petition (Paper 1, "Pet.") requesting institution of *inter partes* review of claims 1–11 of U.S. Patent No. 10,869,105 B2 (Ex. 1001, the "'105 patent"), accompanied by a declaration by Dr. Bill Lin (Ex. 1002, the "Lin Decl."). Flypsi, Inc. ("Patent Owner") filed a Preliminary Response ("Prelim. Resp."). Paper 6. After obtaining authorization from the Board, Petitioner filed a Reply (Paper 7, "Pet. Reply") and Patent Owner filed a Sur-reply (Paper 8, "PO Sur-reply"). Based upon the preliminary record, we instituted an *inter partes* review as to claims 1–11 of the '105 patent and all of the asserted grounds of unpatentability. Paper 9 ("Dec. on Inst.").

Patent Owner filed a Response ("PO Resp."), accompanied by a declaration of Dr. Akl ("Akl Decl.") and a deposition of Dr. Lin ("Lin Dep."). Paper 22, Exs. 2010, 2009. Petitioner filed a Reply accompanied by a deposition of Dr. Akl. Paper 25 ("Pet. Reply"); Ex. 1102 ("Akl Dep."). Patent Owner filed a Sur-reply. Paper 27 (PO Sur-reply). We held an oral hearing at the parties' request, and entered a transcript of that hearing into the record. Paper 33 ("Tr.").

We have jurisdiction under 35 U.S.C. § 6. This decision is a Final Written Decision under 35 U.S.C. § 318(a) as to the patentability of claims 1–11 of the '105 patent. For the reasons we identify below, we hold that Petitioner has demonstrated by a preponderance of the evidence that these challenged claims are unpatentable.

B. Real Parties in Interest

Petitioner identifies Google LLC as the real party in interest. Pet. 1. Petitioner identifies Google LLC as a subsidiary of XXVI Holdings, Inc.,

which is a subsidiary of Alphabet Inc., but states that XXVI Holdings Inc. and Alphabet Inc. are not real parties in interest to this proceeding. *Id.* n.1. Patent Owner identifies itself as the real party in interest. Paper 4, 2.

C. Related Matters

The parties represent that the '105 patent is involved in *Flypsi Inc. d/b/a Flyp v. Google, LLC*, No. 6:22-cv-00031 (W.D. Texas). Pet. 1; Paper 4, 2. The parties further represent that Petitioner has filed, at the same time that this Petition was filed, petitions for *inter partes* review against related family members U.S. Patent No. 9,667,770 B2 (IPR2023-00360), U.S. Patent No. 11,012,554 B2 (IPR2023-00359), U.S. Patent No. 10,334,094 B2 (IPR2023-00358), and U.S. Patent No. 11,218,585 B2 (IPR2023-00357). Pet. 1–2; Paper 4, 2–3.

D. The '105 Patent

The '105 patent is titled "Telephone Network System and Method." Ex. 1001, code (54). The '105 patent issued from Application Serial No. 15/582,091, filed on April 28, 2017, and claims priority through a chain of continuation and continuation-in-part applications to Application No. 13/944,853, filed on July 17, 2013. *Id.* at codes (21), (22), (63).

The '105 patent

> relates to systems and methods for setting up and connecting telephone calls, and delivering information related to such telephone calls using an Internet Protocol (IP) or other data channel while delivering the voice portion of the call in accordance with CDMA, GSM, or like voice channel delivery standards.

Id. at 1:18–23.

E. Illustrative Claims

Claims 1 and 2 are illustrative. Claim 1 recites as follows:[1]

[1.pre] A method of providing telephone service, comprising:

[1.a] automatically storing electronic information that indicates an association of a secondary telephone number and a primary telephone number with a telephone handset in a computer memory associated with a server;

[1.b] automatically storing electronic information that indicates a selection of call processing rules for the primary telephone number in the computer memory;

[1.c] automatically storing electronic information that indicates a selection of call processing rules for the secondary telephone number in the computer memory;

[1.d] receiving an electronic indication of an incoming call to the secondary telephone number at the server, said electronic indication of an incoming call being received from a switch associated with the server;

[1.e] automatically accessing the call processing rules for the secondary telephone number under the control of the server responsive to the receipt of the electronic indication of the incoming call to the secondary telephone number;

[1.f] automatically handing the incoming call in accordance with the accessed call processing rules for the secondary telephone number;

[1.g] transmitting pre-call information via a data channel to the handset under the control of the server, said pre-call information including a bridge telephone number for connecting the handset to the incoming call at the switch; and

[1.h] receiving, at the server via the data channel, an electronic indication of a selection of a call processing rule for handling the incoming call to the secondary telephone number, or

[1] Petitioner's bracketing indicia have been added.

> [1.i] establishing a voice channel connection between the handset and the switch as a result of the handset calling the switch using the bridge telephone number.

Ex. 1001, 1:65–2:33.

Claim 2 recites as follows:

> 2.pre] A method for providing telephone service to a telephone handset having a primary telephone number assigned to the telephone handset, wherein at least a secondary telephone number is associated with the primary telephone number assigned to the telephone handset, the method comprising:
>
> [2.a] A) in response to an incoming call to the secondary telephone number received by a switch, retrieving, by a server from a database, a first bridge telephone number to be used for completion of the incoming call to the secondary telephone number, wherein the first bridge telephone number is associated with the switch such that calls to the first bridge telephone number are automatically routed to the switch; and
>
> [2.b] B) transmitting, from the server to the telephone handset via at least one data channel, pre-call information including the first bridge telephone number, whereby the pre-call information allows the telephone handset to accept the incoming call to the secondary telephone number by making a first bridge call using the first bridge telephone number to connect the incoming call to the telephone handset via the switch.

Ex. 1011, 10:34–54.

F. Evidence

Petitioner relies on the following patent evidence.

Name	Patent Document	Exhibit
Backhaus	U.S. Pub. No. 2013/0295892 A1, issued Nov. 7, 2013, and filed June 17, 2013.	1005
Logan	U.S. Pub. No. 2010/0128857 A, published May 27, 2010.	1015
Winbladh	U.S. Pub. No. 2009/0310598 A1, published Dec. 17, 2009.	1020

Taylor	U.S. Pub. No. 2009/0052437 A1, Feb. 26, 2009.	1007

G. Prior Art and Asserted Grounds

Petitioner asserts that claims 1–11 would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1	103[2]	Backhaus, Logan
2–4, 6–11	103	Backhaus, Winbladh
5	103	Backhaus, Winbladh, Logan
1	103	Backhaus, Logan, Taylor
2–4, 6–11	103	Backhaus, Winbladh, Taylor
5	103	Backhaus, Winbladh, Logan, Taylor

II. ANALYSIS

A. Legal Standards

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, "would have been obvious at the time the invention was made to a person having ordinary skill in the art [to which said subject matter pertains]." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence

[2] Petitioner asserts, and we agree, that the AIA patentability statutory provisions apply to the '105 patent. *See* Pet. 4.

of non-obviousness.[3] *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art at the critical time "would have had an undergraduate degree in electrical engineering, computer engineering, computer science or a related field along with two years of work experience in the field of telecommunication. . . . More education can supplement practical experience and vice versa." Pet. 4–5 (citing Ex. 1002 ¶¶ 17–18).

Patent Owner does not dispute Petitioner's assessment of the level of ordinary skill. PO Resp. 6. Determining the level of ordinary skill in the art involves various factors, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). The prior art of record also reflects the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). Based on the complete trial record, we adopt the assessment offered by Petitioner and undisputed by Patent Owner, as it is consistent with the '105 patent and the asserted prior art.

C. Claim Construction

In an *inter partes* review, we construe a patent claim "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)." 37 C.F.R. § 42.100(b) (2019).

---

[3] Neither party presents evidence or arguments regarding objective evidence of non-obviousness.

Under this standard, the words of a claim generally are given their "ordinary and customary meaning," which is the meaning the term would have to a person of ordinary skill at the time of the invention, in the context of the entire patent including the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). We "need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

Here, Petitioner contends that no claims require construction at this time. Pet. 5. Patent Owner proposes construction of the following terms: "channel," "transmitting pre-call information," and "a bridge telephone number for connecting the handset to the incoming call at the switch." PO Resp. 6–21. Both parties dispute these constructions in their briefing. Pet. Reply; PO Sur-reply.

1. "channel"

With respect to "channel," the parties dispute whether a channel may be a voice channel at some points in time and a data channel at others. Patent Owner argues for an interpretation in which "[a] channel does not have to be fully connected on both ends or actually transmitting a particular type of information to qualify as a channel." PO Resp. 7. Patent Owner disagrees with Petitioner's statement that "[a] POSITA [person of ordinary skill in the art] would have understood that the encoded message . . . is transmitted via a 'data channel' because Backhaus discloses that that a voice path is not connected until the call is answered by the callee." *Id.* at 7–8. Patent Owner argues that any channel that carries voice at any point in time is a voice channel. *Id.* at 8–10. Patent Owner argues that such an

interpretation is consistent with the usage in the patent. *Id.* at 9–10 (citing Ex. 1001, 7:2-6 (the switch "may 'bridge' the incoming voice channel call to the bridge telephone number with the incoming voice channel call to the secondary telephone number to thereby connect the incoming call from the calling party to the handset 340 via a voice channel).

We determine that we need not construe "channel" under either of Petitioner's two alternate theories of unpatentability. There is no dispute that an IP-based communications channel satisfies the term channel as used in the claims. *Compare* Pet. 35, 37 (relying on Backhaus's "IP-based interaction" for the claimed "data channel") *with* PO Resp. 5–6 ("data channels . . . for example, using 'IP as a protocol.'"). With respect to Petitioner's "second way," Patent Owner's proposed construction of the term "channel" does not impact the parties' dispute, which focuses on whether it would have been obvious to uses a data channel for the specific transmission being claimed, whether Petitioner has improperly combined embodiments of Backhaus. PO Resp. 30–32; Tr. 10:2–11, 68:3–24.[4] Consequently, we need not expressly construe the term "channel" to resolve the parties' disputes regarding the asserted grounds of unpatentability for the "second way" theory.

With respect to Petitioner's "first way," Patent Owner argues that Petitioner relies upon a single channel as being a voice channel when carrying voice, and a data channel when carrying data. PO Resp. 9–13.

---

[4] Patent Owner argues that we should still address its proposed construction of the term "channel" because it "significantly impacts the credibility" of Petitioner's declarant, Dr. Bill Lin. Tr. 68:3–24; PO Sur-reply 3 n.1. We disagree. The portions of the Lin Declaration that we rely on in this Decision are credible because those portions are consistent with and supported by the other evidence of record. *See* Sections II.D–II.E.

However, our determination is not based on such reliance on Backhaus's single channel, but instead, on Petitioner's assertion that it would have been obvious to employ an IP-based communication as a channel separate from the voice channel. *See* Section II(D)(3); Pet. 33.

Moreover, the term "voice channel" appears only in limitation [1.i], which, as Petitioner points out, is claimed in the alternative to limitation [1.h]. Pet. 39. The "voice channel protocol" of claim 7 is not specifically argued against by Patent Owner; moreover, the construction of that term is not at issue because both the '105 patent and Backhaus describe 3G and 4G as voice channel protocols. Ex. 1001, 1:50–52 ("a voice channel provided in accordance with a voice channel protocol, e.g., in accordance with CDMA or GSM, 3g, 4G, LTE or like"); Pet. 57 (citing Ex. 1005 ¶ 29). Because we determine that Petitioner has shown the [1.h] alternative to be met, we need not determine whether limitation [1.i] and its claimed voice channel is also met by the asserted references. *See* Section II.D.3.

For the foregoing reasons, we determine that the term "channel" does not require an express construction to resolve the parties' disputes regarding the asserted grounds of unpatentability.

2. "pre-call information"

With respect to "transmitting pre-call information," the parties disagree at what point in time information may be considered "pre-call" information. Petitioner asserts that information is the claimed 'pre-call information" if it is "transmitted before connecting the voice call between the calling and called parties." Pet. 33.

Patent Owner argues that "[t]he transmission must occur after the indication of an incoming call is received in step [1.d]. The 'pre-call information' must be information relating to the specific call received in step

[1.d].” PO Resp. 14 (arguing similarly for independent claim 2). Patent Owner argues that because limitation [1.g] recites connecting the handset to “the incoming call, the “pre-call” information must relate to, and occur after receiving, “the incoming call.” *Id.* at 15. Patent Owner relies upon Dr. Akl’s testimony that a person having ordinary skill in the art would understand the claims to impose such a relationship. *Id.* at 15–16 (citing Ex. 2010 ¶¶ 50–52). Dr. Akl points to Figure 4 of the ’105 patent, highlighting that a call is routed via the PSTN to the telephone network at step 404 and a pre-call notification is sent to the handset with a bridge number at step 408. Ex. 2010 ¶ 53. Dr. Akl states that “[t]he pre-call information relates to the specific incoming call because it includes a bridge telephone number that can be dialed by the handset to connect to the previously received incoming call.” *Id.*

Petitioner argues that Dr. Akl was “unable to explain what ***information*** the pre-call information allegedly includes that relates to the incoming call.” Pet. Reply 4 (citing Ex. 1102 (Akl Dep.), 96:6–11). Patent Owner responds by pointing to Dr. Akl’s statement that the bridge telephone number is “relating to an incoming call.” PO Sur-reply 5 (citing Ex. 1102, 108:18–109:8). On this matter, Dr. Akl’s testimony clearly indicates that “the claim itself is stating that a bridge telephone number is part of a said pre-call information.” Ex. 1102, 109:1–3, 24–25.

Petitioner argues that the Figure 4 example relied upon by Patent Owner and Dr. Akl for their position is merely one non-limiting example provided by the ’105 patent. *Id.* at 5. On this matter, Dr. Akl’s testimony clearly indicates that Figure 4 is “an embodiment that’s illustrated giving you a flow of the steps.” Ex. 1102, 114: 18–20. Dr. Akl further indicated that certain lines in column 6 of the ’105 patent, although describing Figure

4, were not considered in his declaration because "the embodiment that would be consistent with the [claimed] order is what's shown in Figure 4." *Id.* at 113:14–17, 114:21–115:14 (referring to lines 43–44); *see also id.* at 115:4–14 (stating, "I have not provided opinions on those two lines"). Dr. Akl's opinion is circular on this point; i.e., that the claims require an order because an order is indicated by portions of the disclosure, and only those portions are relied upon because they present an order. By considering only "parts of the specification that's consistent with the claim language," rather than the entirety of the patent disclosure, Dr. Akl's opinion is not informative as to whether the entirety of the disclosure would lead one having ordinary skill in the art to understand that the claims must proceed in the order set forth in Figure 4.

Patent Owner further argues that "the Reply does not identify any examples in the specification that do not follow this order, and there are none." PO Sur-reply 5. At oral argument, Patent Owner acknowledged the existence of a second embodiment in which people are invited to a conference call through transmission of an assigned bridge telephone number to be used in a future conference call, but argued that the second embodiment was "not relevant to the claims at all" because it is not "receiving an incoming call directed to a secondary number, which is what the claims are about," Tr. 100:1–20. However, whether the conference call embodiment shows an alternate order is not dispositive, because limitations from a described embodiment are not read into a claim even where that is the only embodiment described in the specification. *Am. Acad. Of Sci Tech. Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004 ("We have cautioned against reading limitations into a claim from the preferred embodiment described in the specification, even if it is the only embodiment described, absent clear

disclaimer in the specification"). We determine that the record does not indicate that the Figure 4 embodiment, and only Patent Owner's interpretation of that embodiment, necessitates an ordering requirement.

Petitioner argues that the "pre-call" information, in the form of a bridge telephone number, may relate to multiple calls because the disclosure of the '105 patent mentions "calls," in the plural, to the bridge telephone number. Pet. Reply 6 (citing Ex. 1001, 6:2–4). Petitioner argues that Patent Owner's preferred construction, requiring a bridge number to be newly sent for each call, is consequently at odds with that disclosure in the '105 patent. *Id.* at 7. Patent Owner argues that this description of "calls" to the bridge number "is clearly indicating that *any call* to the bridge number is routed to the switch," and does not relate to the claimed pre-call information because pre-call information is not discussed at that part of the patent disclosure. PO Sur-reply 6–7.

In our Decision on Institution, we did not reach a firm construction of the term, and invited further briefing. Dec. on Inst. 14–15. Patent Owner does not assert that this construction affects Petitioner's "first way" obviousness assertions. PO Resp. 31. After consideration of the post-Institution briefing, we agree with Patent Owner that Petitioner's "second way" obviousness assertions rely upon a lack of ordering in claims 1 and 2 such that the transmitting of pre-call information may occur prior to the receiving on an incoming call (Pet. Reply 3); therefore, the term "pre-call information" requires construction to resolve the controversy.

The "general rule [is that], '[u]nless the steps of a method [claim] actually recite an order, the steps are not ordinarily construed to require one.'" *Mformation Techs., Inc. v. Research In Motion Ltd.*, 764 F.3d 1392, 1398 (Fed. Cir. 2014). As discussed above, we do not find the asserted

claims, read in light of the specification,[5] to require that the pre-call information having a bridge number be transmitted after a call to a secondary number is made. The plain language of the claim requires that the pre-call information include a bridge number "for connecting the handset to the incoming call at the switch"; i.e., information to be used with respect to the incoming call recited in limitation [1.d]. The transmission of the pre-call information may therefore be at any time such that its contents (the bridge number) may be used with respect to the recited incoming call. Consequently, we do not adopt Patent Owner's proffered construction.

3. "for connecting the handset"

Patent Owner argues that the bridge telephone number must be capable of being used by the handset to connect to the specific incoming call previously received in step [1.d]. Patent Owner responds that "the intrinsic evidence is clear that it is the handset that uses the bridge number." PO Response 19–22 (citing Ex. 2010 ¶¶ 59–60; Ex. 1001, Fig. 4, 5:66–6:4, 6:48–65, 6:67–7:6); PO Sur-reply 7 (citing Ex. 2010 ¶¶ 58–60). Patent Owner argues that this limitation is distinct from that of limitation [1.i] because "limitation [1.i] is optional, the bridge telephone number may not actually be used." PO Resp. 20.

Petitioner argues that the phrase "a bridge telephone number ***for*** connecting the handset to the incoming call" does not require any particular component to perform the connecting. Pet. Reply 7. Petitioner further argues that limitation [1.i] recites that the handset calls the switch using the bridge telephone number, and limitation [1.g] would be duplicative of [1.i]

[5] The prosecution history does not provide any facts helpful to this determination. *See* Ex. 1003.

(where claim 1 is practiced with alternative step [1.i]) under Patent Owner's construction. Pet. Reply 7. Patent Owner responds that limitation [1.i] provides the additional limitation of how the number is used; i.e., calling the switch. PO Sur-reply 8.

In its proposed construction, Patent Owner would require the bridge telephone number to be "used by the handset." However, the claim requires only that the bridge telephone number is "for connecting the handset." The claim does not specify that the handset uses or must be capable of using the telephone number. Although Patent Owner points to an example in the '105 patent specification in which the handset calls the switch using the bridge telephone number, that example instead supports claim limitation [1.i]. PO Resp. 19–21. Because the claim is not limited to the [1.i] alternative, the claim does not require the handset to use the bridge telephone number. The record does not reflect that absent limitation [1.i], the specification clearly limits "for connecting the handset" to a handset-only capability. *See Am. Acad. Of Sci Tech. Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004 ("We have cautioned against reading limitations into a claim from the preferred embodiment described in the specification, even if it is the only embodiment described, absent clear disclaimer in the specification"). Consequently, we do not apply Patent Owner's proposed construction, and we agree with Petitioner that limitation [1.g] requires only that the telephone connection between handset and incoming call use the bridge telephone number.

D. Obviousness over Backhaus and Logan

Petitioner asserts that claim 1 is unpatentable under § 103 as obvious over Backhaus and Logan. Patent Owner provides arguments and evidence against these assertions.

Upon consideration of Petitioner's explanations and the totality of evidence in the complete trial record, we are persuaded that Petitioner has shown, by a preponderance of the evidence, that claim 1 is unpatentable under § 103 as obvious over Backhaus and Logan.

1. Backhaus (Ex. 1005)

Backhaus relates to routing calls between two telecommunications devices: a subscriber device associated with a primary service and a second line service ("SLS"), and a third party device. Ex. 1005 ¶ 9. An SLS platform is interposed between the service providers of the two devices. *Id.* When a third party device places a call to the SLS of the subscriber device, the call is instead routed to the SLS platform, which redirects the call to the primary number of the subscriber, based on mapping from a local database. *Id.* ¶ 10. That mapping may then be saved on the subscriber device. *Id.* Figure 1 illustrates a configuration of devices according to the invention:

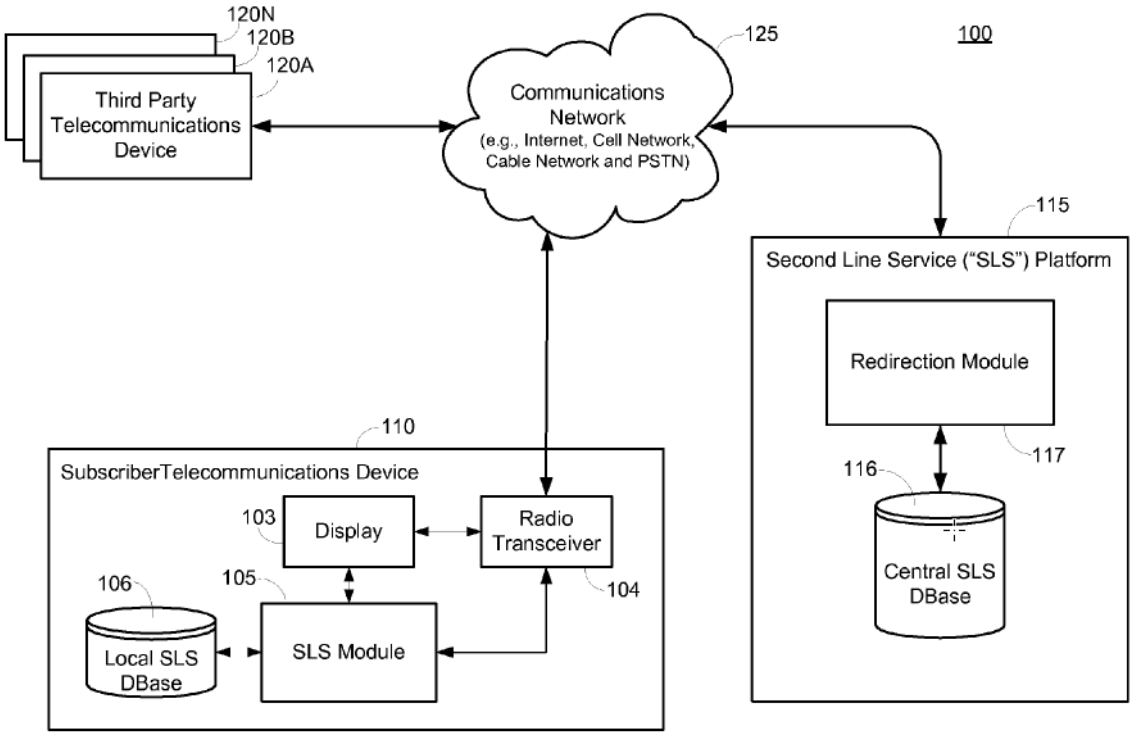

Figure 1 portrays a third party telecommunications devices 120A, 120B, and 120C communicating with communications network 125, which may be an Internet, Cell Network, Cable Network or PSTN. *Id.* at Fig. 1. The communications network 125 communicates with an SLS Platform, containing a central SLS database 116 and redirection module 117. *Id.* The communications network 125 also communicates with a subscriber telecommunications device 110, which has a local SLS database 106, SLS module 105, display 103, and radio transceiver 104.

2. Logan (Ex. 1015)

Logan relates to forwarding phone calls to virtual phone numbers. Ex. 1015, code (57). The user's cellular telephone receives phone calls associated with virtual phone numbers based upon user-specified preferences. *Id.*

3. Analysis of Claim 1

We begin our analysis of Petitioner's obviousness contentions with Petitioner's assertions as to claim 1.

[1.pre] A method of providing telephone service, comprising:

Petitioner asserts that this limitation, to the extent limiting, is described by Backhaus. Pet. 6. Petitioner points to Backhaus's description of routing calls between two telecommunication devices, where the call routing is facilitated by using a relationship number. *Id.* at 6–7 (citing Ex. 1005 ¶¶ 9, 30, Fig. 1; Ex. 1002 ¶ 58). Patent Owner does not dispute that Backhaus discloses the preamble of claim 1. On this record, Petitioner shows sufficiently that Backhaus teaches the preamble of claim 1.[6]

[6] Because Petitioner presents evidence that the prior art discloses the recitations in the preamble of claim 1, we need not determine whether the preamble is limiting.

[1.a] automatically storing electronic information that indicates an association of a secondary telephone number and a primary telephone number with a telephone handset in a computer memory associated with a server;

Petitioner asserts that this limitation is described by Backhaus. Petitioner points to Backhaus's description of associating a primary and secondary telephone number with telephone handset 110. *Id.* at 8 (citing Ex. 1005 ¶¶ 29, 31). Petitioner points to Backhaus's SLS Master ID Table 305 as containing that association in a stored form in a computer memory 116 associated with a server 205. *Id.* at 9–12 (citing Ex. 1005 ¶¶ 42, 69, 71–72, Fig. 3A; Ex. 1002 ¶¶ 71–72). Patent Owner does not dispute that Backhaus teaches this limitation of claim 1. On the complete trial record, Petitioner shows sufficiently that Backhaus teaches this limitation [1.a].

[1.b] automatically storing electronic information that indicates a selection of call processing rules for the primary telephone number in the computer memory;

[1.c] automatically storing electronic information that indicates a selection of call processing rules for the secondary telephone number in the computer memory;

Petitioner asserts that these limitations are described by Backhaus in view of Logan. *Id.* at 12. Petitioner asserts that Backhaus describes call processing rules for the primary phone number in the form of a voicemail service or message service that responds when a subscriber elects not answering a call. *Id.* (citing Ex. 1005 ¶¶ 35, 68, 73). Petitioner asserts that Logan provides user-specified preferences that cause a server to forward calls either to the user's cellphone 140 or to a voicemail database. *Id.* at 12–14, 19–20 (citing Ex. 1015 ¶¶ 26–27, Fig. 1). Petitioner points to Logan's description that the user's preferences may be specified for each of a base number and virtual number associated with the cellphone 140; i.e., its

primary number and secondary number. *Id.* at 14, 19–20 (citing Ex. 1015 ¶¶ 5, 11, 27–29, 39, 43, 46, 55, 79).

Petitioner asserts that a person having ordinary skill in the art would have been motivated to implement Logan's server-based call processing features in Backhaus. Petitioner asserts that Logan's features would permit Backhaus's server 205 to provide voicemail and preset responses to unanswered calls even when the subscriber's handset 110 is unable to do so. *Id.* at 16–17 (citing Ex. 1002 ¶ 81). Petitioner also asserts that it would have been obvious to use Logan's teaching of providing responses for both the primary and secondary numbers, because Logan describes such features as "highly desirable," and would allow the subscriber to better manage calls. *Id.* at 17–18 (citing Ex. 1015 ¶¶ 24, 40, 43; Ex. 1002 ¶ 82).

Petitioner further asserts that, because it was well known to implement such features on a server associated with a telecommunication device, and because Backhaus's SLS platform provides features for both primary and secondary numbers, a person having ordinary skill in the art would have expected success in such combination. *Id.* at 18 (citing Ex. 1008 ¶¶ 158–159, 164; Ex. 1015 ¶¶ 25–38, 50, 71; Ex. 1002 ¶ 83).

Patent Owner argues that neither Backhaus nor Logan, alone or in combination, teach storing primary call processing rules at a server memory. PO Resp. 33. Patent Owner argues that Backhaus only teaches call processing rules for a SLS number, i.e., the secondary number. *Id.* (citing Ex. 1005 ¶ 68). Patent Owner argues that Logan likewise relates to "calls dialed to the virtual[i.e., ***secondary***] phone numbers." *Id.* at 34–35 (quoting Ex. 1015 ¶ 26; citing Ex. 1015 ¶¶ 5, 11, 27–28, 38–39, 43, 46, 55). Patent Owner further alleges that although Logan describes that the cellphone

MNC 140 receives calls to both the base and virtual numbers, "a teaching about the handset receiving calls does not disclose anything about whether and what rules may be stored on a server memory." *Id.* at 34–35 (citing Ex. 2010 ¶ 102).

Petitioner responds to this argument by pointing to Backhaus's statement that "***similar*** features and services associated with the subscriber's primary number" may be provided by the SLS service. Pet. Reply 16 (citing Ex. 1005 ¶ 68). Petitioner further points to Logan's association of both base and virtual numbers with its cellphone, drawing an analogy to Backhaus's primary and SLS numbers. *Id.* at 18 (citing Pet. 13–14). Petitioner points to Logan's description that its user may control the forwarding of calls to both the base and the virtual number. *Id.* (citing Ex. 1015 ¶ 11, claim 9; Pet. 14–15). Petitioner further points to Logan's description of a system server being notified of which calls the user desires to receive. *Id.* (citing Ex. 1015 ¶ 29; Pet. 14–15). Petitioner also points to Dr. Akl's testimony that Logan's server routes calls based on a user's preference "whether it's base or virtual." *Id.* at 18 (citing Ex. 1102, 104:11–18).

Petitioner's assertions are supported by the record. In particular, Dr. Akl agrees that call processing rules apply to both the base and virtual numbers in Logan. Ex. 1102, 104:15–18 (stating, "the user preference can provide the time where, if a call is outside that time, it's going to go to voicemail and not ring any number, whether it's base or virtual."). Dr. Akl further agrees that it is the server that performs the actions set by the call processing rules. *Id.* at 104:9–11 (stating, "the server is going to send the call to a voicemail if it's received outside a permitted time."). On the

complete trial record, Petitioner shows sufficiently that Backhaus in view of Logan teaches limitations [1.b] and [1.c].

> *[1.d] receiving an electronic indication of an incoming call to the secondary telephone number at the server, said electronic indication of an incoming call being received from a switch associated with the server;*

Petitioner asserts that Backhaus does not explicitly describe such indication, but that it must receive it. Pet. 21. Petitioner asserts that Backhaus describes its SLS platform 115 as including an SLS server 205 configured to received calls directed to and from a second line number associated with the subscriber handset 110. *Id.* (citing Ex. 1005 ¶ 39). Petitioner asserts that a person having ordinary skill in the art would understand that, because components in telecommunications networks "must indicate (that is, signal) certain information to each other to coordinate themselves for providing services," Backhaus's server 205 receives an electronic signal of such incoming calls. *Id.* (citing Ex. 1011, 5–6). Petitioner further points to Backhaus's use of the called SLS number to identify a relationship number. *Id.* at 21–22 (citing Ex. 1005 ¶ 67).

Petitioner further points to Backhaus's use of a PSTN as necessarily including signal switching points, including a local switch that communicates with the server. *Id.* at 22 (citing Ex. 1002 ¶¶ 92–93; Ex. 1004 ¶ 4; Ex. 1011, 62–63, 81). Petitioner asserts that because Backhaus's network 125 (containing the local switch) routes the incoming call to the SLS number, the local switch necessarily receives the incoming call directed to the SLS number before routing the same to the SLS server 205 and SLS platform 115. *Id.* at 24 (citing Ex. 1002 ¶ 94). Patent Owner does not dispute that Backhaus teaches this limitation of claim 1. On this record, Petitioner shows sufficiently that Backhaus teaches limitation [1.d].

> *[1.e] automatically accessing the call processing rules for the secondary telephone number under the control of the server responsive to the receipt of the electronic indication of the incoming call to the secondary telephone number;*
>
> *[1.f] automatically handing the incoming call in accordance with the accessed call processing rules for the secondary telephone number;*

Petitioner asserts that Backhaus in view of Logan teaches these limitations. Petitioner asserts that Logan describes processes for executing a user's call forwarding preference in response to receiving an incoming call. *Id.* at 25–27 (citing Ex. 1015 ¶¶ 42–44; Ex. 1002 ¶¶ 96–97). Petitioner further asserts that these processes may be specified and executed for each of the base and virtual number. *Id.* at 28–29 (citing Ex. 1015 ¶¶ 11, 44; Ex. 1002 ¶ 99). Patent Owner does not dispute that Backhaus in view of Logan teaches these limitations of claim 1. On the complete trial record, Petitioner shows sufficiently that Backhaus in view of Logan teaches limitations [1.e] and [1.f].

> *[1.g] transmitting pre-call information via a data channel to the handset under the control of the server, said pre-call information including a bridge telephone number for connecting the handset to the incoming call at the switch;*

Petitioner asserts that Backhaus describes this limitation in two ways. Pet. 30–34 (discussing the "first way"), 34–36 (discussing the "second way"). We determine that Petitioner has shown limitation [1.g] to be taught under either the "first way" or the "second way" assertions.

(1) "first way"

In its "first way" assertions, Petitioner contends that Backhaus discloses assigning a relationship number (the recited bridge telephone number) to a third party the first time that third party calls the subscriber's secondary number. Pet. 30. Petitioner continues that Backhaus's system

creates a relationship number and stores that number in the Subscriber Relationship ID Table in the SLS database. *Id.* at 30–31 (referencing Ex. 1005 ¶¶ 42, 53, 54, Fig. 3A; Ex. 1002 ¶¶ 103–104).

Petitioner contends that, once the relationship number is created and stored, the SLS platform calls the subscriber. *Id.* at 32. Petitioner contends that Backhaus discloses that the SLS platform may send a "specially encoded message" to the application running on the subscriber's phone, with the message including the relationship number and the primary number of the third party. *Id.* at 32–33 (referencing Ex. 1005 ¶¶ 10, 55, 64). Petitioner contends that a person having ordinary skill in the art "would have understood that the encoded message corresponds to the claimed 'pre-call information' because it is transmitted before the voice call is connected between the calling third party and the called subscriber." *Id.* at 33 (referencing Ex. 1005 ¶¶ 52, 56; Ex. 1002 ¶ 106).

Petitioner contends that Backhaus describes IP-based communications to be used for information between the SLS module 105 on TD 110 and the SLS platform 115 and that "Backhaus explains that the IP-based communication 'minimize[s] temporal delays in allocating and acquiring relationship numbers between an SLS module 105 and an SLS platform 115.'" Pet. 33–34 (referencing Ex. 1005 ¶ 73)). Petitioner contends that, as such, a person having ordinary skill in the art would have found transmitting the information over an IP-based communications channel beneficial. *Id.* Petitioner contends that a person having ordinary skill in the art "would have had the skill in implementing, and expectation of success in achieving, the above implementation as Backhaus and Logan already use IP-based communications for transmitting data between TD 110 and SLS

platform 115." *Id.* (referencing Ex. 1005 ¶¶ 29, 32, 73, claim 15; Ex. 1015 ¶ 5, claim 2; cross-referencing the Petition's analysis for limitation [1.b]).

Patent Owner argues that the information is not transmitted via a data channel because Backhaus teaches it to be transmitted as "the calling party field of the call"; i.e., as part of the same channel as the voice channel. PO Resp. 23–25. This argument is unavailing, however, because we rely on Petitioner's alternate argument that it would have been obvious to use a separate IP-based communication channel.

As to that alternate, IP-based channel assertion, Patent Owner argues that a person having ordinary skill in the art would not have found a separate channel obvious because (1) Backhaus does not explicitly mention IP-based communication for any specific transmission of information and Petitioner does not explain why it would have been obvious for this particular transmission to be made on a data channel, and (2) disclosure of a data channel is made by Backhaus only in relation to outgoing calls, not incoming calls as claimed. PO Resp. 25–30 (citing Ex. 2010 ¶¶ 80–86; Ex. 1005 ¶¶ 62, 69, 71, 73). Dr. Akl testifies that

> [i]f the relationship number was split into a separate transmission[] and transmitted faster than the call itself, as the Petition appears to suggest, then the relationship number could arrive before the call. In this case, the handset would have a notification relating to a call that is not ready to accept, which would be a bad experience for the user because the user would be able to see the incoming call notification but would be unable to accept it.

Ex. 2010 ¶ 89; PO Resp. 30.

We determine that the record supports Petitioner's assertion that it would have been obvious for the relationship number to be transmitted by an IP-based data channel. Dr. Akl's testimony does not satisfactorily account

for the fact that the scenario discussed in Backhaus is the case where a third party caller calls for the first time, and a relationship number is created. *See* Ex. 1005 ¶ 53. If the pre-call information arrives before the call, then the SLS module on the phone can use the information to display the caller information once the call is connected. Such an approach may avoid the situation where "unknown caller" needs to be displayed, for example, and thereby minimize delay. *See id.* ¶ 55. Moreover, Backhaus suggests Petitioner's proposed use. *See id.* ¶ 73 ("Such channels can be used in setting up the relationship databases, sharing information between the SLS module 105 and the SLS platform 115."). We further determine that Backhaus extends its teaching of data channels "to establish a communication path between the SLS module 105 and the SLS platform 115 for the purposes of supporting the SLS service"; i.e., as a general teaching not merely limited to outgoing calls. Ex. 1005 ¶ 73.

(2) "second way"

In its "second way" assertions, Petitioner points to Backhaus's description of a subscriber making an outgoing call to a third party where no relationship number has previously been associated with that number. Pet. 34. In such a situation, the SLS module on the handset 110 requests and receives a new relationship number from the SLS platform 115 on the server. *Id.* (citing Ex. 1005 ¶¶ 71, 74). Petitioner asserts that the received relationship number is "pre-call" information because it occurs prior to any incoming call from that third party. *Id.* at 35. Petitioner further asserts that the relationship number will then be used by the SLS platform 115 to call the handset 110 in subsequent incoming calls from that caller. *Id.* at 36 (citing Ex. 1005 ¶¶ 52–55). Petitioner further asserts that the relationship number is taught to be received by a data channel because Backhaus

describes that communications between handset 110 and platform 115 used in setting up the relationship databases may occur by various mechanisms including IP-based interaction, cellular data, and WiFi. *Id.* at 36 (citing Ex. 1005 ¶¶ 72–73; Ex. 1002 ¶ 109).

Patent Owner first argues that Backhaus and Logan do not teach that the bridge telephone number is "for connecting the handset to the incoming call at the switch." PO Resp. 22. Patent Owner argues that Backhaus merely forwards an incoming call to an SLS number to the handset, and that the handset does not use the bridge telephone number to connect with the call. *Id.* Patent Owner further argues that the relationship number is only provided as information in the calling party field of the call, and that the call is instead placed to the "primary number." *Id.* (citing Ex. 1005 ¶¶ 54–55; Ex. 2010 ¶ 74).

Patent Owner's arguments on this issue are based on its proposed construction, which we do not adopt, determining instead that limitation [1.g] requires only that the telephone connection between handset and incoming call use the bridge telephone number. *Section II.C.3.* Petitioner shows that Backhaus's relationship number is used by its SLS platform to call the handset in incoming calls; i.e., to connect the handset to the incoming call at the switch. Pet. 36 (citing Ex. 1005 ¶¶ 52–55). This assertion is supported by Backhaus at the cited sections, and as illustrated in Figure 4B, which shows the relationship number being used by the SLS platform at step 422 in a series of steps to connect an incoming call. Ex. 1005, Fig. 4B (corresponding to Petitioner's "second way," i.e., later-in-time, call to a calling number previously associated with a relationship number as detailed at paragraphs 63 and 66–67); *id.* ¶ 49 (corresponding to

Petitioner's "first way," i.e., that "by leveraging the relationship numbers, an SLS service provider may insert itself into the middle of a call between a third party TD 120 and a subscriber TD 110"); *see* Pet. 30, 35–36. Consequently, we do not agree that Backhaus and Logan fail to teach that the bridge telephone number is for connecting the handset to the incoming call at the switch.

Patent Owner next argues that Petitioner's "second way" relies on an outgoing call in Backhaus for the limitation "transmitting pre-call information via a data channel to the handset under the control of the server," but does not contend that this specific transmission occurs "via a data channel." PO Resp. 30–31 (citing Pet. 25; Ex. 1005 ¶ 74). Patent Owner acknowledges that Backhaus generally teaches that the server and handset may communicate by data channels, but argues that Backhaus does not teach that, and Petitioner does not explain why, data channel communication would have been obvious for this specific transmission. *Id.* at 31. Patent Owner references (nonspecifically) its prior discussion of outgoing calls, consisting of arguments that Backhaus describes outgoing calls as a separate embodiment from incoming calls, that outgoing calls are described in paragraphs 72–74 which are "impossible to reach in connection with an outgoing call." PO Resp. 5–7, 28, 31 (citing Backhaus ¶ [0074]). Patent Owner further argues that Petitioner does not address the antecedent basis of the information in step [1.d] for its "second way," arguing that it requires the information to be transmitted before, and specifically related to, the claimed incoming call. PO Resp. 31–32.

With respect to the combinability of Backhaus's outgoing call and incoming call teachings in its "second way," Petitioner asserts Backhaus to

teach a pre-call bridge telephone number information being transmitted to the handset under the control of the server, in the form of the SLS platform server transmitting a new relationship number to the SLS module on the handset, which may occur during an outgoing call to a third party from the handset prior to any incoming call from that third party, but for use in future incoming calls from that third party. Petitioner's assertions are supported by Backhaus, which explicitly describes the SLS database 116 as a central point of reference for both incoming and outgoing calls. Ex. 1005 ¶¶ 63, 67, 125–126. Backhaus describes that for each incoming call, the SLS platform determines if the calling phone number and SLS number are associated, and that such association may be made during an outgoing call. *Id.* In that manner, Backhaus teaches that the decisions to be made in handling an incoming call may depend on whether a relationship number was obtained in a prior outgoing call. Moreover, because Petitioner relies upon stored information in Backhaus for providing the relationship number, we find persuasive its argument that such information may be gathered during an outgoing call, stored at server SLS database 116, and then provided to SLS module 105. We further agree that under such a reading of Backhaus, the previously gathered relationship number is specifically related to a future incoming call that is associated with that relationship number.

With respect to the relationship number being communicated by a data channel, the portion of Backhaus cited by Petitioner discloses that "an IP-based interaction over the TD's data service may be used" for "sharing information between the SLS module 105 [of the subscriber TD 110] and the SLS platform 115." Ex. 1005 ¶ 73; *see* Pet. 33. And Backhaus explains that one piece of information shared between the SLS platform and the

subscriber TD is a relationship number. Ex. 1005 ¶ 72 ("the SLS module 105 may communicate with the SLS platform 115 . . . to obtain a relationship number"); *id.* ¶ 74 ("[T]he determined next available relationship number is returned to the SLS module 105 of the subscriber TD 110."). Thus, Backhaus refers to a specific transmission—the sharing of a relationship number between the SLS platform and the subscriber TD—as occurring via an IP data channel.

Patent Owner further argues that Petitioner's declarant is merely conclusory because it is substantially identical to the Petition, because it contains no explanation or analysis beyond that in the Petition, because it is inconsistent or unclear on certain points, and because "Dr. Lin repeatedly fail[ed] to answer whether he relied on any standards given by Petitioner's counsel and therefore should be accorded little weight." PO Resp. 45–55. In this decision, we have accorded Dr. Lin's testimony weight consistent with the supporting evidence. Consequently, Patent Owner's argument is unavailing.

For the above described reasons, we determine that Petitioner has sufficiently shown Backhaus to teach limitation [1.g].

> *[1.h] receiving, at the server via the data channel, an electronic indication of a selection of a call processing rule for handling the incoming call to the secondary telephone number, or.*

Petitioner asserts that the combination of Backhaus and Logan teach stored user call processing rules, which have been received from the user through Logan's Internet-based application. Pet. 36–37 (citing Ex. 1015 ¶¶ 11, 29, 46, 55, claim 2). Petitioner points to Logan's description of server 130 receiving user-specified preferences from MNC 140 via the Internet for handling calls directed to the virtual number (the "secondary telephone

number"). *Id.* (citing Ex. 1002 ¶¶ 112–113). Petitioner alternately asserts that its Backhaus-Logan combination responds to incoming calls with processing rules that are triggered by the current time, the user's location, or by the activation of a handset command that is communicated to the server. Pet. 38–39 (citing Ex. 1015 ¶¶ 61–69). Patent Owner does not explicitly contest Petitioner's assertions for limitation [1.h].

We find Petitioner's alternate assertion to be supported by the record. Logan teaches that its user cellphone (termed a "Multi-Number Cellphone", or "MNC"), communicates user preferences with the server via an Internet-based application. Ex. 1002 ¶ 119; Ex. 1015 ¶ 21, claim 2. Moreover, Backhaus teaches that "any mechanism that can be used to establish a communication path between SLS module 105 and the SLS platform 115 for the purposes of supporting the SLS service can be utilized." Ex. 1005 ¶ 73. Backhaus further provides an open-ended list of such purposes. *Id.* Consequently, Petitioner has sufficiently shown that Backhaus in view of Logan teaches limitation [1.h].

[1.i] establishing a voice channel connection between the handset and the switch as a result of the handset calling the switch using the bridge telephone number

Petitioner argues that, because limitations [1.h] and [1.i] are recited in the alternative, Petitioner need not show that limitation [1.i] is taught because Petitioner has shown that limitation [1.h] is taught. Pet. 39. Patent Owner agrees that these limitations are recited in the alternative, and that limitation [1.i] is optional. PO Resp. 19. We agree that limitation [1.i] need not be shown because Petitioner has sufficiently shown that limitation [1.h] is taught by the applied combination of references.

Determination

In view of the foregoing, we determine that Petitioner has sufficiently shown, by a preponderance of the evidence, that each element of claim 1 has been taught or suggested by Backhaus in view of Logan, and that a person having ordinary skill in the art would have reason to combine Backhaus and Logan as suggested by Petitioner, and would have a reasonable expectation of success in doing so.

E. Obviousness over Backhaus and Winbladh

Petitioner provides detailed assertions that the combination of Backhaus and Winbladh teaches the invention of claims 2–4 and 6–11. Pet. 3. Patent Owner argues that this combination would not have been made by a person having ordinary skill in the art, that the combination does not show it would have been obvious to use the same switch for receiving and connecting the call, and that the combination does not teach the handset to accept the incoming call by making a bridge call as claimed. PO Resp. 36–44. We begin with a summary of Winbladh and analysis of claim 2.

1. Winbladh

Winbladh addresses the problem of interconnecting standard-type telephones via the Internet. Ex. 1020 ¶ 6. Figure 1 portrays Winbladh's system:

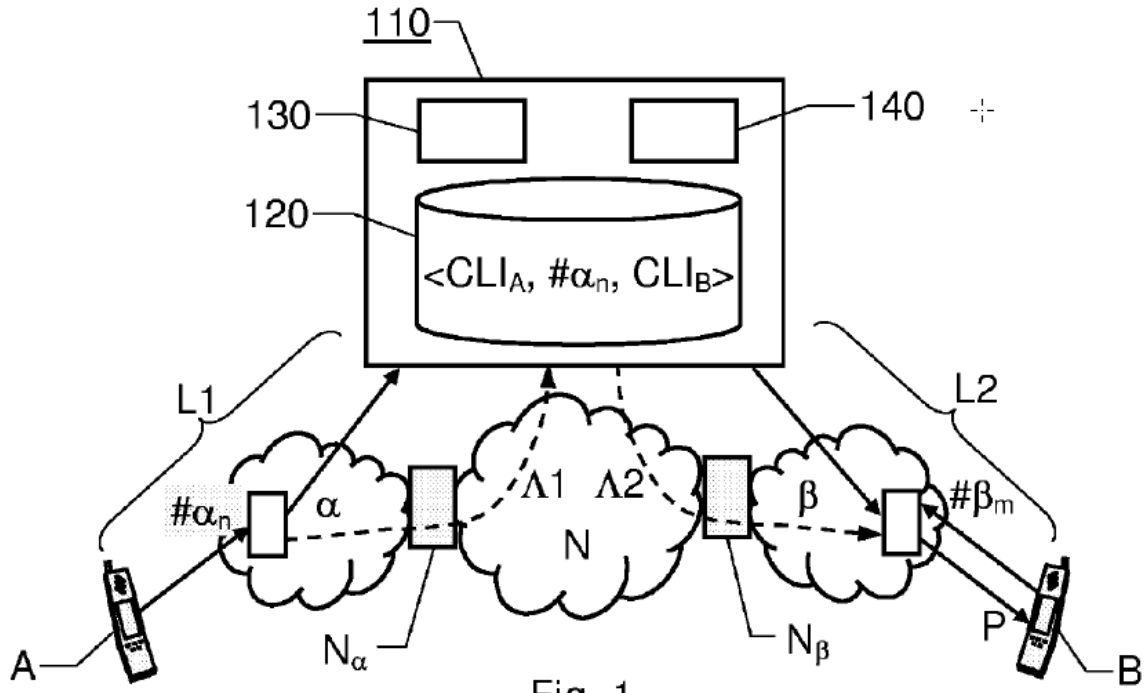

Fig. 1

In Figure 1, terminals A and B, which may be fixed or mobile phones, are connected through respective networks N_α and N_β to host resource 110, which is adapted to set up a bi-directional connection between the terminals after having routed the call. *Id.* ¶ 32. After setting up this connection, terminal B may send a termination request, causing host resource 110 to disconnect only the connection to terminal B. *Id.* ¶ 33. Terminal B may then place a return call to a predefined telephone number, causing host resource 110 to establish a bi-directional secondary connection between terminals A and B. *Id.* The predefined telephone number is associated with the connection between terminal A and host resource (shown in Figure 1 as "L1"), and may be either a fixed number for all of B's requests to the system, or may be assigned on a call-by-call basis. *Id.* ¶ 34. As further shown in Figure 1, the host resource 110 is associated with a database that stores one entry for each unique combination of the first network identity CLI_A, second network identity CLI_B, and first common telephone number

#α_n to be dialed by each first terminal A to reach each first terminal B. *Id.* ¶ 30.

2. Analysis of Claim 2

> *[2.pre] A method for providing telephone service to a telephone handset having a primary telephone number assigned to the telephone handset, wherein at least a secondary telephone number is associated with the primary telephone number assigned to the telephone handset, the method comprising:*

Petitioner asserts that, to the extent limiting, the preamble is taught by Backhaus. Pet. 40. Petitioner refers to its assertions for limitation [1.a] to show that Backhaus teaches a method for providing telephone service to a telephone handset having a primary number assigned thereto. *Id.* Petitioner asserts that Backhaus has a secondary number associated thereto, citing Table 305, which illustrates a "2nd Line Number" associated with the first line number of an individual subscriber. *Id.* at 40–41 (citing Ex. 1005, Fig. 3A). Patent Owner does not dispute that Backhaus discloses the preamble of claim 2. On this record, Petitioner shows sufficiently that Backhaus teaches the preamble of claim 2.[7]

> *[2.a] A) in response to an incoming call to the secondary telephone number received by a switch, retrieving, by a server from a database, a first bridge telephone number to be used for completion of the incoming call to the secondary telephone number, wherein the first bridge telephone number is*

[7] Because Petitioner presents evidence that the prior art discloses the recitations in the preamble of claim 2, we need not decide whether the preamble is limiting.

> *associated with the switch such that calls to the first bridge telephone number are automatically routed to the switch; and*

Petitioner asserts that Backhaus teaches this limitation. Petitioner points to its discussion of limitation [1.d] to show that a local switch in network 125 necessarily receives an incoming call to the SLS number before routing that call to the SLS server 205/SLS platform 115. *Id.* at 42, 45–46.

Petitioner further points to both its "first way" and second way" assertions for limitation [1.g] to teach the claimed retrieving, by a server from a database, of a first bridge telephone number for completion of an incoming call. *Id.* at 42–45. In its "first way" discussion of limitation [1.g], Petitioner asserts that Backhaus describes that in response to an incoming call from an *unknown* caller, the SLS platform 115 assigns the next available relationship number ("first bridge telephone number") that associates the incoming, SLS, and primary numbers. *Id.* at 42–43 (citing Ex. 1005 ¶¶ 53–55, 64–66; Ex. 1002 ¶ 126). To assign that number, SLS platform first queries the server database 116 to determine the next available number. *Id.* at 43 (citing Ex. 1005 ¶ 71). Petitioner further asserts that the incoming call containing the relationship number is then connected to the SLS number of the handset 110. *Id.* at 44–45 (citing Ex. 1005 ¶¶ 54–56, 64–66).

In its "second way" discussion of limitation [1.g], Petitioner asserts that for an incoming call from a *known* caller the SLS platform 115 "queries the central SLS database 116 for the relationship number," and then calls the subscriber's TD 110 using the relationship number. *Id.* at 45 (referencing Petitioner's "second way" argument).

Patent Owner disputes that the combined references teach the entirety of the "switch" limitations in [2.a] and [2.b], and we address that argument in the next section.

> *[2.b] B) transmitting, from the server to the telephone handset via at least one data channel, pre-call information including the first bridge telephone number, whereby the pre-call information allows the telephone handset to accept the incoming call to the secondary telephone number by making a first bridge call using the first bridge telephone number to connect the incoming call to the telephone handset via the switch.*

Petitioner asserts that Backhaus teaches transmitting, from SLS platform 115 (server) to TD 110 (handset), information including the relationship number. Pet. 46 (citing to its discussion of limitation [1.g]). Petitioner references both its "first way" and "second way" assertions.

In its "first way," Petitioner asserts that an incoming call from an unknown third party causes the SLS platform to assign a relationship number and then establish the second half of the call, where the calling party field contains the relationship number. *Id.* at 47 (citing Ex. 1005 ¶¶ 52–56, 64–66).

In its "second way," Petitioner points to Backhaus's description of assigning a new relationship number to a third party number when the subscriber at TD 110 desires to call a new third party number. *Id.* at 34 (citing Ex. 1005 ¶ 71), 46 (citing Ex. 1002 ¶¶ 134–135). In such a situation, the SLS platform 115 transmits the requested relationship number to TD 110. *Id.* at 34 (citing Ex. 1005 ¶¶ 71, 74), 46 (citing Ex. 1002 ¶¶ 134–135). Petitioner asserts that this is "pre-call" information because this transmission occurs when the subscriber desires to place an outgoing call to a new third party number, and therefore occurs prior to future incoming calls from that party. *Id.* at 35. Petitioner asserts that this information is transmitted by a data channel because it occurs prior to the connection of the outgoing voice call to the third party, and because IP-based communications are taught by

Backhaus for establishing the relationship between various numbers and associated databases. *Id.* (citing Ex. 1005 ¶¶ 55–56, 72–73).

Petitioner relies on Winbladh to provide the additional teaching that "the pre-call information allows the telephone handset to accept the incoming call to the secondary telephone number by making a first bridge call using the first bridge telephone number to connect the incoming call to the telephone handset via the switch." *Id.* at 46–47. Specifically, Petitioner points to Winbladh's description of establishing a telephone connection between wireless phone terminals A and B, in which a host resource 110 routes a call from terminal A to terminal B based on caller identity and a common telephone number $\#\alpha_n$ to set up a bi-directional primary connection between the terminals. *Id.* at 47 (citing Ex. 1020 ¶¶ 28–29, 31–32, 37–51). Petitioner points to a situation in which terminal B desires that the call occur at a local rate, which would require terminal B to be connected at a different phone number. *Id.* at 48–49 (citing Ex. 1020 ¶¶ 56–62). In this situation, terminal B disconnects the call, causing the host 110 to maintain the host-terminal A connection for a certain period of time. *Id.* (citing Ex. 1020 ¶¶ 33–34). If terminal B places a return call to a predefined telephone number $\#\beta_r$ before that time period expires, host 110 establishes a secondary connection between the terminals. *Id.* at 49 (citing Ex. 1020, Fig. 4, ¶¶ 33–34, 56–62).

Petitioner characterizes its combination as follows:

> in the modified Backhaus system, a POSITA would have understood the disclosed "pre-call information" containing the relationship number ("first bridge telephone number") would allow TD 110 ("telephone handset") to accept the incoming call to its SLS number [] by making a first bridge call to SLS platform 115 using the relationship number to connect the incoming call

> to TD 110, similar to as described in Winbladh, so as to reconnect with the first leg of the call (between the caller and SLS platform 115) via the local switch in network 125 ("switch").

Id. at 51–52 (citing Ex. 1002 ¶¶ 145–146). Petitioner further points to Winbladh teaching data channel communication prior to establishment of the call through its host resource "notify[ing] the second terminal B" the second common telephone number that permits the local rate for the call-back. *Id.* at 50–51 (citing Ex. 1020 ¶ 51).

Petitioner relies on Backhaus for teaching that the incoming call is made to a secondary telephone number, as set forth for limitation [2.pre]. Pet. 40–41 (citing Ex. 1005, Fig. 3A (associating a subscriber with a primary number and a second line number)).

Petitioner asserts that a person having ordinary skill in the art would have been motivated to use Winbladh's call-back feature when implementing Backhaus because incoming calls that are long-distance or international are relatively expensive, and that the call-back feature provides a connection at a local-call rate, thus reducing the cost of the call. Pet. 40–41 (citing Ex. 1020 ¶¶ 2, 12, 18, 56).

Patent Owner argues against this motivation to combine Winbladh and Backhaus because they have "vastly disparate scopes." PO Resp. 37. Patent Owner argues that Petitioner has not explained how or why Winbladh's system for managing end to end connections between terminals on wireless phone networks would be combined with Backhaus's SLS platform used only in connection with calls to and from virtual secondary lines, which handles calls to the primary number "as is understood in the art." *Id.* at 36–37 (citing Ex. 1005 ¶ 33; Pet. 47–48). Patent Owner argues that such a combination might seem to require controlling the entire

telephone system, and that Petitioner has not explained how that would be consistent with Backhaus's description of its system designed to work with "cross-carrier" users who have different providers for primary and secondary lines. *Id.* at 37 (citing Ex. 1005 ¶ 122); Sur-reply 17–18. Patent Owner further argues that the Petition does not articulate its specific combination. Pet. 37. Patent Owner further argues that Winbladh would not be one of the best alternatives to be applied for such cost savings. *Id.*; Sur-reply 19 (citing Ex. 2010 ¶ 117).

Patent Owner additionally argues that such a cost reduction justification makes no sense in the context of Backhaus's placement of a call to the user's handset because it would result in receiving the call on one switch and connecting with a bridge number on a second switch. PO Resp. 41–42 (citing Ex. 2010 ¶¶ 122–124). Patent Owner argues that if this call were to be reversed through the teachings of Winbladh, then the reversed call would require the handset to call the switch, which would also be a long distance call. *Id.* at 38 (citing Ex. 1005 ¶ 54). Patent Owner further argues that the proposed combination would require relationship numbers that are local, and therefore, would require the user to stay within that local zone. *Id.* at 39. Patent Owner argues that the nature of the carrier may determine whether a particular number is local. *Id.*

In response, Petitioner argues that Patent Owner cites only to Dr. Akl for support for its contentions, and that Dr. Akl does not in his declaration, and could not under deposition, "explain why Winbladh allegedly requires replacing conventional telephone networks/routing." Pet. Reply 19 (citing PO Resp. 36–41; Ex. 2010 ¶¶ 109–120; Ex. 1102, 121:10–124:6).

We do not agree with Patent Owner's arguments. Patent Owner's arguments concerning whether the asserted combination would be consistent

with Backhaus's capability of working with "cross-carrier" users, and whether teachings other than Winbladh would be preferentially considered, improperly frame the obviousness question. Patent Owner and Dr. Akl emphasize that Winbladh uses a "'host resource' that manages multiple call legs," arguing that is different from Backhaus's "more limited" system that uses a "conventional call routing system." PO Resp. 36–37 (citing Ex. 2010 ¶ 113). However, the obviousness question is "whether the relevant artisan would be motivated to make the combination to arrive at the claims' actual limitations," not whether such a combination would preserve all aspects of either Backhaus or Winbladh. *See Axionics, Inc. v. Medtronic, Inc.*, 2023 WL 4410686 (Fed. Cir. July 10, 2023). Moreover, "it's not necessary to show that a combination is 'the *best* option, only that it be a *suitable* option." *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 800 (Fed. Cir. 2021) (quoting *PAR Pharm., Inc. v. TWI Pharms, Inc.*, 773 F.3d 1186, 1197–98 (Fed. Cir. 2014)). Further, "[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference [but rather] what the combined teachings of those references would have suggested to those of ordinary skill in the art." *Facebook, Inc. v. Windy City Innovations, LLC*, 973 F.3d 1321, 1343 (Fed. Cir. 2020) ("*KSR* does not support [the] theory that a person of ordinary skill can only perform combinations of a puzzle element A with a perfectly fitting puzzle element B"). Here, Petitioner's combination provides for a pre-call transmission of local telephone number $\#\beta_r$, and would logically provide advantage in those situations in which a long distance number was originally used for the connection; i.e., those situations for which Winbladh is purposed. We further note that a combination need not work in all situations for a person having ordinary skill in the art to find it advantageous. *See Intel*

Corp. v. Qualcomm Inc., 21 F.4th at 796 (determining that the relative tradeoffs should be weighed when a benefit occurs during only some operating conditions).

Petitioner's assertions as to the commonalities of the telephone endpoint connections; i.e., the claimed accepting of an incoming call, between Backhaus and Winbladh are supported by the record. As pointed out by Dr. Lin, Winbladh, while utilizing the internet, connects its telephone connection between terminals by using "a wireless network . . . adapted to carry circuit switched telephone traffic." Ex. 1002 ¶ 139. As attested by Dr. Akl, Backhaus routes calls "by way of communications network 125," which may include networks such as "cellular networks, PSTNs, cable networks, and the Internet." Ex. 2010 ¶ 109. Although Patent Owner points to Winbladh's host resource managing call legs as a distinction from Backhaus, Backhaus also uses an intermediary, the SLS platform, to process the call. Ex. 1002 ¶ 137 (citing Ex. 1005 ¶ 54). Thus, the scopes of Backhaus and Winbladh both address switched telephone traffic connections between two terminals, and are not "vastly disparate" in a manner pertinent to the claimed invention.

Although Patent Owner argues that the conventional phone network functionality of Backhaus teaches away from Winbladh due to Winbladh's additional routing functionality, Patent Owner shows only that Winbladh has such additional functionality. Patent Owner's cited support indicates that Backhaus provides service across conventional phone networks, has cross carrier functionality, and needs no coordination with the subscriber's primary service provider. PO Resp. 37. However, Dr. Akl's testimony indicates that Winbladh's host resource, not the carrier or the service provider, provides the added functionality. Ex. 2010 ¶ 113. Thus, the

record does not reflect that applying Winbladh's host resource in the system of Backhaus would affect any of these alleged purposes of Backhaus. Moreover, although Backhaus's reliance on conventional phone networks involves different connectivity than Winbladh's routing, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives [where] such disclosure does not criticize, discredit, or otherwise discourage the solution claimed." *See In re Fulton*, 391 F.3d 1195, 1199 (Fed. Cir. 2004). We find nothing the record to support a finding that Backhaus, which already interposes additional call routing functionality beyond conventional telephone routing, criticizes, discredits, or otherwise discourages still further call routing functionality.

Patent Owner's argument against Petitioner's cost-savings motivation is based on a contention that "[i]n Backhaus, the second call leg is placed from the switch to the user's handset. . . . If the Backhaus second call leg is long distance, then reversing the direction of the call and having the handset call the switch instead would also be long distance." PO Resp. 38 (citing Ex. 1005 ¶ 54; Ex. 2010 ¶ 115). This argument is unsupported by the record. The pertinent switch is the switch local to the handset that is receiving the call and accepting the call by making a first bridge call via the switch. Ex. 1001, claim 2. In Petitioner's combination, this is the switch that is local to the receiving handset; there is no indication in Backhaus that the local switch is a long-distance connection from the receiving handset, and Winbladh explicitly teaches that the connection from the handset via the call-back connection is through a local call, using a home telephone network adapted to carry circuit switched telephone traffic. Ex. 1020 ¶¶ 28, 56. Winbladh does not describe its cost-saving reconnection as requiring a different switch for the initial connection, but instead shows the original leg

L2 and the callback leg L2' as connecting the same points (host resource 110 and terminal B). Ex. 1020 ¶¶ 55–58. As discussed for claim 1, Petitioner relies on the local switch adjacent to the server. Pet. 22–25, 51 ("in the modified Backhaus system . . . [the handset would] accept the incoming call to its SLS number . . . so as to reconnect with the first leg of the call . . . via the local switch in network 125 ("switch"). Moreover, Dr. Akl does not describe why a different switch is required. Ex. 2010 ¶¶ 122–124. Thus, the evidence of record does not indicate that a call from the receiving handset to the switch, in Petitioner's asserted combination, would necessarily be a long-distance call such that any return call placed to the same switch must also be a long-distance call, or that different switches would be required to derive the benefit of Winbladh's teachings.

Furthermore, although Dr. Akl asserts that in Backhaus, the cost of calls is based on the physical path between terminals such that the cost would be the same in both directions, that does not preclude Winbladh's method of cost savings. In Winbladh, although the first and second terminals are unchanged in location, and are accessed through respective home telephone networks, cost savings accrue due to a disconnection of the long-distance connection and reestablishment of the connection between the same terminals. *See*, e.g., Ex. 2010 ¶¶ 68–69 (citing Ex. 1020 ¶¶ 56–58, Abstr.); Ex. 1002 ¶ 143. Dr. Lin attests that Winbladh's reconnection at the local call rate occurs "irrespective of the geographical distance separating these devices." Ex. 1002 ¶ 143 (quoting Ex. 1020 ¶ 18).

Nor do we find availing Patent Owner's argument that Petitioner has not articulated its combination. PO Resp. 37. As indicated above, Petitioner has explained how its proposed combination of Winbladh and Backhaus would be made. *Supra* at 36–37; Pet. 51–52. Taking into account the

above-discussed similarities between Winbladh and Backhaus, including Petitioner's discussion of how both use an intermediary to route telephone calls, we determine that Petitioner has sufficiently articulated its proposed combination.

In view of the complete trial record, for the foregoing reasons we are persuaded that a person having ordinary skill in the art would have sufficient reason to combine Winbladh and Backhaus in the manner asserted by Petitioner.

Petitioner asserts that a person having ordinary skill in the art would have had a reasonable expectation of success in the applying Winbladh's teachings when implementing Backhaus's system and method because they both route calls between two terminals through a server associated with a database, and provide a bridge number via pre-call information. Pet. 48, 50–51 (citing Ex. 1002 ¶ 139). Patent Owner argues that Petitioner does not show "what modifications are necessary, how to perform those modifications, or why a [person of ordinary skill in the art] would expect those specific modifications to be successful." PO Resp. 41. However, we find sufficient similarity in the call routing technologies of Winbladh and Backhaus to be persuaded that a person having ordinary skill in the art would have had a reasonable expectation of success in implementing Winbladh's call-back features into Backhaus's secondary line system.

For the above described reasons, we determine that Petitioner has shown, by a preponderance of the evidence, that claim 2 would have been obvious over the combined teachings of Backhaus and Winbladh.

3. Analysis of Dependent Claims

Patent Owner argues against Petitioner's assertions for claims 3, 4, and 6–11 only on the same reasoning as advanced against Petitioner's

assertions for claim 2. PO Resp. 44. We disagree with those reasons for the reasons expressed above. Consonant with Petitioner's burden to prove unpatentability, we evaluate Petitioner's assertions for claims 3, 4, and 6–11.

a) Claim 3

Claim 3 depends from claim 2,[8] further reciting that:

> the incoming call is from a calling telephone number; and the first bridge telephone number stored in the database and to be used for completion of the incoming call is associated with the switch and the calling telephone number, such that calls to the first bridge telephone number from the calling telephone number are automatically routed to the switch.

Ex. 1001, 10:56–62.

Petitioner points to its discussion of claim limitation [2.a] for these limitations. Pet. 52–53. Petitioner further asserts that Backhaus's relationship number is associated with the calling third party telephone number because its SLS platform 115 assigns a relationship number associated with the third party's number. *Id.* at 53 (citing Ex. 1005 ¶¶ 37–38, 51–54, 71–74). Petitioner further asserts that the local switch in network 125 necessarily and automatically receives calls directed to the relationship number before routing them to the SLS platform 115. *Id.* (citing its discussion of limitation [2.a]; Ex. 1005 ¶¶ 32, 49, 59–61).

Petitioner's assertions are supported by the record. Backhaus indicates that "any number calling the subscriber" is translated into the appropriate relationship number, which the SLS module uses to access the SLS platform to complete the calls. Ex. 1005 ¶ 49. Thus, the call is made to the bridge telephone number via translation of the called number to the

[8] The dependency of claims 3–6 was changed from claim 1 to claim 2 by a certificate of correction. Ex. 1001, 18.

relationship (bridge) telephone number. For the above described reasons, we determine that Petitioner has shown, by a preponderance of the evidence, that the teachings of Backhaus and Winbladh would have rendered obvious claim 3.

b) Claim 4

Claim 4 depends from claim 2, further reciting that:

> wherein the pre-call information transmitted in B) from the server to the telephone handset via the at least one data channel includes display information to cause a display on the telephone handset of at least one of: a calling telephone number of the incoming call; a calling party name; a calling party location; and the secondary telephone number.

Ex. 1001, 10:63–11:4.

Referencing its assertions for limitation [2.b], Petitioner asserts that claim 4 is taught by Backhaus's calling party field of the incoming call signal, which results in the display of the calling party's CLID (Calling Line ID) and name. Pet. 54–55 (citing Ex. 1005 ¶¶ 64–65; Ex. 1002 ¶ 152) (Petitioner's "first way" assertions). Petitioner's assertions are supported by the cited sections of Backhaus. *See, e.g.*, Ex. 1005 ¶ 65 (stating, "the third party CLID is displayed to the subscriber"). Consequently, Petitioner has shown by a preponderance of the evidence that claim 4 would have been obvious over the combination of Backhaus and Winbladh.

c) Claim 6

Claim 6 depends from claim 2, further reciting:

> C) receiving, by the switch, the first bridge call by the telephone handset to the first bridge telephone number and; D) in response to C), bridging, by the switch, the first bridge call to the first bridge telephone number with the incoming call to the secondary telephone number so as to connect the incoming call to the telephone handset.

Ex. 1001, 11:18–24.

Petitioner asserts that these limitations are taught by the Backhaus-Winbladh combination. Pet. 55–56. Petitioner relies on its assertions for limitation [2.a] to teach the receiving step. *Id.* at 55. Petitioner further asserts that because Backhaus's TD 110 "uses a relationship number to access the SLS platform 115 *over the telephone network 125*," a person having ordinary skill in the art would have understood that the local switch of network 125 "necessarily bridges/connects" the bridge call from TD 110 to SLS platform with the incoming call from the third party to the SLS platform. *Id.* at 56 (citing Ex. 1005 ¶ 49).

Petitioner's assertions are supported by the record. *See, e.g.*, Ex. 1005 ¶ 49 ("The application run by the SLS module 105 on subscriber TD 110 uses a relationship number to access the SLS platform 115 over the telephone network 125. The SLS number is used by the redirection module 117 of the SLS platform 115 to complete calls with any external party calling the subscriber's SLS number"). Consequently, Petitioner has shown by a preponderance of the evidence that claim 6 would have been obvious over the combination of Backhaus and Winbladh.

d) Claim 7

Claim 7 depends from claim 6, and further recites:

> in D), the switch connects the incoming call to the telephone handset via a voice channel; and a voice channel protocol for communications between the switch and the telephone handset over the voice channel includes at least one of a CDMA standard, a GSM 30 standard, a 3G standard, a 4G standard and an LTE standard.

Ex. 1001, 11:26–32.

For claim 7, Petitioner asserts that Backhaus teaches these limitations through its use of the PSTN, which includes "a voice switch" that "processes voice-band traffic" and that the telecommunication devices are wireless devices that may operate under 3G and 4G standards. Pet. 56–57 (citing its discussion for limitation [1.d]; Ex. 1005 ¶ 29). The record supports Petitioner's assertions. *See* Section II(D)(3); Ex. 1005 ¶ 29 (describing communication devices having 3G and 4G capabilities). Consequently, Petitioner has shown by a preponderance of the evidence that claim 7 would have been obvious over the combination of Backhaus and Winbladh.

e) Claim 8

Claim 8 depends from claim 6, and further recites:

> the incoming call to the secondary telephone number is from a first contact telephone number; the first bridge telephone number to be used for completion of the incoming call is associated with the switch and the first contact telephone number; and the method further comprises:
>
> E) receiving, by the server from the telephone handset via the at least one data channel, an outgoing call request to a first contact telephone number to be called by the telephone handset using the secondary telephone number;
>
> F) retrieving, by the server from the database, a second bridge telephone number to be used for completion of an outgoing call from the secondary telephone number to the second contact number, wherein the second bridge telephone number is associated with the switch such that calls to the second bridge telephone number are automatically routed to the switch;
>
> G) transmitting, by the server to the telephone handset via the at least one data channel, outgoing pre-call information including the second bridge telephone number, whereby the outgoing pre-call information causes the telephone handset to automatically make a second bridge call to the second bridge telephone number; and

> H) bridging, by the switch, the second bridge call to the second bridge telephone number with the outgoing call from the secondary telephone number to the first contact telephone number so as to connect the outgoing call to the telephone handset.

Ex. 1001, 11:34–62.

Petitioner asserts that Backhaus describes an incoming call in which SLS platform associates a new relationship number with the calling third party number and the subscriber's primary number and SLS number, listing the calling third party as the contact in the central SLS database. Pet. 57–59 (citing Ex. 1005 ¶ 64; Ex. 1002 ¶ 158). Petitioner further points to Backhaus's handset 110 providing to the SLS platform server a request for a new relationship number along with the third party number it desires to call. *Id.* at 61 (interpreting, without comment by Patent Owner, limitations [8.c] and [8.f] as requiring an outgoing request to a second (not a first) contact telephone number to be consistent with limitation [8.d]). Petitioner relies on its assertions for limitation [1.g] to show that Backhaus teaches that the request for a relationship number may be made using an "IP-based interaction." Pet. 61–62, 64–65 (citing Ex. 1005 ¶¶ 72–73; Ex. 1002 ¶¶ 162, 166–67). Petitioner further asserts that the SLS platform server queries its database to retrieve the next available relationship number for the subscriber's SLS number from which the outgoing call is made. *Id.* at 63–64 (citing Ex. 1005 ¶¶ 70–71). Relying on its assertions for limitation [2.a], Petitioner asserts that the relationship numbers are used to access the SLS platform over the telephone network that includes the local switch; when the subscriber dials the third party number, the SLS module 105 of subscriber's TD 110 translates the called third party number to the relationship number and calls the relationship number to connect to SLS platform 115. *Id.* at 64–

65 (citing Ex. 1005 ¶¶ 49, 59–61). Petitioner asserts that the claimed bridging of the second bridge call is described by Backhaus, in which network 125 routes the call to the SLS platform as the first leg of the call, calls the third party number as the second leg of the call, and connects the two legs of the call through network 125 (via the local switch therein) when the third party answers the call. *Id.* at 65 (citing Ex. 1005 ¶¶ 59–70).

The cited portions of the record support Petitioner's assertions and reasoning; consequently, Petitioner has shown by a preponderance of the evidence that claim 8 would have been obvious over the combination of Backhaus and Winbladh.

f) Claim 9

Claim 9 depends from claim 8, and further recites:

> the switch connects the outgoing call to the telephone handset via a voice channel; and a voice channel protocol for communications between the switch and the telephone handset over the voice channel includes at least one of a CDMA standard, a GSM standard, a 3G standard, a 4G standard and an LTE standard.

Ex. 1001, 11:64–12:3.

Relying on its assertions for limitations [7.a] and [7.b], Petitioner asserts that claim 9 is taught by the combination of Backhaus and Winbladh. As discussed with respect for claim 7, Petitioner's assertions are supported by the record; consequently, Petitioner has shown by a preponderance of the evidence that claim 9 would have been obvious over the combination of Backhaus and Winbladh.

g) Claim 10

Claim 10 depends from claim 8, and further recites:

> I) assigning, by the server, the second bridge telephone number associated with the switch and the first contact telephone

> number such that the combination of the primary telephone number and the second bridge telephone number is uniquely associated with the secondary telephone number and the first contact telephone number; and
>
> J) storing, by the server in the database, information that associates the second bridge telephone number with the primary telephone number, the secondary telephone number, and the first contact telephone number.

Ex. 1001, 12:4–15.

Relying on its assertions for claim 8, Petitioner asserts that Backhaus and Winbladh teach claim 10. Petitioner further asserts that Backhaus describes associating different relationship numbers for different third party contact numbers so as to form unique associations of relationship number, third party contact number, primary number, and secondary number. Pet. 69–70 (citing Ex. 1005, Fig. 3A, ¶ 53). Petitioner's assertions are supported by the record as discussed with respect to claim 8, and as shown in the relationships illustrated in Figure 3A. Consequently, Petitioner has shown, by a preponderance of the evidence, that claim 10 would have been obvious over the asserted combination of Backhaus and Winbladh.

h) Claim 11

Claim 11 depends from claim 10, and recites:

> wherein the telephone handset includes an address file comprising a plurality of contact telephone numbers including at least the first contact telephone number, and wherein:
>
> in J), the information stored in the database maps a unique combination of the secondary telephone number and one contact telephone number of the plurality of contact telephone numbers to a corresponding combination of the primary telephone number and a unique bridge telephone number for each contact telephone number of the plurality of contact telephone numbers.

Ex. 1001, 12:16–27.

Relying on its assertions for limitation [8.b], Petitioner points to Backhaus's central SLS database storing multiple third party numbers. Pet. 70–71. Relying on its assertions for limitation [10.a], Petitioner points to Backhaus's SLS platform creating a relationship uniquely associating the claimed combination of numbers in the central SLS database. Pet. 73–74. Petitioner's assertions are supported by the record as discussed with respect to claim limitations [8.b] and [10.a], and as shown in the data and the relationships illustrated in Figures 3A and 3B. Consequently, Petitioner has shown, by a preponderance of the evidence, that claim 11 would have been obvious over the asserted combination of Backhaus and Winbladh.

F. Obviousness of Claim 5 over Backhaus, Winbladh, and Logan

Claim 5 depends from claim 2, and further recites:

> C) receiving, at the server from the telephone handset via the at least one data channel, user input information indicative of a user input to the telephone handset regarding call handling choices for the incoming call; and
>
> D) processing, by the server, the user input information, wherein D) comprises at least one of: delivering a responsive text message; dropping the incoming call; and responding to the incoming call with a custom voice message.

Ex. 1001, 11:6–16.

Petitioner asserts that the additional limitations of claim 5 would have been obvious over the addition of the teachings of Logan as discussed with respect to limitations [1.b] and [1.h]. Pet. 74–76. Petitioner further states that Logan teaches that the server may forward calls to a customized voicemail database on pre-established circumstances. *Id.* at 75–76 (citing Ex. 1015 ¶¶ 26–27, 30). Petitioner's assertions are supported by the record as discussed with respect to claim 2 and claim limitations [1.b] and [1.h], and the cited description in Logan. As determined with respect to claim 1,

Petitioner has shown sufficient reasons to combine the teachings of Logan with Backhaus. Consequently, Petitioner has shown, by a preponderance of the evidence, that claim 5 would have been obvious over the asserted combination of Backhaus, Winbladh, and Logan.

G. Obviousness based on Taylor

Petitioner asserts three additional grounds against claims 1–11, on the same assertions discussed above with the addition of Taylor's teaching of a PSTN interface configured to interface with computer telephony server to receive and process calls. Pet. 76–79 (citing Ex. 1007 ¶ 8, Fig. 1A). Because Petitioner has shown that claims 1–11 are unpatentable based on the asserted grounds discussed above, we do not reach these additional asserted grounds. *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) ("The Commission . . . is at perfect liberty to reach a 'no violation' determination on a single dispositive issue."); *Boston Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App'x 984, 990 (Fed. Cir. 2020) (recognizing that "[t]he Board has the discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims").

III. CONCLUSION AND ORDER

For the foregoing reasons, Petitioner has shown by a preponderance of the evidence that claims 1–11 of the '105 patent are unpatentable. Our conclusions are summarized in the table below.

Claims	35 U.S.C. §	Reference(s) / Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1	103(a)	Backhaus, Logan	1	
2–4, 6–11	103(a)	Backhaus, Winbladh	2–4, 6–11	
5	103(a)	Backhaus,	5	

		Winbladh, Logan		
1[9]	103(a)	Backhaus, Logan, Taylor		
2–4, 6–11[10]	103(a)	Backhaus, Winbladh, Taylor		
5[11]	103(a)	Backhaus, Winbladh, Logan, Taylor		
Overall Outcome			1–11	

Accordingly, it is

ORDERED that Petitioner establishes by a preponderance of evidence that challenged claims 1–11 are unpatentable;

and

FURTHER ORDERED that, because this is a Final Written 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.[12]

---

[9] We do not reach this ground as discussed in Section II(G).
[10] We do not reach this ground as discussed in Section II(G).
[11] We do not reach this ground as discussed in Section II(G).
[12] Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding. *See* 84 Fed. Reg. 16654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. §§ 42.8(a)(3), (b)(2).

FOR PETITIONER:

Naveen Modi
Joseph E. Palys
Daniel Zeilberger
Howard Herr
Puja Patel
PAUL HASTINGS LLP
naveenmodi@paulhastings.com
josephpalys@paulhastings.com
danielzeilberger@paulhastings.com
howardherr@paulhastings.com
pujapatel@paulhastings.com

FOR PATENT OWNER:

Louis C. Campbell
Juan C. Yaquian
WINSTON & STRAWN LLP
LLcampbell@winston.com
JYaquian@winston.com