

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAP AMERICA, INC.,
Petitioner,

v.

ISIX IP LLC,
Patent Owner.

IPR2024-00615
Patent 6,308,178 B1

Before SHEILA F. McSHANE, MONICA S. ULLAGADDI, and
ELIZABETH J. REAGAN, *Administrative Patent Judges*.

REAGAN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. § 42.4

I. INTRODUCTION

SAP America, Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–5, 7–10, 19, and 23–25 (“the challenged claims”) of U.S. Patent No. 6,308,178 B1 (Ex. 1001, “the ’178 patent”). Paper 1 (“Pet.”). Petitioner filed a Declaration of Dr. Henry Houh (Ex. 1002, “the Houh Declaration”) in support of the Petition. ISIX IP LLC (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). With our authorization (Ex. 3001), Petitioner filed a Reply to Patent Owner’s Preliminary Response (Paper 7, “Prelim. Reply”), and Patent Owner filed a Sur-Reply to Petitioner’s Reply to Patent Owner’s Preliminary Response (Paper 8, “Prelim. Sur-Reply”).

We have authority, acting under the designation of the Director, to determine whether to institute an *inter partes* review under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). Institution of an *inter partes* review requires that “the information presented in the petition and . . . any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a) (2018). “When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.108(a) (2023).

For the reasons set forth below, upon considering the briefing and the evidence of record, we determine that the information presented in the Petition establishes a reasonable likelihood that Petitioner will prevail with respect to at least one challenged claim. Accordingly, we institute an *inter partes* review on all of the challenged claims of the ’178 patent based on all of the asserted grounds of unpatentability identified in the Petition.

II. BACKGROUND

A. Real Parties in Interest

SAP America, Inc. identifies itself as the real party in interest for Petitioner. Pet. 89. ISIX IP LLC identifies itself as the real party in interest for Patent Owner. Paper 3, 2 (Patent Owner’s Mandatory Notices).

B. Related Matters

Petitioner states that “the ’178 patent is or was involved” in the following cases: *ISIX IP LLC v. International Business Machines Corporation*, Case No. 6:22-cv-00201, filed February 25, 2022 in the Western District of Texas; *ISIX IP LLC v. Boomi, LP et al.*, Case No. 6:22-cv-00275, filed March 14, 2022 in the Western District of Texas; and *ISIX IP LLC v. SAP America, Inc.*, Case No. 2:23-cv-00237, filed May 26, 2023 in the Eastern District of Texas. Pet. 89. Patent Owner also identifies *ISIX IP LLC v. SAP America, Inc.*, Case No. 2:23-cv-237-JRG (E.D. Tex.), as a related matter. Paper 3, 2.

C. The ’178 Patent

The ’178 patent is titled “System for Integrating Data Among Heterogeneous Systems” and issued on October 23, 2001. Ex. 1001, codes (45), (54).¹

¹ Although the ’178 patent is expired, the Board has jurisdiction with respect to expired patents in *inter partes* review proceedings. See *Google LLC v. Robocast, Inc.*, IPR2023-00593, 2023 WL 6122895, at 4 (PTAB Sept. 18, 2023) (citing *Apple, Inc. v. Gesture Tech. Partners, LLC*, IPR2021-00922, Paper 10 at 17–18 (PTAB Nov. 29, 2021); *Apple, Inc. v. Gesture Tech. Partners, LLC*, IPR2021-00921, Paper 24 at 36–38 (PTAB Dec. 5, 2022)); see also Prelim. Reply at 1 (noting, by Petitioner, that the ’178 patent is expired).

The '178 patent is directed to “a configurable software system for providing migration of data among heterogeneous applications without requiring the development of code to accommodate the specific requirements of the heterogeneous applications.” Ex. 1001, 1:7–11. The '178 patent describes that the “integration system . . . provides a flexible, end-to-end integration solution that manages all mapping, validation, and synchronization of data among heterogeneous source and destination applications within an organization and among the applications of multiple organizations.” *Id.* at 2:35–40. Specifically, the integration system includes an “active component (or engine) that performs the underlying communication and data processing functions, and a repository of information used by the active component relating to the characteristics of the source and destination applications,” in which the “functionality of the system is expandable through use of modules (or cartridges) that may be added to the repository as the organization’s integration requirements expand.” *Id.* at 2:40–47. According to the '178 patent, “each module defines interface processes or instruction sets which migrate data between the source applications and a particular destination application,” and the “active component is driven by instruction sets associated with the applicable module and other information in the repository to read and process inputs from a source application and perform the transfer of data to a destination application.” *Id.* at 2:53–60.

Figure 1, reproduced below, is a block diagram depicting an installation of the integration system in an environment. Ex. 1001, 3:32–33.

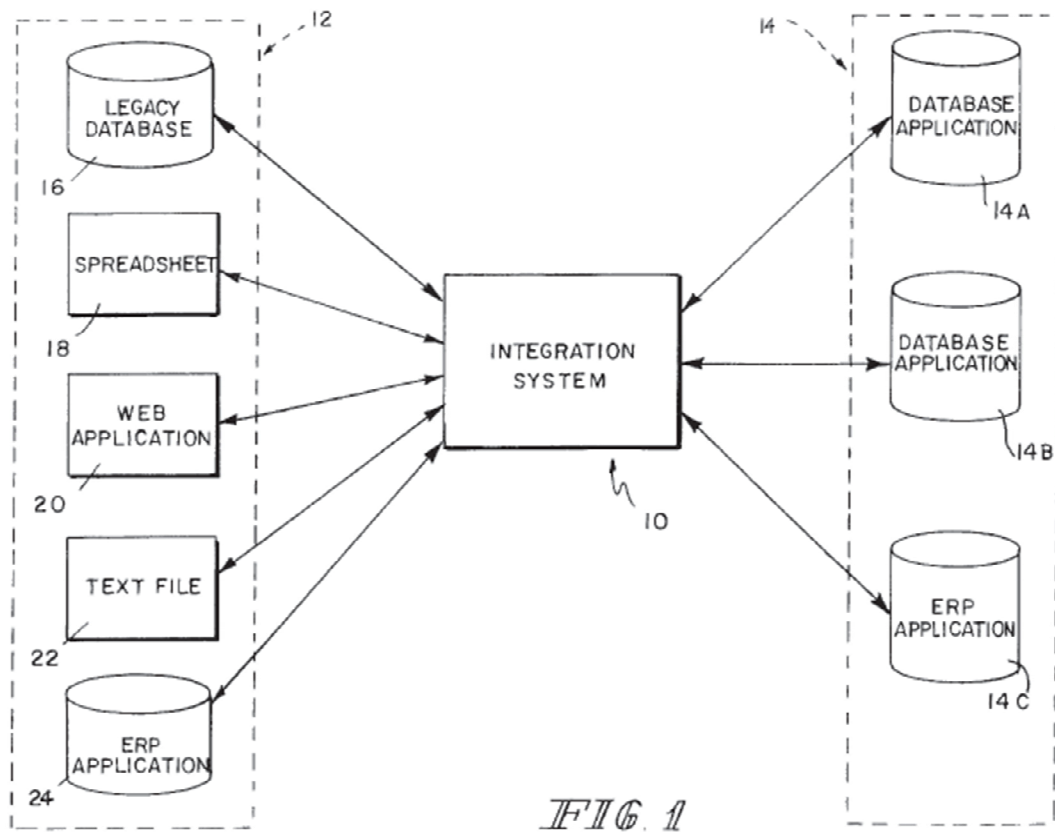
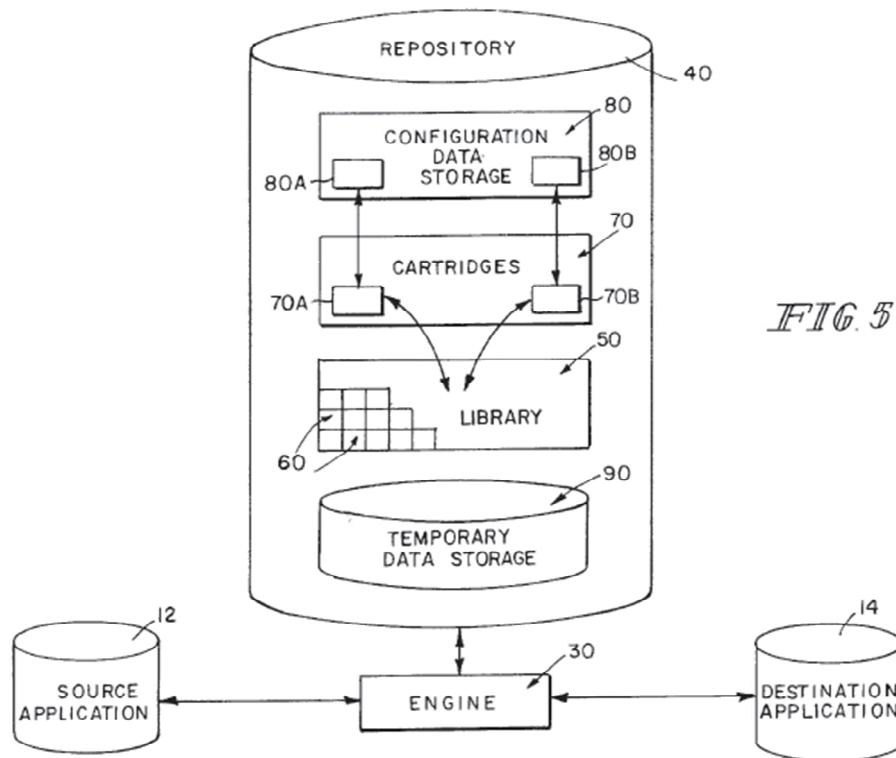


Figure 1, above, shows an installation of integration system 10 to provide for migrating data among a variety of heterogeneous applications, i.e., source applications 12, and a variety of database applications, i.e., destination applications 14. *Id.* at 3:53–59. Source applications 12 are shown as including any combination of legacy database applications 16, spreadsheet applications 18, web applications 20, applications containing text files 22, or ERP [Enterprise Resource Planning] applications 24. *Id.* at 4:7–10. Destination applications 14 are shown as including any combination of database applications 14A and 14B and ERP applications 14C. *Id.* at 4:10–12. With reference to Figure 1, the '178 patent describes that “[b]ecause integration system 10 is configurable to correspond to source applications 12

and provides incremental functionality to accommodate use of future destination applications 14, the system offers a flexible solution for users who desire to maintain and use the data residing in their existing source applications.” *Id.* at 4:12–17.

Figure 5, reproduced below, is a block diagram of a portion of the integration system illustrated in Figure 1. Ex. 1001, 3:38–40.



Id. at Fig. 5. Figure 5, above, shows components of integration system 10, including repository 40 and active component (engine) 30. *Id.* at 4:18–20. Active component 30 is shown as processing data migrating between source application 12 and destination application 14. *Id.* at 5:1–3. Repository 40 includes temporary data storage 90; library 50 having a plurality of individual data elements 60; a plurality of plug-in modules or cartridges 70, which, in turn, include modules 70A and 70B; and configuration data

storage 80, which, in turn, is shown as including configuration data 80A and 80B. *Id.* at 4:20–24, 4:27–4:28, 4:31–33, 6:39–48. With reference to Figure 5, the '178 patent describes that “each module 70A, 70B communicates with a portion of configuration data 80A, 80B, respectively, contained within configuration data storage 80 of repository 40, and repository library 50, containing a plurality of individual data elements 60.” *Id.* at 6:44–48. Communications between various components in Figure 5, as identified above, are shown with bi-directional arrows extending between the relevant components.

D. Illustrative Claim

Petitioner challenges claims 1–5, 7–10, 19, and 23–25 of the '178 patent. Pet. 15. Claims 1 and 23 are independent claims. Claim 1 is illustrative and reproduced below with bracketed numeric identifiers provided by Petitioner:

[1.0] A system for integrating data among heterogeneous source applications and destination applications, comprising:

[1.1] a repository of information relating to the source applications and the destination applications, the repository including a plurality of data elements each being capable of performing a discrete operation on a piece of data, and

[1.2] a first module including a plurality of instruction sets, each instruction of each instruction set activating a data element; and

[1.3] an active component connected to the repository having an input for loading data from the source applications, and an output for populating the destination applications with processed data, the active component processing the data from the source applications by activating data elements according to the plurality of instruction sets in the module.

Ex. 1001, 9:51–67 (numeric identifiers added).

E. Asserted Grounds of Unpatentability

Petitioner asserts that the challenged claims are unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §²	Reference(s)/Basis
1, 3, 4, 7, 8	103(a)	Brann, ³
1–5, 7, 9, 10, 23–25	103(a)	Suresh ⁴
1–5, 7, 9, 10, 23–25	103(a)	Suresh, Brann
8, 19	103(a)	Suresh, Beauchamp ⁵
8, 19	103(a)	Suresh, Brann, Beauchamp

Pet. 6–9, 14–85.

In support of its unpatentability arguments, Petitioner relies on the Houh Declaration. *See* Pet. 6–9, 14–85 (citing Ex. 1002). At this stage of the proceeding, Patent Owner does not dispute that each reference qualifies as prior art. *See generally* Prelim. Resp.

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284, 285–88 (2011), revised 35 U.S.C. §§ 102 and 103 effective March 16, 2013. Because the ’178 patent has an effective filing date before the effective date of the applicable AIA amendments, *see* Ex. 1001, code (22), we apply the pre-AIA version of the statutes herein. *See* Pet. 15 (Petitioner referring to pre-AIA statutory provisions of 35 U.S.C. § 102(e)); Pet. 13 (Petitioner referring to the “earliest possible priority date” of the ’178 patent as being October 21, 1999).

³ Brann, U.S. Patent No. 5,842,205, issued Nov. 24, 1998 (Ex. 1003). Petitioner contends that Brann qualifies as prior art to the ’178 patent under 35 U.S.C. § 102(e). Pet. 15.

⁴ Suresh, et al., U.S. Patent No. 6,208,990, issued Mar. 27, 2001 (Ex. 1004). Petitioner contends that Suresh qualifies as prior art to the ’178 patent under 35 U.S.C. § 102(e). Pet. 15.

⁵ Beauchamp, et al., U.S. Pat. No. 6,621,505, issued Sept. 16, 2003 (Ex. 1006). Petitioner contends that Beauchamp qualifies as prior art to the ’178 patent under 35 U.S.C. § 102(e). Pet. 15.

III. ANALYSIS

A. *Legal Standards*

In an *inter partes* review, the petitioner has the burden from the onset to demonstrate, with particularity, the unpatentability of the challenged claim(s). *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (2012) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). At this stage of the proceeding, we determine whether the information provided in the Petition demonstrates a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of the challenged claims based on obviousness over the proposed combinations of prior art.

A patent claim is obvious, and therefore unpatentable, 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.” 35 U.S.C. § 103(a). The ascertainment of obviousness requires consideration of four 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) when in evidence, objective indicia of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).⁶

In addition, the obviousness analysis typically requires determining “whether there was an apparent reason to combine the known elements in

⁶ At this stage of the proceeding, because Patent Owner does not address objective evidence of non-obviousness, we focus solely on the first three *Graham* factors.

the fashion claimed by the patent at issue.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)); see *In re Warsaw Orthopedic, Inc.*, 832 F.3d 1327, 1333 (Fed. Cir. 2016) (citing *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1360 (Fed. Cir. 2006)). The obviousness of a patent claim is not proved “merely by demonstrating that each of its elements was, independently, known in the prior art.” See *KSR*, 550 U.S. at 418. Further, a determination of obviousness based on a combination of references requires finding “both ‘that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.’” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367–68 (Fed. Cir. 2016) (citation omitted); see *KSR*, 550 U.S. at 418.

In proving obviousness, Petitioner cannot satisfy its burden by employing “mere conclusory statements,” but “must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016); see also *In re NuVasive, Inc.*, 842 F.3d 1376, 1383 (Fed. Cir. 2016) (a finding of a motivation to combine “must be supported by a ‘reasoned explanation’” (citation omitted)).

B. Level of Ordinary Skill in the Art

The level of ordinary skill in the pertinent art at the time of the invention is a factor in how we construe the claims of a patent. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). Further, under 35 U.S.C. § 103(a), a determination of whether an invention would

have been obvious requires ascertaining the level of ordinary skill in the art at the time of the claimed invention. *Graham*, 383 U.S. at 17. The level of ordinary skill in the art at the time of the invention is a factual determination that provides a primary guarantee of objectivity in an obviousness analysis. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 1324 (Fed. Cir. 1999) (citing *Graham*, 383 U.S. at 17–18; *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991)). In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted); *see also Custom Accessories, Inc. v. Jeffrey-Allan Indus. Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986); *Orthopedic Equip. Co. v. U.S.*, 702 F.2d 1005, 1011 (Fed. Cir. 1983). The level of ordinary skill in the art may also be reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

Petitioner contends that a “POSITA,” or person of ordinary skill in the art “in the field of the ’178 patent, as of its earliest possible priority date of October 21, 1999, would have a bachelor’s degree in computer science, computer engineering, or equivalent training, and approximately two years of experience working in the computer science or engineering field, or with integration systems,” but that a “[l]ack of work experience can be remedied by additional education, and vice versa.” Pet. 13–14 (citing Ex. 1002 ¶¶ 17–20).

At this stage of the proceeding, Patent Owner does not challenge Petitioner’s definition of a person of ordinary skill in the art. *See generally* Prelim. Resp.

For purposes of this Decision, we find that Petitioner’s proposal is consistent with the ’178 patent and the asserted prior art. *See Okajima*, 261 F.3d at 1355. This proposal is also supported by the Houh Declaration. *See* Ex. 1002 ¶ 19. Accordingly, we adopt Petitioner’s proposed level of ordinary skill in the art for purposes of this Decision.⁷

C. Claim Construction

In an *inter partes* review, the Board applies the same claim construction standard as would be used by a district court in construing a patent claim in a civil action involving the validity or infringement of a patent, in which the terms of a patent claim are construed “in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b). In accordance with this standard, claim terms generally are given their plain and ordinary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and within the context of the entire patent disclosure. *See Phillips*, 415 F.3d at 1312–13. “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d

⁷ If Patent Owner disagrees with this formulation of the level of skill in the art, it must raise that disagreement in its Response. If a different level of skill would affect the outcome in this case, the parties must brief that issue as well. The failure of Patent Owner to describe how a different level of skill in the art is determinative will constitute a forfeiture of that argument. If there is a dispute regarding the level of ordinary skill in the art, then the parties are also encouraged to submit evidence, other than conclusory declarant testimony, that supports their position.

1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17); *see also Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012).

Petitioner applies the construction of claim terms from a “prior litigation asserting the ’178 patent.”⁸ *See* Pet. 14 (citing Ex. 1007 (hereinafter, “Claim Construction Order”)). Petitioner states that “Patent Owner relied on that claim construction in a prior IPR for the ’178 patent, IPR2022-01488.” *Id.* (citing Ex. 1008, 20). Petitioner states it is relying “on Patent Owner’s position applying the district court’s claim construction for the purposes of this proceeding” and that “[n]o special construction is required for other claim terms.”⁹ *Id.* Petitioner describes:

In the prior district court case, the term “data element(s)” was construed as “individual unit(s) of reusable code.” . . . The preamble was determined to be limiting. . . . Various claim elements were determined not to be interpreted as means-plus-function elements. . . . All other terms proposed for construction were given their plain and ordinary meaning.

Id. (citing Ex. 1007).

Patent Owner similarly applies “the preliminary claim constructions adopted by Magistrate Judge Gilliland of the Western District of Texas.” Prelim. Resp. 18 (citing Ex. 1007).

For purposes of this Decision, we adopt these constructions applied by Petitioner and Patent Owner. *See* Ex. 1007.

⁸ *ISIX IP LLC v. International Business Machines Corp.*, Case No. 6:22-cv-201-ADA-DTG, “Claim Construction Order,” Doc. 37, filed 01/04/23.

⁹ Petitioner states that it “accepts Patent Owner’s constructions for purposes of this proceeding only to simplify issues” and that Petitioner “reserves the right to propose alternative constructions in the corresponding District Court case.” Pet. 14, fn. 2.

In addition to these claim constructions, Patent Owner also provides interpretations of “applications” and “destination application” in response to certain positions taken by Petitioner in its Petition. *See* Prelim. Resp. 18. Patent Owner states that “[t]he ’178 patent . . . is clear that a destination application ‘may include any combination of database applications 14A, 14B and ERP [Enterprise Resource Planning] applications 14C.’” *Id.* (quoting Ex. 1001, 4:9–11). Patent Owner asserts that “the ’178 patent *never describes a database itself as a destination application.*” *Id.* (emphasis added). Further, Patent Owner states that “[t]he proper construction of an *application* is a *business application program* such as an accounting, purchasing, or human resources application. ’178 pat. at 3:64–4:1; *see also* 1:43–47 and 5:50–60. A *database* may be accessed by a destination application but is *not equivalent to a ‘destination application’* in the challenged claims.” *Id.* (emphasis added).

At this stage of the proceeding, we do not agree with Patent Owner’s views on the interpretation of “database applications,” and, more generally, “applications.” For the term “application,” Patent Owner (Prelim. Resp. 18) directs us to a portion of the ’178 patent Specification indicating that destination applications may include suites of business applications, which may include database applications. *See* Ex. 1001, 3:64–4:12; *see also id.* at Fig. 1. The Specification states that “[t]he architecture of the present invention, however, and the concepts 4088 and methodologies taught herein are equally applicable to *any database application.*” *Id.* at 4:1–4 (emphasis added). Further, the Specification states:

FIG. 1 is a block diagram illustrating an installation of an integration system 10 according to the present invention to provide for migration of data among a variety of heterogenous

applications (hereinafter collectively referred to as “source applications 12”) and *a variety of database applications (hereinafter collectively referred to as “destination applications 14”)*.

Id. at 3:53–59 (emphasis added).

In light of the Specification’s disclosures, we do not agree with Patent Owner that “database applications,” and, more generally, “applications,” should be limited to business application programs such as accounting, purchasing, or human resources applications. However, for purposes of this Decision, no additional construction of the term “application” is necessary to resolve any conflicts at this stage of the proceeding.

With regard to any additional claim terms, after reviewing Petitioner’s arguments and evidence, we determine, for purposes of this Decision, that we do not need to expressly construe any additional claim terms to resolve any controversy at this stage of the proceeding.¹⁰ *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (noting that “[t]he Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

¹⁰ If either party intends to further argue claim construction at trial, including what the plain and ordinary meaning of a term is, they should do so in a clearly designated section of their briefing, so as to expressly identify such arguments. *See, e.g.*, 37 C.F.R. § 42.104(b)(3) (content of petition); *see also* Patent Trial and Appeal Board Consolidated Trial Practice Guide, 84 Fed. Reg. 64,280, at 46, 48–45 (Nov. 2019) (available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>). Claim construction arguments should not be relegated to patentability arguments on the facts. Failure to do so will result in forfeiture of all implicit claim construction arguments.

D. Discretionary Denial under 35 U.S.C. § 314(a)

Patent Owner requests that the Board should exercise its discretion under 35 U.S.C. § 314(a) to deny institution in light of the parallel District Court litigation involving the '178 patent. Prelim. Resp. 18–25; *see* Prelim. Sur-Reply 1–2. Further, Patent Owner argues “against the inclusion of [Petitioner’s] alleged Sotera stipulation at this point in this litigation.” Prelim. Sur-Reply 2–3.

Under Section 314(a), the institution of an *inter partes* review is at the discretion of the Director, and the determination of whether to institute has been delegated to the Board under the Director’s guidance. *See* 35 U.S.C. § 314(a) (stating, “[t]he Director *may not* authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition”) (emphasis added); 37 C.F.R. § 42.108(a) (stating “the Board will authorize the review to proceed”); *cf.* *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he [USPTO] is permitted, but never compelled, to institute an IPR proceeding.”); 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”).

According to the Board’s precedential decision in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), the Board considers six non-exclusive factors, known as the *Fintiv* factors, in conducting a balanced assessment to determine whether to use its discretion to deny institution. The six *Fintiv* factors that the Board weighs are as follows:

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

Id. at 5–6. Recognizing that “there is some overlap among these factors” and that “[s]ome facts may be relevant to more than one factor,” the Board “takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.* at 6.

Further, in determining whether to discretionarily deny institution under § 314(a), the Board applies the guidance set forth in *Interim Procedure For Discretionary Denials In AIA Post-Grant Proceedings With Parallel District Court Litigation*, issued June 21, 2022 (“Guidance Memo”).¹¹ The Guidance Memo clarifies “the PTAB’s current application of *Fintiv* to discretionary institution where there is parallel litigation.” *Id.* at 2. For example, the Guidance Memo instructs the Board *not* to “discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.” *Id.*

¹¹ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

at 3 (citing *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A)); *see also id.* at 7–8.

Accordingly, the Board will not use its discretion to deny institution if a petitioner makes a stipulation as provided in *Sotera Wireless, Inc.* (hereinafter, “a *Sotera* stipulation”). However, if a *Sotera* stipulation is offered for the first time *after* the Board’s decision on whether to institute review, the stipulation is not considered. *NXP USA, Inc. v. Impinj, Inc.*, IPR2021-01556, Paper 13 at 4 (PTAB Sept. 7, 2022) (precedential).

In its Preliminary Reply, Petitioner included Section III, entitled, “SOTERA STIPULATION.” *See* Prelim. Reply 7. In this “SOTERA STIPULATION” section of its Preliminary Reply, Petitioner states that “discretionary denial is unwarranted” but “*if the Board disagrees and nevertheless determines that discretionary denial is warranted, then* Petitioner stipulates to not pursue any invalidity ground on that patent that was raised or that could have been reasonably raised in this IPR in the associated litigation.” *Id.* (emphases added).

Patent Owner makes arguments related to Petitioner’s alleged stipulation (Prelim. Sur-Reply 2–3), which we need not address in view of the conditional nature of the stipulation offered by Petitioner. As noted above, in accordance with the Guidance Memo, we will not discretionarily deny if there is an effective *Sotera* stipulation. However, here, Petitioner’s stipulation states, “*if the Board . . . determines that discretionary denial is warranted, then* Petitioner stipulates” Prelim. Reply 7 (emphasis added). Petitioner therefore *conditions* its stipulation on the Board *first* determining, based on a consideration of the *Fintiv* factors, to exercise its discretion to deny institution. Due to the conditional nature of this stipulation, Petitioner is not “stipulat[ing] not to pursue in a parallel district

court proceeding the same grounds as in the petition or any grounds that could have reasonably been raised in the petition,” as required by the Guidance Memo. As discussed in *NXP*, the policy of favoring institution when a *Sotera* stipulation is provided by Petitioner “mitigates concerns of potentially conflicting decisions and duplicative efforts between the district court and the Board.” IPR2021-01556, Paper 13 at 4. Although in *NXP*, the petitioner offered a stipulation after the decision denying institution issued, it is a distinction without a difference because here the stipulation is only being offered *after* the Board first reviews the *Fintiv* factors and determines that it would be appropriate to exercise its discretion to deny the Petitioner. Thus, Petitioner’s conditional stipulation would “[p]ermit[] a petitioner to wait and see if the Board denies institution under *Fintiv*, and then offer such a stipulation . . . [which] frustrates [the] goals [of a *Sotera* stipulation] and would open the door to gamesmanship.” *Id.* at Paper 13 at 4. Accordingly, we do not consider Petitioner’s representation to be an effective stipulation under the Guidance Memo. We therefore must consider the *Fintiv* factors.

We consider the *Fintiv* factors in view of the status of the related district court action, i.e., *ISIX IP LLC v. SAP America, Inc.*, Case No. 2:23-cv-237-JRG (E.D. Tex). *See* Paper 3, 2; Pet. 89.

1. Factor 1 – whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted

Patent Owner asserts that Petitioner has not filed a motion to stay the district court proceedings. Prelim. Resp. 20. Patent Owner also asserts that Petitioner has provided no indication to the district court of its intent to request a stay of the district court litigation pending a decision, by the Board, of whether to institute review. *Id.* Patent Owner therefore contends that this

first factor strongly favors discretionary denial. *Id.*; *see also* Prelim. Sur-Reply 1.¹²

Petitioner states that no motion to stay the district court litigation has been filed. Pet. 86. While Petitioner acknowledges that “the Board typically declines to speculate on what a district court Judge may do if a stay is requested,” Prelim. Reply 1 (citing *Fintiv*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020)), Petitioner asserts that “here, a stay should be granted.” Prelim. Reply 1. As support for its position that “a stay should be granted,” Petitioner cites to a district court case granting a stay, in which the cited district court is the same as the court in the parallel proceeding here. *See id.* at 1–2 (citation omitted). Petitioner therefore contends that the first factor “disfavors discretionary denial.”¹³ *Id.*

With regard to the first factor, we note that *Fintiv* provides that “a district court stay of the litigation pending resolution of the PTAB trial allays concerns about inefficiency and duplication of efforts.” *Fintiv* at 6. Petitioner here has not requested a stay of the district court proceeding, and we decline to speculate on the likelihood that a stay will be granted if Petitioner were to make such a request in the future.

Accordingly, we determine that this first factor is neutral.

¹² We note that Patent Owner asserts in its discussion of the first factor in its Sur-Reply that “[t]his factor strongly *disfavors* denial of institution.” Prelim. Sur-Reply (emphasis added). We understand Patent Owner’s use of “disfavors,” as opposed to “favors,” to be a typographical error.

¹³ We note that Petitioner asserts, in the Petition, that the “Board should not infer the outcome” of a motion to stay and, in citing cases in support of this assertion, Petitioner states that “this factor is neutral on discretionary denial.” Pet. 86 (citations omitted).

2. *Factor 2 – proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision*

Patent Owner asserts that “trial is expected to begin with jury selection on March 17, 2025, so it should conclude about six months before the statutory deadline for a final written decision in this case.” Prelim. Sur-Reply 1 (citing Ex. 1013, 1); *see* Prelim. Resp. 20. Patent Owner therefore contends that this second factor “strongly favors denial of institution.” Prelim. Sur-Reply 1.

Petitioner asserts that while the expected trial date in March 2025 precedes the expected decision from the Board in September 2025, “these dates are within months of each other, and small timing differences weigh only slightly in favor of discretionary denial.” Prelim. Reply 2 (citation omitted); *see also* Pet. 86 (noting trial currently scheduled for March 2025). Petitioner further asserts that “scheduled trial dates are unreliable and often change,” Prelim. Reply 2, and refers to the “long-standing practice” of the Eastern District of Texas “to set multiple cases to begin trial on the same day. . . . Sometimes none of the cases set for a particular trial date settle, meaning that the Court then has a backlog of cases to try later.” *Id.* (quoting *Atlas Global Techs. LLC v. TP-Link Techs.*, 2023 WL 5512068 at *1 (E.D. Tex. Aug. 25, 2023)). Petitioner also indicates that the Board should consider “the likelihood of schedule slippage, particularly for one of the busiest trial judges in the country.” Prelim. Reply 3. Petitioner therefore contends that this factor “should be neutral or, at most, weigh only slightly in favor of discretionary denial.” *Id.*

On the present facts, the district court would reach invalidity determinations before our final written decision issues. Even though Petitioner cites to the practice in the district court of the parallel litigation of

scheduling multiple cases for trial on the same day, we decline to speculate about any change to the trial date. Because the currently scheduled trial date falls before the statutory deadline for the final written decision in this case, this factor favors discretionary denial.

Accordingly, we determine that this second factor weighs in favor of exercising our discretion to deny institution under § 314(a).

3. Factor 3 – investment in the parallel proceeding by the court and the parties

Patent Owner asserts that infringement and invalidity contentions have been served by the parties. Prelim. Resp. 21. Patent Owner states that a claim construction hearing is scheduled for September 19, 2025, and that “[d]iscovery is underway, and fact discovery will close on October 28, 2024.” *Id.* Patent Owner also states that “[t]he deadline for the parties’ substantial completion of document production” was August 8, 2024, and that “[f]act discovery closes October 28, 2024, so depositions and expert reports will occur in the next sixty days.” Prelim. Sur-Reply 1. Patent Owner therefore contends that “[b]oth parties and the district court have invested significant resources in the parallel proceeding, so this factor weighs in favor of discretionary denial.” Prelim. Resp. 21; *see also* Prelim. Sur-Reply 1 (asserting that “[t]his factor strongly favors denial of institution”).

Petitioner, on the other hand, contends that “there has been very limited activity in the parallel proceedings,” in which Petitioner asserts that “[f]act discovery is in its infancy—the plaintiff has not issued any written discovery or noticed any depositions—and it does not close until October 28, 2024.” Prelim. Reply 3; *see also* Pet. 86–87 (stating, by Petitioner, that the “co-pending litigation is in its early stages, and the investment in it has been minimal”). Petitioner also states that the “institution decision will come

before the close of fact discovery, any claim construction ruling, expert report exchanges and dispositive motions.” Prelim. Reply 3. Petitioner therefore asserts that “this factor strongly weighs against denial.” *Id.*

Further, regarding the timing of Petitioner’s filing of the Petition, Petitioner states that it “has diligently prepared and filed this petition after being served Patent Owner’s infringement contentions.”¹⁴ Pet. 86. Petitioner also states that it “learned which claims were being asserted September 14, 2023, and served preliminary invalidity contentions on November 9, 2023.” *Id.* at 86–87. Petitioner further asserts that “this Petition was filed more than 3 months before the statutory bar date.” *Id.* at 87. Petitioner contends that its “prompt filing after serving invalidity contentions ‘weigh[s] against exercising the authority to deny institution.’” *Id.* (quoting *Fintiv*, Paper 11 at 11).

With regard to the third factor, we first consider Petitioner’s timing in filing the Petition. Specifically, if a petitioner “faced with the prospect of a looming trial date, waits until the district court trial has progressed significantly before filing a petition,” such decision “may impose unfair costs to a patent owner.” *Fintiv*, Paper 11 at 11. However, “[i]f the evidence shows that the petitioner filed the petition expeditiously, such as promptly after becoming aware of the claims being asserted, this fact has weighed against exercising the authority to deny institution.” *Id.* Here, we note that Petitioner filed this Petition on February 26, 2024, which is approximately five months after Petitioner states that it received Patent Owner’s

¹⁴ Patent Owner has not submitted any arguments with respect to whether Petitioner was diligent in filing the Petition. *See generally* Prelim. Resp.; Prelim. Sur-Reply.

infringement contentions on September 14, 2023. Pet. 87. We therefore consider Petitioner to have filed the Petition with reasonable timeliness.

We also consider “the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision.” *Fintiv*, Paper 11 at 9. “Specifically, if, at the time of the institution decision, the district court has issued substantive orders related to the patent at issue in the petition, this fact favors denial.” *Id.* at 9–10. According to the parties, there has been no claim construction ruling or dispositive motions filed, much less ruled on. Further, both parties state that fact discovery does not close until October 28, 2024. Additional pre-trial activities will remain to be completed. Thus, significant work remains to be done in the parallel proceeding, including the completion of claim construction, fact and expert discovery, and dispositive motions.

Accordingly, in light of Petitioner’s reasonable timeliness and the remaining work to be completed, this factor weighs strongly against the exercise of discretionary denial.

4. Factor 4 – overlap between issues raised in the petition and in the parallel proceeding

Patent Owner asserts that Petitioner “relies on the same Brann and Suresh references that are the basis of this petition as its primary reference . . . in its district court invalidity contentions.” Prelim. Resp. 22 (citing Exs. 2002, 2003). Further, Patent Owner states that “[Petitioner] relied on Beauchamp for its invalidity theory for claim 8 of the ’178 patent.” *Id.* (citing Ex. 2003). Patent Owner therefore contends that “[c]omplete overlap in asserted references weighs heavily in favor of denying institution.” *Id.* at 22–23.

On the other hand, Petitioner asserts that “despite the existence of some overlap of issues, Petitioner also asserts invalidity in District Court based on several prior art references not in the Petition, as well as invalidity based on prior art products for the challenged patent.” Prelim. Reply 3. Petitioner also asserts that “the Petition challenges claim[s] not asserted in the District Court; and ‘it is likely that [a PTAB] proceeding will address claims ultimately not asserted in the [related] case,’ reducing the overlap of issues when the parties are required to limit both the asserted claims and the asserted prior art before trial, as is true in the related litigation.” *Id.* at 3–4 (quoting Guidance Memo 17–18). Petitioner therefore contends that this factor “is neutral or weighs against denial.”¹⁵ *Id.* at 4.

Based on our review of Exhibits 2002 and 2003 referenced by Patent Owner, there appears to be overlap between the issues and prior art asserted in the district court litigation. *See* Exs. 2002, 2003. Nevertheless, Petitioner asserts that its invalidity contentions are “based on several prior art references not in the Petition, as well as invalidity based on prior art products for the challenged patent,” Prelim. Reply 3, which indicates that there is not complete overlap in the issues. We also consider that the issues in the district court case may change in view of the remaining pretrial work to be done. *See id.* at 3–4.

Accordingly, we determine that this fourth factor does not favor discretionary denial.

¹⁵ At the time of filing of the Petition, Petitioner asserted that “[t]here is no present overlap of prior art issues due to the early stage of district court litigation. Consequently, this factor favors institution.” Pet. 87.

5. *Factor 5 – whether the petitioner and the defendant in the parallel proceeding are the same party*

The parties in this proceeding are the same parties in the district court litigation. Prelim. Resp. 23; Prelim. Reply 4; *see* Pet. 87.

Accordingly, this fifth factor weighs in favor of exercising our discretion to deny institution.

6. *Factor 6 – other circumstances that impact the Board’s exercise of discretion, including the merits*

Petitioner asserts that the merits of the Petition are compelling. Prelim. Reply 4–7; Pet. 87. Patent Owner contends that the merits of Petitioner’s challenges are lacking. Prelim. Resp. 23–25.

Although both parties raise the issue, it is not necessary for us to determine whether the merits are compelling, because, as discussed below, an overall assessment of factors 1–5 do not support discretionary denial. *See CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 4–5 (Vidal Feb. 27, 2023) (precedential) (“*CommScope*”) (“[I]n circumstances where the Board determines that the other *Fintiv* factors 1–5 do not favor discretionary denial, the Board shall decline to discretionarily deny under *Fintiv* without reaching the compelling merits analysis.”).

7. *Summary of Fintiv Factors and Conclusion on Section 314(a)*

In summary, factor 1 is neutral, factor 3 weighs strongly against the exercise of discretionary denial, factor 4 weighs against discretionary denial, and factors 2 and 5 favor discretionary denial. Taking “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review,” *Fintiv* at 6, and considering the factors collectively, we conclude that they weigh against discretionary denial. We are not persuaded

that the interests of efficiency and integrity of the system warrant exercising our discretion under Section 314(a) to deny institution.

Accordingly, we do not exercise discretion under *Fintiv* to deny institution.

E. Asserted Obviousness over Brann

Petitioner argues that claims 1, 3, 4, 7, and 8 would have been obvious over Brann. Pet. 15, 20–41. In support, Petitioner relies upon the Houh Declaration. *See id.*; Ex. 1002. Patent Owner argues that some of the claim limitations are not taught by the prior art. Prelim. Resp. 30–39, 43. Having considered the arguments and evidence before us, we are persuaded that Petitioner has established a reasonable likelihood of prevailing on this asserted obviousness ground of unpatentability with respect to at least claims 1 and 8.

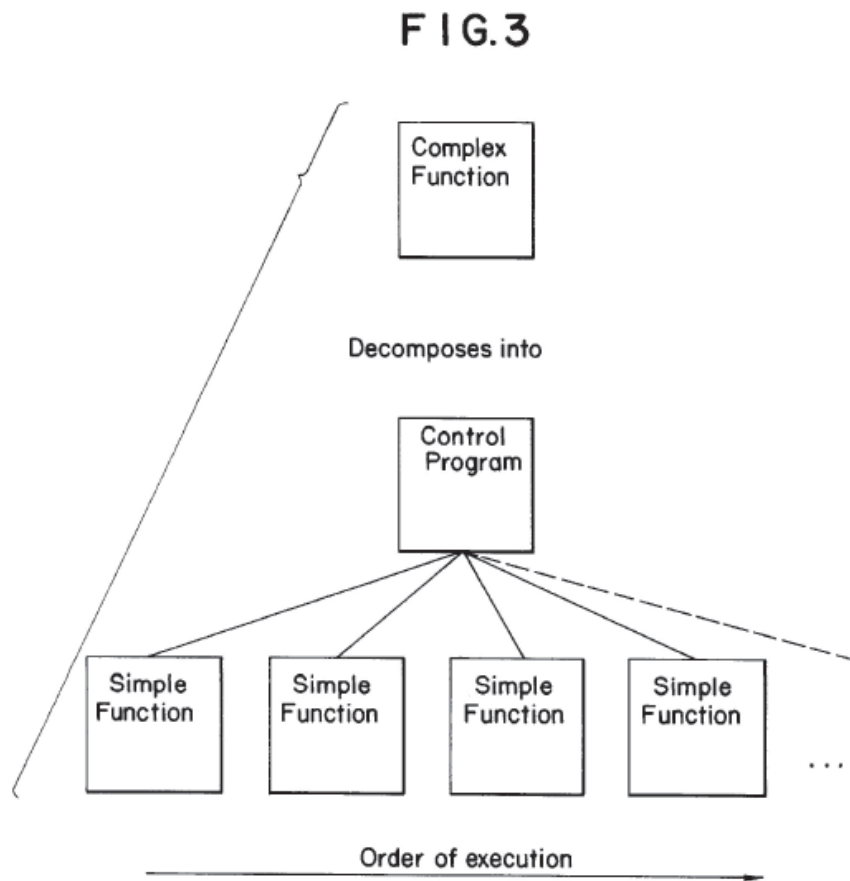
We begin our discussion with a brief summary of Brann and then address the evidence and arguments presented.

1. Brann (Ex. 1003)

Brann is titled “Method and Process of Inter-Machine Communication and Generalized Method for Program Preparation Therefor” and is generally directed to a “computer programming method . . . for translating source messages to target messages” in which the “translational steps are described in a database in which all necessary instructions and data are stored.” Ex. 1003, codes (54), (57). In providing this method, Brann describes that “[t]here is a need for a mechanism which will aid in the rapid integration of computer systems and a second need for a faster way of developing and changing systems.” *Id.* at 5:27–29. Specifically, Brann describes a “method of creating programs by storing and calling upon basic programming

elements and combining those elements for use at the program's execution-time." *Id.* at 3:5–8.

With reference to Figure 3, Brann describes that “any computer program, however complex, may be described by decomposing it into its related elements” and that the “nature of the instructions is not defined, but are generally taken to be an atomic unit of processing appropriate to the task in hand.” Ex. 1003, 6:27–31. Figure 3, reproduced below, shows a “diagram representing a decomposition of a typical program.” *Id.* at 5:15–16.

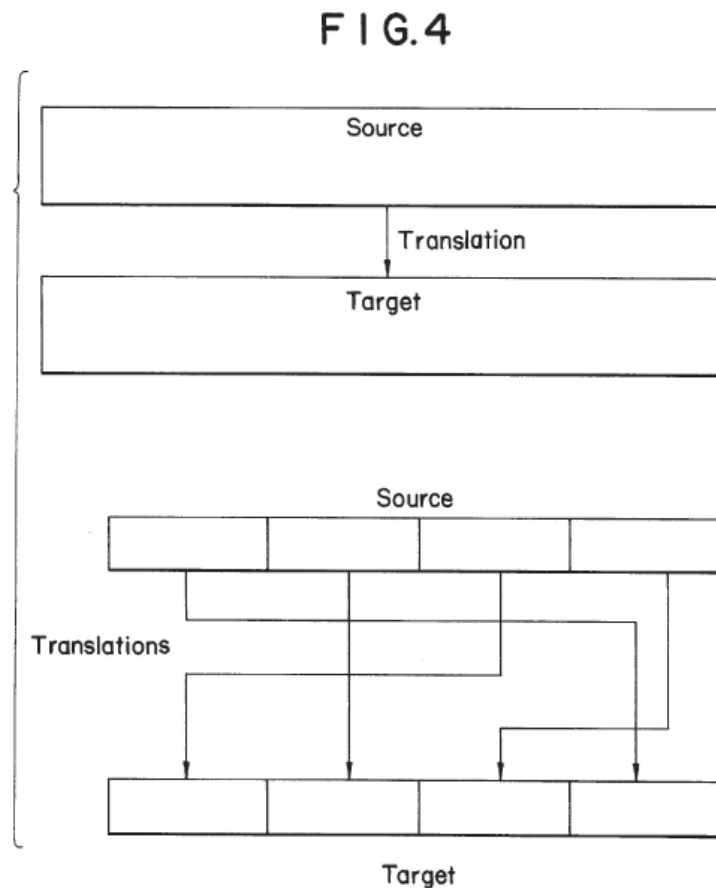


Id. at Fig. 3. Figure 3, above, shows the decomposition of a complex function into its “related elements,” including a block showing a “Control

Program” and multiple “Simple Function” blocks, in which Brann refers to these “simple functions” as a “sequence of instructions.” *Id.* at 6:25–26.

With respect to these “simple functions,” Brann states that “[i]t is well known that such functions are best implemented as subroutines which can be re-used in similar instruction needs.” *Id.* at 6:34–36. Figure 3 shows an arrow below the “Simple Function” blocks, in which the arrow is labeled as “Order of execution.”

Figure 4, reproduced below, illustrates a diagram representing a “Translation Program.” Ex. 1003, 5:17.



Id. at Fig. 4. Figure 4 shows multiple “Source” and “Target” blocks, with an arrow pointing from each “Source” block to each “Target” block. An

individual arrow is labeled “Translation,” and a plurality of arrows is labeled “Translations.” With reference to Figure 4, Brann describes:

The Translation Program . . . operates in the following manner: Once the data to be translated has been obtained (i.e., source data), it must be identified. This means the translation program must recognize which of the sets of possible incoming messages has been received. This identification determines the set of outgoing structures (i.e., target data) which must be conveyed to the receiver. This set can contain zero, one, or many outgoing structures. This translation can be decomposed into many smaller steps of translation, each of which applies to a simple value in the source data.

Id. at 8:5–15. Further, Brann describes that the “set of subroutines required to implement a Translation Program consists, therefore, of a set of structural conversion routines” for carrying out functions. *Id.* at 8:36–38.

2. Analysis of Independent Claim 1

Petitioner contends that Brann teaches or suggests the limitations of independent claim 1. Petitioner identifies certain passages and figures in the references and explains their significance with respect to the corresponding claim limitations, with additional support from the Houh Declaration, as detailed below. *See* Pet. 20–36; *see also* Ex. 1002 ¶¶ 56–99.

a. Preamble [1.0]

The preamble of claim 1 sets forth “[a] system for integrating data among heterogeneous source applications and destination applications.”¹⁶ Ex. 1001, 9:51–53.

¹⁶ It is unclear whether Petitioner takes a position as to whether the preamble is limiting. For example, Petitioner states that it “relies on Patent Owner’s position applying the district court’s claim construction for the purposes of this proceeding,” Pet. 14, and cites to such Claim Construction Order. *See* Ex. 1007. Further, Petitioner expressly notes that “[t]he preamble was determined to be limiting” in the “prior district court case” and cites to

Petitioner contends that Brann describes and suggests the preamble. Pet. 20–23. Petitioner asserts that Brann’s description of a “process for providing an efficient system for assembling and for translating information from one computer to another,” (Pet. 20 (quoting Ex. 1003, 1:10–13, 5:27–28 (referencing, by Petitioner, “competing programs”))), describes and suggests the claimed “system for integrating data.” *Id.* Petitioner also states that the “system” in Brann “includes ‘a control program’ and ‘a database.’” *Id.* at 20–21 (quoting Ex. 1003, 21:47–58, 13:33–34) (citing Ex. 1002 ¶ 56).

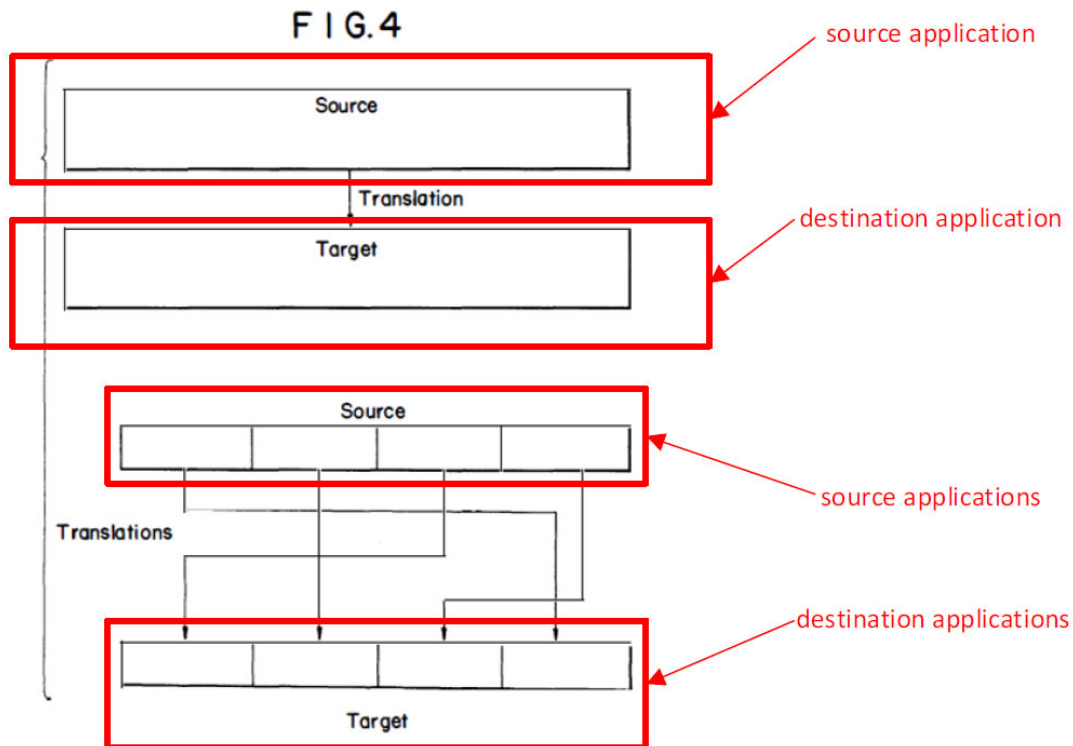
Petitioner further asserts that “Brann describes and suggests integrating ‘data among heterogenous source and destination applications,’” by addressing “the ‘need for a mechanism which will aid in the rapid integration of computer systems’ and describing a ‘computer programming method . . . for translating source messages to target messages’ and ‘coordination of the data between the competing programs.’” Pet. 21 (quoting Ex. 1003, 5:27–28, Abstract, 1:16–30). Petitioner contends that such “competing programs” would be recognized by a person of ordinary skill in the art as “applications,” because, according to Petitioner, “‘program’

Exhibit 1007. Pet. 14. However, in the Petition, Petitioner frames its prior art arguments, with respect to the preamble, in a conditional manner, stating, “[i]f the preamble is limiting, Brann describes and suggests” *See id.* at 20 (emphasis added). Petitioner’s position with respect to whether the preamble is limiting is therefore unclear. At this stage of the proceeding, Patent Owner does not take a position as to whether the preamble is limiting. *See generally* Prelim. Resp. For purposes of this Decision, we make no finding as to whether the preamble is limiting because, regardless of whether the preamble is limiting, Petitioner shows sufficiently, for purposes of institution, that the prior art meets the recitation in the preamble.

and ‘application’ were used interchangeably at the relevant time.” *Id.* (citing Ex. 1002 ¶ 58) (citing Ex. 1009¹⁷).

Petitioner also asserts that because “Brann states that the programs are executed on ‘different’ and ‘independent’ computer systems,” Pet. 21 (citing Ex. 1003, 2:54–55, 1:16–30), a person of ordinary skill in the art would recognize that “since the computer systems are heterogeneous, the applications running on those heterogen[e]ous computer systems are also heterogen[e]ous.” *Id.* (citing Ex. 1003, 2:45–55; Ex. 1002 ¶¶ 59–60). Petitioner states that “Brann discloses that data sent from source applications to target applications is translated or transformed,” and contends that “[t]here would be no need to translate and/or transform the data if the source and target were the same.” *Id.* at 22 (citing Ex. 1003, 11:7–30). Relying on the Houh Declaration, Petitioner asserts that a person of ordinary skill in the art “would recognize that the source and target of Brann are heterogen[e]ous.” *Id.* (citing Ex. 1002 ¶¶ 59–62). In support thereof, Petitioner provides the following annotated version of Brann’s Figure 4:

¹⁷ MICROSOFT PRESS COMPUTER DICTIONARY, Third Edition, 1997 (Ex. 1009).



Id. (citing Ex. 1003, Fig. 4 (annotated), 7:29–52, 11:46–47, 14:33–34).

Figure 4, as annotated by Petitioner and reproduced above, depicts “a diagram representing a Translation Program.” Ex. 1003, 5:17. In the above annotated version of Figure 4, a red border encloses each of two “Source” blocks and each of two “Target” blocks, in which arrows show communication from each “Source” block to each “Target” block. The arrows are labeled “Translation” or, collectively, “Translations.” In addition to the red borders, Petitioner has also added the following labels for each enclosed block: “source application;” “destination application;” “source applications;” and “destination applications.” Petitioner argues that “[a]nnotated Figure 4 of Brann . . . illustrates integrating data among source applications and destination applications via translation(s),” Pet. 22, and that “[a]s such, a POSITA would understand Brann also describes or suggests that these heterogeneous applications are ‘*heterogeneous source*

applications and destination applications.” *Id.* at 23 (citing Ex. 1002 ¶¶ 56–62).

Patent Owner disputes that Brann teaches or suggests “source applications and destination applications” or “integrating data among heterogenous source applications and destination applications,” as set forth in the preamble of claim 1. Prelim. Resp. 30–31. Patent Owner contends that “[t]here is no disclosure in Brann of a destination application requesting data from a source application” where “Brann requires custom programming to translate the source messages to target messages” and that “Brann discloses ‘translating source messages to target messages’ using subroutines.” *Id.* at 30 (citing Ex. 1003, Abstract, 7:21–22, 8:5–11).

In response to Petitioner’s reliance on Brann’s “coordination of data between the competing programs,” in which Patent Owner states that Petitioner “then equates programs with applications,” Prelim. Resp. 30, Patent Owner contends that “Brann does not describe integrating source applications and destination applications.” *Id.* In support of this contention, Patent Owner argues,

This is confirmed by Petitioner[’]s reliance on the discussion in the Background relating to “replacing systems . . . by the logistic of converting the data contained in such systems, implementing the new software, and re-education of users.” Pet. at 21 (citing Brann at 2:45–55). Replacing computer software, performing an “upgrade . . . or mov[ing] to a different heterogeneous platform,” Pet. at 22, results in deprecating the software or platform—not integrating source applications and destination as claimed in the ’178 patent.

Prelim. Resp. 30–31.

Patent Owner further argues that “Petitioner’s annotation of Fig. 4 of Brann is incorrect and unsupported because the figure discloses source and

target *data*—there is no teaching or suggestion that Fig. 4 depicts source and destination applications.” Prelim. Resp. 31 (citing Ex. 1003, 8:5–11). Patent Owner asserts that “the source data is further decomposed into data types, which are then separately *converted* via subroutines based on the data type,” and that “[d]ata conversion is simply converting data from one form to another—it does not integrate applications, nor does it disclose source and destination applications.” *Id.* (citing Ex. 1003, 8:16–48).

Having considered the parties’ respective arguments, we are persuaded on the preliminary record before us by Petitioner’s showing that Brann at least suggests “[a] system for integrating data among heterogeneous source applications and destination applications,” as set forth in the preamble of claim 1. Specifically, Brann provides a “computer programming method . . . for translating source messages to target messages” in which the “translational steps are described in a database in which all necessary instructions and data are stored” and a “control program” is used. Ex. 1003, Abstract. Brann thus describes a system that includes at least a database, a control program, and a computer programming method. Brann refers to the “history of computer *systems* and the *programs* used therein” and describes that “[t]here has been little attention paid to coordination of the data between the various *competing programs*.” *Id.* at 1:17–18, 1:28–30 (emphasis added). Further, with reference to Figure 4, Brann discloses a “Translation Program” for translating data between a “source” and a “target,” *see id.* at Fig. 4, 8:5–6, and describes, for example, that “[e]ach of the target messages for each source message is recorded in the target table.” *Id.* at 11:7–8. Brann therefore at least suggests data being acted upon between a source and a target in the context of “competing programs” used in a computer system(s). The Houh Declaration states that

“program” and “application” “were used interchangeably at the relevant time,” Ex. 1002 ¶ 58, and cites to extrinsic evidence as support for such statement. *See id.* (citing Ex. 1009, 27)¹⁸.

While Patent Owner states that Petitioner “fails to show that Brann teaches or suggests ‘integrating data among heterogenous source applications and destination applications’” and asserts that Petitioner “sidestep[s] this deficiency” by relying on Brann’s description in the Background of the “coordination of data between the competing programs,” in which Patent Owner asserts that Petitioner “then equates programs with applications,” Prelim. Resp. 30, we note that the Houh Declaration provides evidence, *see* Exhibit 1009, in support of its contention that “program” and “application” were used “interchangeably at the relevant time.” *See* Pet. 21 (citing Ex. 1002 ¶ 58; Ex. 1009). Patent Owner does not dispute the testimonial evidence by Petitioner’s declarant regarding the interpretation of “program” and “application.” *See generally* Prelim. Resp. Based on the present record, we therefore are persuaded that Brann’s description of data being acted upon between a source and a target in the context of “competing programs” teaches or suggests “integrating data among heterogenous source and destination applications.”

For the same reasons, we do not agree, based on the present record, with Patent Owner’s assertions that “Petitioner’s annotation of Fig. 4 of Brann is incorrect and unsupported because the figure discloses source and target *data*—there is no teaching or suggestion that Fig. 4 depicts source and destination applications” and that “[d]ata conversion is simply converting

¹⁸ Exhibit 1009 at page 27 states: “application [] *n.* A program designed to assist in the performance of a specific task, such as word processing, accounting, or inventory management.”

data from one form to another—it does not integrate applications, nor does it disclose source and destination applications.” *See* Prelim. Resp. 31. Brann expressly describes “a need for a mechanism which will aid in the rapid *integration of computer systems*,” Ex. 1003, 5:27–28 (emphasis added), in which Brann notes that “[t]here has been little attention paid to coordination of the data between the various *competing programs*.” *Id.* at 1:28–30 (emphasis added).

Based on our review and consideration of the current record, we preliminarily determine that Petitioner has presented sufficient evidence that Brann teaches or suggests the preamble for purposes of institution.

b. Limitation [1.1]

Limitation [1.1] recites “a repository of information relating to the source applications and the destination applications, the repository including a plurality of data elements each being capable of performing a discrete operation on a piece of data.” Ex. 1001, 9:54–58.

Petitioner contends that Brann describes and suggests limitation [1.1]. Pet. 23–28. Petitioner argues that “Brann discloses a database as ‘*a repository of information*,’” Pet. 23 (quoting Ex. 1003, 4:6–8 (emphasis added)), and points to language in the ’178 patent referring to a “relational database represented by repository 40.” *Id.* (emphasis omitted) (quoting Ex. 1001, 4:33–37). In addition, Petitioner asserts that Brann’s description of “storing instructions, data, and the structures of any source stimuli to be acted upon in the database,” (*id.* (quoting Ex. 1003, 3:49–51)), would be understood by an ordinarily skilled artisan to be “information relating to the source and destination applications,” as recited in limitation [1.1]. *Id.* at 23–24 (citing Ex. 1002 ¶ 64). Petitioner also asserts that “information describing the message types used by the source and target, which is information

relating to the source and destination applications, is stored in tables in the database,” in which, as support, Petitioner cites to Brann’s description that

[e]ach of the incoming message types is recorded in the source table together with any arbitrary data to be found in messages of this type in the section defined in the location table. Each of the target messages for each source message is recorded in the target table. Each of the details of the transformation is recorded in a translation details table.

Id. at 24 (quoting Ex. 1003, 11:4–10); *see also id.* (noting that Brann’s “database also stores ‘data and instructions corresponding to the steps necessary to translate the source message to the target message.’”) (quoting Ex. 1003, 4:6–8) (citing Ex. 1002 ¶¶ 65–66).

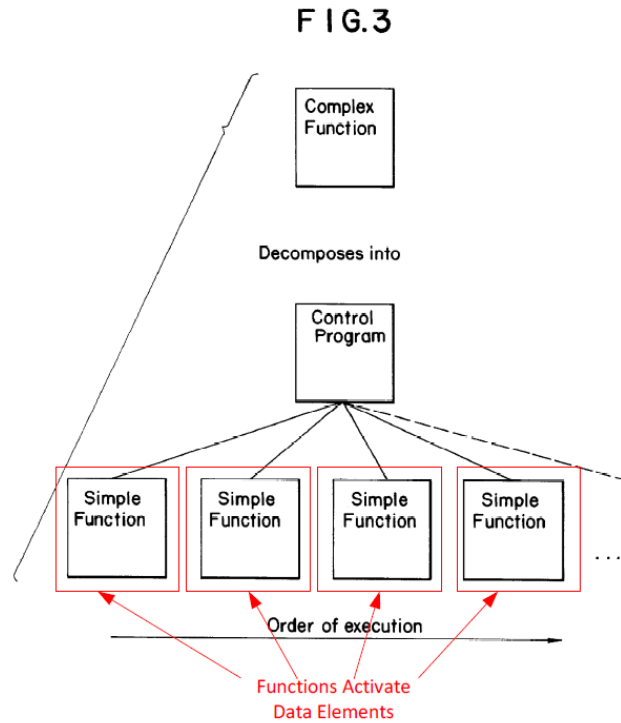
Pointing to the prior claim construction¹⁹ of “data element(s)” as “individual unit(s) of reusable code,” Pet. 24 (citing Ex. 1007, 2), Petitioner asserts that “[j]ust like the ’178 patent, Brann describes and/or suggests reusable subroutines (*data elements*) that perform discrete operations.” *Id.* (citing Ex. 1002 ¶¶ 67–68); *see also id.* at 25 (citing Ex. 1001, 6:33–35). Petitioner contends that, “[i]n the same manner” as the ’178 patent, Brann teaches

an atomic unit of processing appropriate to the task in hand. In fact, in the construction of computer systems, the form of the ‘instructions’ is usually defined by the task at hand and is then expressed using a suitable programming language. It is well known that such functions are best implemented as subroutines which can be re-used in similar instruction needs.

¹⁹ As noted in Section III.C., the parties both apply the construction of claim terms from the Claim Construction Order (Ex. 1007) for purposes of this proceeding. *See* Pet. 14; Prelim. Resp. 18; Ex. 1007.

Pet. 25 (quoting Ex. 1003, 6:29–36). Petitioner therefore contends that “Brann thus describes and/or suggests the claimed ‘data elements.’” *Id.* (citing Ex. 1002 ¶¶ 67–68).

Further, Petitioner argues that the “subroutines of Brann are ‘each being capable of performing a discrete operation on a piece of data.’” Pet. 25 (emphasis omitted). As support, Petitioner states that a “subroutine” in Brann “carries out the particular transformation required,” and carries out functions such as “Copy (with justification to left or right, as appropriate).” *Id.* at 25–26 (quoting Ex. 1003, 11:11–12, 8:38–48). Petitioner also points to Brann’s description that “Translation Methods are written as subroutines which receive a particular set of parameters. Each Method carries out a particular type of transformation. . . . Each of the Methods carries out a particular type of manipulation of simple data types.” *Id.* at 26 (quoting Ex. 1003, 12:47–52). Further, Petitioner provides an annotated version of Brann’s Figure 3, which is reproduced below.



Id. at 27 (citing Ex. 1003, Fig. 3 (annotated)). Figure 3, as annotated by Petitioner and reproduced above, depicts “a diagram representing a decomposition of a typical program.” Ex. 1003, 5:15–16. In the above version of Figure 3, Petitioner has enclosed each “Simple Function” block with a red border, and has added four red arrows pointing to each “Simple Function” block. The arrows are collectively labeled “Functions Activate Data Elements.” With reference to annotated Figure 3, Petitioner states that “Brann illustrates the simple functions (subroutines) invoked by the control program to perform an operation on data. Brann thus describes and/or suggests that the subroutines are used to perform ‘*discrete operations on pieces of data.*’” Pet. 27 (citing Ex. 1003, Fig. 3; Ex. 1002 ¶¶ 70–73).

According to Petitioner, a person of ordinary skill in the art

would understand the “task in hand” and “particular transformation” performed by the subroutines in Brann are

types of “*discrete operations*.” A subroutine is a discrete operation as it is labeled as such. This is the case regardless of what the subroutine is composed of, for example, various sub-operations. Ex. 1002, ¶¶74 Brann thus renders obvious “*data elements*” (subroutines) that perform a “*discrete operation on a piece of data*” (task in hand, etc.). Ex. 1002, ¶¶70–74.

Id. at 27–28.

Further, Petitioner contends that “Brann also describes and/or suggests that the subroutines are included in the database,” Pet. 28 (citing Ex. 1002 ¶¶ 76–78), and, as support, cites to both Brann and the Houh Declaration. *See id.* (citing Ex. 1003, Abstract, 3:5–8, 3:19, 4:6–7, 4:53–55, 7:22–30, 14:63–64, 20:64–67; Ex. 1002 ¶¶ 63–78). In particular, Petitioner points to Brann’s description that “[i]t is still a further object of this invention to provide a method of creating programs by storing and calling upon basic programming elements and combining those elements for use at the program’s execution-time,” *id.* (quoting Ex. 1003, 3:5–8), for teaching that the subroutines are stored. *Id.* In addition, Petitioner asserts that “Brann also states the steps for the transformation are described in the ‘database in which all necessary instructions and data are stored,’” (*id.* (quoting Ex. 1003, Abstract)), and contends that a person of ordinary skill in the art would therefore understand that “Brann describes and/or suggests that the subroutines are stored in the database.” *Id.* (citing Ex. 1002, ¶¶ 77–78).

Patent Owner argues that Petitioner erroneously relies on Brann’s reference to a database that stores “instructions, data, and the structures of any source stimuli to be acted upon in the database” for disclosing the claimed “repository of information relating to the source applications and the destination applications” of limitation [1.1]. Prelim. Resp. 34 (citing Pet. 23–24 (citing Ex. 1003, 3:49–51, 4:6–8)). Rather, Patent Owner asserts that

the “instructions, data, and structures of any source stimuli” relate to the translation of source messages to target messages and not to source and destination applications. *Id.* Further, Patent Owner asserts that the message translation in Brann is performed by an “application program” that is “unrelated to any source or destination application.” *Id.* (citing Ex. 1003, 5:2–6, 10:58–65). Patent Owner contends that “message types are not tied to any application,” (*id.* at 35 (citing Ex. 1003, 12:12–14)), and therefore argues that Petitioner’s reliance on Brann’s description regarding “[s]toring incoming message types in a location table and target messages in a target table,” (*id.* (citing Pet. 24)), “says nothing about source and destination applications.” *Id.* (citing Pet. 24) (citing Ex. 1003, 11:4–10).

On the present record, we determine that Petitioner has presented sufficient evidence that Brann teaches or suggests limitation [1.1]. Specifically, Brann discloses “*storing* in the database data and instructions corresponding to the steps necessary to translate the source message to the target message,” Ex. 1003, 4:6–8 (emphasis added), in which such “database” may therefore be considered a “repository of information.” Further, Brann describes the storing of “instructions, data, and the structures of any source stimuli to be acted upon in the database.” *Id.* at 3:49–50. Since such information relates to translating source and target messages, including acting upon any “source stimuli,” we are persuaded by Petitioner, with support from the Houh Declaration, that an ordinarily skilled artisan “would understand this to be information relating to the source and destination applications,” *see* Pet. 23–24 (citing Ex. 1002 ¶ 64), and we therefore do not agree with Patent Owner’s contentions that Brann’s “message types are not tied to any application” or that the message translation in Brann is performed by an “application program—unrelated to any source or destination

application.” *See* Prelim. Resp. 34–35 (citing Ex. 1003, 12:12–14, 5:2–6). Further, for similar reasons to those discussed with respect to the preamble, we find Patent Owner’s arguments that Brann does not teach or suggest “source applications and destination applications” to be unconvincing based on the current record.

Brann also discloses invoking subroutines for carrying out various functions and transformations. *See* Ex. 1003, Fig. 3, 6:29–36, 11:11–12, 8:38–48, 12:47–52. In addition, Brann discloses “a *database* in which all *necessary instructions and data are stored*,” *id.* at Abstract (emphasis added), and specifically refers to “*storing* and calling upon *basic programming elements*.” *Id.* at 3:6–7 (emphasis added). Further, Brann expressly discloses that “a subroutine . . . carries out the particular transformation required,” *id.* at 11:11–12, and we therefore determine that there is sufficient evidence that Brann teaches or suggests “a plurality of data elements each being capable of performing a discrete operation on a piece of data.” *See also id.* at 8:38–48 (providing examples of functions carried out by subroutines).

We therefore preliminarily determine, for purposes of institution, that Petitioner has presented sufficient evidence that Brann teaches or suggests “a repository of information relating to the source applications and the destination applications, the repository including a plurality of data elements each being capable of performing a discrete operation on a piece of data.”

c. Limitation [1.2]

Limitation [1.2] recites “[the repository including . . .] a first module including a plurality of instruction sets, each instruction of each instruction set activating a data element.” Ex. 1001, 9:55–60.

According to Petitioner,

Brann renders this claim element obvious as the database (*repository*) of Brann includes a plurality of transformation instructions (*instructions sets*) for the control program to activate subroutine(s) (*data element(s)*) to perform the translation. Ex. 1002, ¶¶79–89. The transformation instructions are stored in the database, for example in rows of a database table, which a POSITA would understand corresponds to the “first module.” Ex. 1002, ¶¶79–83.

Pet. 29.

Petitioner further asserts that the claimed “first module” is “a collection of instructions sets.” Pet. 29 (citing Ex. 1001, 2:53–57, 8:55–56). Petitioner also asserts that “[t]he instruction sets of Brann include a ‘list of subroutines to be invoked and an order in which they should be invoked,’” and that the “Control Program then invokes the required subroutines in the required order.” *Id.* (quoting Ex. 1003, 7:26–27). Petitioner asserts that such instructions are “stored in the database.” *Id.* (citing Ex. 1003, 7:33–34). Relying on these disclosures in Brann, Petitioner contends that Brann teaches and/or suggests the “first module including a plurality of instruction sets,” as recited in limitation [1.2]. *Id.* (citing Ex. 1002 ¶¶ 79–83).

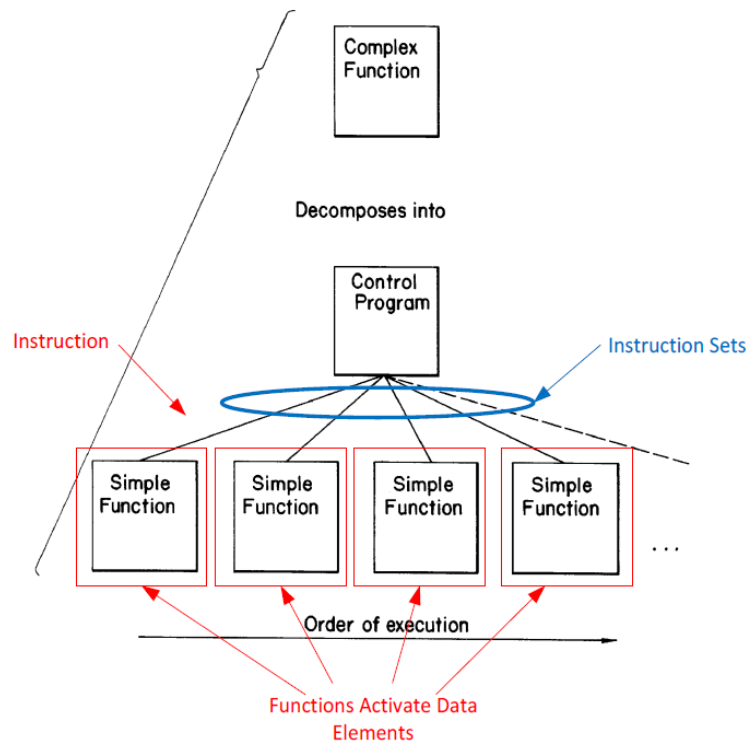
Relying on the Houh Declaration as support, Petitioner contends that “Brann also teaches and/or suggests ‘*each instruction of each instruction set activating a data element*’ as each of the instructions activates a subroutine by instructing the Control Program to call that subroutine.” Pet. 29 (citing Ex. 1002 ¶¶ 84–87). In turn, the cited portions of the Houh Declaration point to Brann’s description of “causing the control program to obtain from the database, upon receipt of a source message, the instructions in the database to direct the control program and call upon identified translation method programs to translate the source message to a corresponding target message,” (Ex. 1002 ¶ 87 (quoting Ex. 1003, 21:9–18)), for meeting the

claimed “*each instruction of each instruction set activating a data element.*”
See id.

In stating that Brann teaches and/or suggests “*each instruction of each instruction set activating a data element*” as “each of the instructions activates a subroutine by instructing the Control Program to call that subroutine,” (Pet. 29 (citing Ex. 1002 ¶¶ 84–87)), Petitioner notes that “[t]he ’178 patent describes this function as ‘[m]odule 70A provides an instruction set for achieving the output which then calls upon a series of data elements 60 within library 50 to perform individual tasks that may be common to a variety of modules 70.’” *Id.* at 29–30 (emphasis omitted) (quoting Ex. 1001, 6:54–58). Petitioner further notes that the ’178 patent states, “[M]odules 70 do not actually contain data elements 60, but rather contain information describing where they may be found in library 50.” *Id.* (quoting Ex. 1001, 7:38–41). Petitioner asserts that “[i]n a similar manner, Brann discloses ‘the database contains a unique string of characters for each available subroutine,’” *id.* at 30 (quoting Ex. 1003, 7:45–46), in which “[t]hat name is used by the Control Program to derive the executable function reference of the appropriate subroutine when it reads the database.” *Id.* (quoting Ex. 1003, 11:13–17); *see also id.* (citing Ex. 1003, 11:19–20). Petitioner therefore contends that “the database and database tables contain information describing where the subroutines to be activated may be found, just as the ‘module’ described in the ’178 patent.” *Id.* (emphasis omitted) (citing Ex. 1002 ¶¶ 84–85).

Further, Petitioner asserts that Brann’s Figure 3 illustrates “how the instructions in the instruction set are used to activate a data element,” Pet. 30, and provides an annotated version of Figure 3 as support. Petitioner’s annotated version of Brann’s Figure 3 is reproduced below.

FIG. 3



Id. at 30–31 (citing Ex. 1003, Fig. 3). Figure 3, as annotated by Petitioner and reproduced above, depicts “a diagram representing a decomposition of a typical program.” Ex. 1003, 5:15–16. In the above version of Figure 3, Petitioner has enclosed each “Simple Function” block with a red border and has added the label “Instruction” for each line extending from “Control Program” to each “Simple Function” block. Petitioner has also circled, in blue color, the lines extending from the “Control Program” block to the “Simple Function” blocks and has labeled this circle as “Instruction Sets.” Petitioner has also added red arrows pointing to each “Simple Function” block, in which these arrows are collectively labeled “Functions Activate Data Elements.” With reference to annotated Figure 3, Petitioner asserts that the “line between the control program and each simple function represents that the control program calls a sequence of these simple functions, which

are ‘a sequence of instructions’ that execute in a particular order,” and that a person of ordinary skill in the art would recognize “the transformation program, database tables and rows within those tables of Brann as the claimed ‘first module including a plurality of instruction sets . . . activating a data element(s).” Pet. 30–31 (emphasis omitted) (citing Ex. 1003, 6:25–36, 5:15–16, Fig. 3; Ex. 1002 ¶¶ 86–88).

According to Petitioner,

Thus, the database of Brann storing all data and instruction necessary for the translation, including the “list of subroutines to be invoked and an order in which they should be invoked,” and “the reference to find the subroutine and execute the subroutine” renders obvious “[*the repository including. . .] a first module including a plurality of instruction sets, each instruction of each instruction set activating a data element.*”

Pet. 31 (citing Ex. 1002 ¶¶ 79–89).

Patent Owner argues that Petitioner’s contention that “the ‘first module’ is a collection of instruction sets,” and the ‘instruction sets of Brann include a ‘list of subroutines to be invoked and an order in which they should be invoked,’” is “incorrect for three reasons.” Prelim. Resp. 37 (emphasis omitted) (quoting Pet. 29 (citing Ex. 1003, 7:26–27)).

First, Patent Owner argues that Petitioner’s contention is incorrect because the list and order of subroutines to be invoked is an “action” by the Control Program. Prelim. Resp. 37 (citing Ex. 1003, 7:23–27). Patent Owner contends that “Brann does not disclose that this action—the list and order of subroutines to invoke—is stored in a repository (or database as [Petitioner] contends)” and “[n]or could it because Brann discloses that this information is stored ‘in the form of arrays of data structures, in the computer’s memory,’” (Prelim. Resp. 37–38 (emphasis omitted) (citing Ex. 1003, 7:33–

35)), in which Patent Owner asserts that a “computer’s memory is not a database.” *Id.* at 38.

Second, Patent Owner asserts that “Brann’s²⁰ contention that ‘the database and database tables contain information describing where the subroutines to be activated may be found, just as the ‘module’ described in the ‘178 patent,’ Pet. at 30, contradicts Brann’s teachings.” Prelim. Resp. 38. Patent Owner asserts that “Brann discloses that the ‘data structures contain an executable function reference (in the C language this is a ‘function pointer’) to the subroutine which is the reference required by the program in order to execute the subroutine,’” (*id.* (quoting Ex. 1003, 7:39–42), and that “[c]ritically, [t]his function pointer cannot be held in the database.” Prelim. Resp. 38 (quoting Ex. 1003, 7:43–44). Patent Owner asserts that “[u]nder [Petitioner’s] theory, the instruction sets (i.e., reference or function pointer) that activate data elements (i.e., executes the subroutines) is *not* stored in the repository (i.e., database),” and that “[r]ather than being stored in a database, the function pointers are created ‘by the Control Program when it first begins executing.’” *Id.* (quoting Ex. 1003, 7:50–51). Patent Owner therefore argues that “the ‘information describing where the subroutines to be activated are located’—the function pointers—are created by the Control Program and are *not* stored in the database.” *Id.*

Patent Owner further asserts that Petitioner “alleges that each of the instructions activates a subroutine by instructing the Control Program to call that subroutine,” Prelim. Resp. 38 (citing Pet. 29), but “Brann teaches no such thing.” *Id.* at 38–39. Patent Owner argues that “[i]nstead, Brann teaches

²⁰ We understand Patent Owner’s reference to “Brann’s contention” here to be a typographical error that was intended to state “Petitioner’s contention.”

that the Control Program creates the function pointer to the subroutine because the ‘function pointer cannot be held in the database,’” *id.* at 39 (quoting Ex. 1003, 7:43–44), and that “[t]he ‘unique string of characters [stored in the database] for each available subroutine’ does not call or activate the subroutine.” *Id.* (quoting Ex. 1003, 7:45–46). Patent Owner asserts that “[t]he Control Program ‘converts the function names into function pointers,’ which are *not* stored in a database,” (*id.* (quoting Ex. 1003, 7:43–49)), and that “[t]he instruction sets identified by [Petitioner] in its annotated Fig. 3 (denoted by the blue oval) are generated during Control Program execution, rather than stored in a database.” *Id.* at 39. Patent Owner contends that “[b]ecause the function pointers that call the subroutines are *not* stored in a database, [Petitioner] cannot show that Brann discloses this element.” *Id.*

Third, Patent Owner asserts that “there is no teaching or suggestion in Brann that the order of subroutines to be invoked—another aspect of [Petitioner’s] theory of instruction sets—is stored in a database,” and that “[n]or could it because the Control Program ‘derives the appropriate action to be taken’ including forming ‘a list of subroutines to be invoked and an order in which they should be invoked.’” Prelim. Resp. 39 (quoting Ex. 1003, 7:23–27). Patent Owner therefore contends that Petitioner fails to show that Brann discloses limitation [1.2]. *Id.*

On the current record, we determine that Petitioner has presented sufficient evidence that Brann teaches or suggests limitation [1.2]. Specifically, Brann discloses a database including a plurality of “transformation instructions,” *see* Ex. 1003, 10:58–62, and a “*list* of subroutines to be invoked and an order in which they should be invoked,” as shown in Figure 3. *See id.* at Fig. 3, 7:26–27 (emphasis added). Brann

further describes that “[t]he Control Program *extracts its instructions from the database* and retains them, in the form of arrays of data structures, in the computer’s memory. . . . One of the data arrays consists of all of the required series of subroutine invocations.” Ex. 1003, 7:33–39 (emphasis added).

There is thus support for Petitioner’s contention that Brann teaches or suggests “[the repository including . . .] a first module including a plurality of instruction sets” of limitation [1.2].²¹

While Patent Owner asserts that such information could not be stored in a repository or database because Brann discloses that such information is stored “in the form of arrays of data structures, in the computer’s memory,” Prelim. Resp. 38 (quoting Ex. 1003, 7:33–35), in which Patent Owner asserts that a “computer’s memory is not a database,” *id.*, Brann expressly

²¹ We note that while Petitioner describes the claimed “first module” as “a collection of instructions sets,” Pet. 29 (citing Ex. 1001, 2:53–57, 8:55–56), and asserts that “Brann includes a plurality of transformation instructions (*instruction sets*),” *id.* (citing Ex. 1002 ¶¶ 79–89), Petitioner also states, in discussing limitation [1.2], that the “transformation instructions are stored in the database, for example in *rows of a database table, which a POSITA would understand corresponds to the ‘first module.’*” *Id.* (citing Ex. 1002 ¶¶ 79–83) (emphasis added). Petitioner therefore possibly identifies Brann’s “row,” or possibly “rows,” of a database as the claimed “first module.” The Houh Declaration also appears to identify “a row” as the “first module,” in which the Houh Declaration states that the “transformation instructions are entered into *a row (first module)* in a table in the database.” Ex. 1002 ¶ 82 (emphasis added) (citing Ex. 1003, 10:58–[62]); *see* Pet. 29 (citing Ex. 1002 ¶¶ 79–83). It is therefore unclear if Petitioner’s pointing to Brann’s “row” of a database is the specific mapping of “first module,” and/or if Petitioner, by directing us to Brann’s “row” of a database, is intending to show where the transformation instructions are stored. We invite the parties to develop the arguments related to this issue further at trial, to the extent permitted under our rules.

states, as noted above, that “[t]he Control Program *extracts its instructions from the database* and retains them, in the form of arrays of data structures, in the computer’s memory.” Ex. 1003, 7:33–35 (emphasis added). Brann describes that “[o]ne of the data arrays consists of all of the required series of subroutine invocations. These data structures contain an *executable* function reference (in the C language this is a ‘function pointer’) to the subroutine which is the reference required by the program in order to execute the subroutine.” *Id.* at 7:38–43 (emphasis added). Thus, regardless of whether Brann describes that “arrays of data structures” can be retained in the computer’s memory, Brann describes that it is the *instructions* that are extracted from the database that are then retained in “the form of arrays of data structures” that direct the Control Program as to which subroutines are to be invoked during execution and in what order. *See id.* at 7:33–43.

Thus, contrary to Patent Owner’s argument that Brann does not teach or suggest a “repository” including “a first module including a plurality of instruction sets” because the list and order of subroutines to be invoked is an ‘action’ by the Control Program that is not stored in a repository or database, and that Brann’s “function pointers” are also not stored in a database, but are created “by the Control Program when it first begins executing,” *see* Prelim. Resp. 37–38 (quoting Ex. 1003, 7:50–51), Brann instead describes the invocation of subroutines and use of function pointers in the context of *execution* or *runtime*. *See* Ex. 1003, 11:13–17, 11:19–20. Brann describes that the “methods table itself contains a name for an *executable* subroutine (i.e., a Method),” in which “[t]hat name is used by the Control Program to *derive* the executable function reference of the appropriate subroutine *when it reads the database*.” *Id.* at 11:13–17 (emphasis added). Brann further describes that the Control Program “then *resolves* the reference to find the

subroutine and execute the subroutine.” *Id.* at 11:19–20 (emphasis added). Further, Brann describes that “[i]n order to determine the function pointers to all the required subroutines, the *database* contains a unique string of characters for each available subroutine (this is the function name and is actually coded into each subroutine),” in which the “Control Program contains a function which can convert these function names into function pointers.” *Id.* at 7:44–49 (emphasis added). Brann’s “data array” and “function pointer” are therefore described in the context of executing the *instructions extracted from the database* by the Control Program. *See id.* at 7:33–35. We therefore determine, based on the current record, that Petitioner has presented sufficient evidence that Brann teaches or suggests “a first module including a plurality of instruction sets” of limitation [1.2].

With regard to the claimed “each instruction of each instruction set activating a data element” of limitation [1.2], Patent Owner argues that “the *Control Program* ‘derives the appropriate action to be taken’ including forming ‘a list of subroutines to be invoked and an order in which they should be invoked.’” Prelim. Resp. 39 (quoting Ex. 1003, 7:23–27) (emphasis added). While Patent Owner’s argument potentially raises the question of whether it is the “Control Program” in Brann that activates the subroutines, *see* Ex. 1003, 7:23–27, Fig. 3, we note that the Houh Declaration, relied upon by Petitioner as support for the teaching of this element, refers to Brann, which provides: “causing the control program to obtain from the database, upon receipt of a source message, *the instructions in the database to direct the control program and call upon identified translation method programs* to translate the source message to a corresponding target message.” Ex. 1002 ¶ 87 (quoting Ex. 1003, 21:9–18) (emphasis added). This provides support that it is the “instructions in the

database” which activate the translation method programs, or subroutines. *See* Ex. 1003, 21:9–18. We therefore determine, based on this current record, that Petitioner has presented sufficient evidence that Brann teaches or suggests limitation [1.2] for purposes of institution. However, we invite the parties to develop the arguments related to this issue further at trial, to the extent permitted under our rules.

Based on our review and consideration of the current record, we determine that Petitioner has sufficiently shown that Brann teaches or suggests limitation [1.2] for purposes of institution.

d. Limitation [1.3]

Limitation [1.3] recites “an active component connected to the repository having an input for loading data from the source applications, and an output for populating the destination applications with processed data, the active component processing the data from the source applications by activating data elements according to the plurality of instruction sets in the module.” Ex. 1001, 9:61–67.

Petitioner contends that limitation [1.3] would have been obvious over Brann. *See* Pet. 32–36 (citing Ex. 1002 ¶¶ 90–99; Ex. 1003, Abstract, Fig. 3, 2:65–68, 3:16, 7:33–35, 8:6–7, 11:31–33, 12:6–10, 12:41–42, 14:20–23; Ex. 1010). At this stage of the proceeding, Patent Owner presents no arguments specifically related to limitation [1.3]. *See generally* Prelim. Resp.

After reviewing Petitioner’s arguments and information regarding limitation [1.3], including the Houh Declaration, which, as noted, are not disputed by Patent Owner at this stage, we are persuaded that Petitioner sufficiently demonstrates, for purposes of this Decision, that limitation [1.3]

would have been obvious to a person having ordinary skill in the art in view of Brann.

e. Conclusion Regarding Independent Claim 1

Based on the current record, and for the reasons set forth above, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in its challenge to at least claim 1 as being unpatentable based on obviousness over Brann, which is sufficient for institution. *See* 35 U.S.C. § 314(a).

3. Analysis of Claims 3, 4, and 7

Claims 3, 4, and 7 depend from independent claim 1. Because we preliminarily determine above that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenge to claim 1 of the '178 patent, we institute *inter partes* review on all claims and grounds. *See* 37 C.F.R. § 42.108(a) (“When instituting . . . review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”). At this stage of the proceeding, it is therefore not necessary for us to provide an assessment of every challenge raised by Petitioner as to dependent claims 3, 4, and 7. Such challenges, in our view, are best resolved at trial following full development of the record.

4. Analysis of Claim 8

Claim 8 depends from claim 1 and adds the limitation “wherein the destination applications are included within an ERP product.” Ex. 1001, 10:23–24.

Petitioner asserts that “ERP products were well known to a POSITA at the relevant time,” Pet. 40 (citing Ex. 1001, 1:38–47), and states that “ERP products provide applications for business functions such as accounting, purchasing, and other financial matters.” *Id.* (citing Ex. 1001,

1:38–47). Petitioner argues that the additional limitation of claim 8 is met by Brann and, specifically, asserts that Brann “discusses an example of an integration problem and financial data that are typical of ERP systems.” *Id.* at 40–41. Pointing to Brann’s description of “the conversion of a monetary currency code from one arbitrary form . . . into another,” *id.* at 41 (citing Ex. 1003, 8:25–28), Petitioner contends that “[t]his type of financial application would typically be part of an ERP product.” *Id.* (citing Ex. 1001, 1:38–47). Petitioner therefore asserts that “a POSITA would understand the transformations from a monetary currency code from one arbitrary form into another for use by the target application as described in Brann to render obvious the recited limitation.” *Id.* (citing Ex. 1002 ¶¶ 113–116).

Patent Owner disputes that Brann teaches or suggests the additional limitation of claim 8. Prelim. Resp. 43. With reference to Petitioner’s reliance on Brann’s disclosure of a “monetary conversion” as being a “type of financial application” that “would be typically part of an ERP product,” *id.* (quoting Pet. 40–41 (citing Ex. 1003, 8:25–28)), Patent Owner contends that “[t]here is no teaching or suggestion in Brann that such an example conversion is an application” and asserts that “[n]or does Brann teach or suggest that it is included in an ERP product.” *Id.* Patent Owner therefore contends that Brann does not teach or suggest the additional limitation of claim 8. *Id.*

On the present record, we are persuaded that Petitioner sufficiently shows that Brann teaches or suggests the additional limitation of claim 8. As discussed above, Petitioner asserts that ERP products can include financial applications. *See* Pet. 40–41. Based on the ’178 patent’s disclosure that ERP products “may replace many individual business function applications” with a suite of applications encompassing “business operations including

accounting, purchasing, shipping and receiving, human resources, etc.,” Ex. 1001, 1:43–47, we preliminarily determine that there is support for Petitioner’s assertion that ERP products can include financial applications.

Further, at this stage of the proceeding, Petitioner has sufficiently shown that Brann teaches or suggests that the “destination applications are included within an ERP product.” As discussed above, as a “type of financial application [that] would typically be part of an ERP product,” Pet. 40–41 (citing Ex. 1001, 1:38–47), Petitioner directs us to Brann’s description of “the conversion of a monetary currency code from one arbitrary form . . . into another.” *Id.* at 41 (citing Ex. 1003, 8:25–28). With support from the Houh Declaration, Petitioner asserts that this monetary conversion in Brann is done “for use by the target application.” *Id.* (citing Ex. 1002 ¶¶ 113–116). According to the Houh Declaration, the monetary conversion is a type of conversion for a financial application that would “typically be part of an ERP product,” and the Houh Declaration refers to Brann’s description that “one area in which the problem of data integration arises is for large scale, batch data processing tasks, such as payroll production.” Ex. 1002 ¶ 115 (citing Ex. 1003, 1:16–30). The Houh Declaration therefore states that “a POSITA would have known that one example of the targets of Brann would be an application in an ERP system.” *Id.* Given that this testimony by Petitioner’s declarant is supported by Brann’s description of a need for data integration in the financial area, we give weight to this testimonial evidence, and we therefore preliminarily determine that there is sufficient evidence that Brann teaches or suggests that the “destination applications are included within an ERP product.”

While Patent Owner argues that Brann’s “example conversion” is neither “an application” nor is it “included in an ERP product,” Prelim.

Resp. 43, we do not agree. The additional limitation of claim 8 requires that the “*destination applications are included* within an ERP product.” Ex. 1001, 10:23–24 (emphasis added). Our emphasis underscores that the additional limitation of claim 8 only requires that the “destination” applications be in an ERP product. The entirety of Brann’s disclosure therefore does not need to be directed to ERP products, nor is it required that it be identified as an ERP product itself. As discussed above, Petitioner has sufficiently shown, for purposes of institution, that a person of ordinary skill in the art would have known that “one example of the targets of Brann would be an application in an ERP system.” *See, e.g.*, Ex. 1002 ¶ 115.

F. Remaining Grounds

As set forth in Section II.E. *supra*, Petitioner additionally challenges claims 1–5, 7, 9, 10, and 23–25 as unpatentable over Suresh; claims 1–5, 7, 9, 10, and 23–25 as unpatentable over Suresh and Brann; claims 8 and 19 as unpatentable over Suresh and Beauchamp; and claims 8 and 19 as unpatentable over Suresh, Brann, and Beauchamp. *See* Pet. 15, 41–85. Patent Owner expressly disputes at least some of these contentions and asserts additional arguments related thereto in support of denying the Petition. *See* Prelim. Resp. On the record before us, we have considered the parties’ additional challenges and arguments. However, given that Petitioner’s showing is sufficient with regard to at least claims 1 and 8 as being obvious over Brann, as discussed *supra*, we need not, for purposes of institution, further address the additional grounds presented by Petitioner, or Patent Owner’s additional arguments related thereto, at this juncture.

Because we determine above that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenge of at least one claim of

the '178 patent, we institute *inter partes* review on all claims and grounds. See 37 C.F.R. § 42.108(a).

IV. CONCLUSION

For the above reasons, we determine that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of claims 1–5, 7–10, 19, and 23–25 of the '178 patent challenged in the Petition. Accordingly, we institute an *inter partes* review of all challenged claims based on all asserted grounds of unpatentability set forth in the Petition. See 35 U.S.C. § 314(a)(1) (2018); 37 C.F.R. § 42.108(a); *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1354, 1359–60 (2018); Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019)²² at 5 (“The Board will not institute on fewer than all claims or all challenges in a petition.”).

Our factual findings, conclusions of law, and determinations at this stage of the proceeding are preliminary, and based on the evidentiary record developed thus far. Petitioner bears the burden to demonstrate unpatentability, and that burden never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). This is not a final decision as to the patentability of claims for which *inter partes* review is instituted. Our final decision will be based on the record as fully developed during trial. This Decision therefore leaves undecided any remaining fact issues necessary to determine whether sufficient evidence supports Petitioner’s contentions by a preponderance of the evidence in the final written decision. See *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that “there is a significant difference between a petitioner’s burden to establish a ‘reasonable likelihood

²² Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

of success’ at institution, and actually proving invalidity by a preponderance of the evidence at trial” (quoting 35 U.S.C. § 314(a) and comparing *id.* § 316(e)).

V. ORDER

Upon consideration of the record before us, it is:

ORDERED that, pursuant to 35 U.S.C. § 314, an *inter partes* review of claims 1–5, 7–10, 19, and 23–25 of the ’178 patent is hereby instituted based on all grounds of unpatentability set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), an *inter partes* review of claims 1–5, 7–10, 19, and 23–25 of the ’178 patent shall commence on the entry date of this Decision, and notice is hereby given of the institution of trial.

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Patent 6,308,178 B1

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