

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CERNER CORPORATION,
Petitioner,

v.

CLINICOMP INTERNATIONAL, INC.,
Patent Owner.

IPR2018-01634¹
Patent 6,665,647

Before WILLIAM V. SAINDON, BARRY L. GROSSMAN, and
CHRISTOPHER C. KENNEDY, *Administrative Patent Judges*.

GROSSMAN, joined by SAINDON as to the Final Written Decision and the Motion to Exclude Evidences, and joined by KENNEDY as to the Final Written Decision, the Motion to Exclude Evidences, and the Motion for Supplemental Information.

JUDGMENT

Final Written Decision
Determining Some Challenged Claims Unpatentable
35 U.S.C. § 318(a)
Denying Petitioner's Motion to Exclude Evidence
37 C.F.R. § 42.64
Denying Petitioner's Motion for Supplemental Information
37 C.F.R. § 42.123

¹ IPR2019-00926 has been joined with this proceeding.

I. INTRODUCTION

A. *Background and Summary*

Cerner Corporation (“Petitioner”) filed a petition to institute an *inter partes* review of claims 1–25 and 50–55 (the “Challenged Claims”) of U.S. Patent 6,665,647 (the “’647 patent”). Paper 1 (“Petition” or “Pet.”). Clinicom International, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”).

We concluded that Petitioner satisfied the burden, under 35 U.S.C. § 314(a), to show that there was a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims. Accordingly, on behalf of the Director (37 C.F.R. § 42.4(a)), and in accordance with *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1353 (2018), we instituted an *inter partes* review of all the challenged claims, on all the asserted grounds. Paper 7 (“Dec. Inst.”).

Patent Owner filed a Response. Paper 13 (PO Resp.). Petitioner filed a Reply. Paper 16 (“Reply”). Patent Owner filed a Sur-reply. Paper 21 (“Sur-reply”).

Petitioner submitted 42 exhibits (Exs. 1001–1037, 1041–1045). Petitioner relies, in part, on the Declaration testimony of Dr. Walter Sujansky (Ex. 1027).

Patent Owner submitted ten exhibits (Exs. 2001–2010). Patent Owner relies, in part, on the Declaration testimony of Dr. Bryan Bergeron (Ex. 2005) and of Mr. Jae A. Evans (Ex. 2010).

Petitioner filed a Motion for Supplemental Evidence seeking evidence of asserted inconsistencies between Patent Owner’s arguments in this IPR proceeding and in related litigation in Federal district court. Paper 25 (“Mot.

Supp. Evid.”). Patent Owner filed an opposition to this motion. Paper 30 (“PO Opp. Mot. Supp. Evid.”).

Petitioner also filed a Motion to Exclude exhibits 2008, 2009, and portions of Ex. 2005. Paper 26 (“Mot. Excl.”). Patent Owner filed a Response to the Motion to Exclude. Paper 33 (“Resp. Mot. Excl.”). Petitioner filed a Reply. Paper 35 (“Reply Mot. Excl.”).

A hearing was held December 3, 2019. Paper 36 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. We enter this Final Written Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

Petitioner has the burden of proving unpatentability of a claim by a preponderance of the evidence. 35 U.S.C. § 316(e).

Based on the findings and conclusions below, we determine that Petitioner has proven that claims 50–55 are unpatentable. We also determine that Petitioner has not proven that claims 1–25 are unpatentable.

We deny Petitioner’s Motion to Exclude Evidence.

We deny Petitioner’s Motion to Submit Supplemental Information.

B. Real Parties in Interest

Petitioner states that Cerner Corporation is the real party-in-interest for this Petition. Pet. 2.

Patent Owner states that CliniComp International, Inc. is the real party-in-interest for Patent Owner. Paper 32, 1.

The parties have not disputed the identifications of the real parties-in-interest in this proceeding.

C. Related Matters

Petitioner and Patent Owner identify two related proceedings. Pet. 2–3; Paper 32, 1. These are (1) *CliniComp Int’l, Inc. v. Cerner Corp.*, No. 3:17-cv-02479, filed on December 11, 2017, pending in the U.S. District

Court for the Southern District of California; and (2) *CliniComp Int'l, Inc. v. athenahealth, Inc.*, No. 1:18-cv-00425, filed on May 21, 2018, pending in the U.S. District Court for the Western District of Texas. *Id.*

II. THE '647 PATENT

In the specific context of managing health care information and electronic medical and related records, the '647 patent discloses a system and method for combining data created by “legacy” software with data from “remotely hosted” software. Ex. 1001, 2:55–63. The '647 patent refers to the remotely hosted software as “turnkey health care^[2] applications.” *E.g.*, *id.* at Abstract, 2:61–65. Users access the remotely hosted software using a public network, such as the Internet. *Id.* at 2:63–65. The alleged benefit of the system disclosed in the '647 patent is that it avoids investing substantial capital in computer hardware and software, and, instead, allows payment for the software to be based on an as-used basis. Ex. 1001, 9:46–51. This system is intended to be used by “health care enterprises,” which are, for example, hospitals, clinics, physician groups, and Health Maintenance Organizations (HMOs). *Id.* at 1:29–36.

According to the disclosure of the '647 patent, at the time the application that matured into the '647 patent was filed, many health care enterprises used computer systems on a local area network within their facilities. *Id.* at 1:50–51. These computer systems performed a variety of discrete functions, such as, for example, “patient care management,” . . . accounting, insurance, and administrative functions.” *Id.* at 1:52–58.

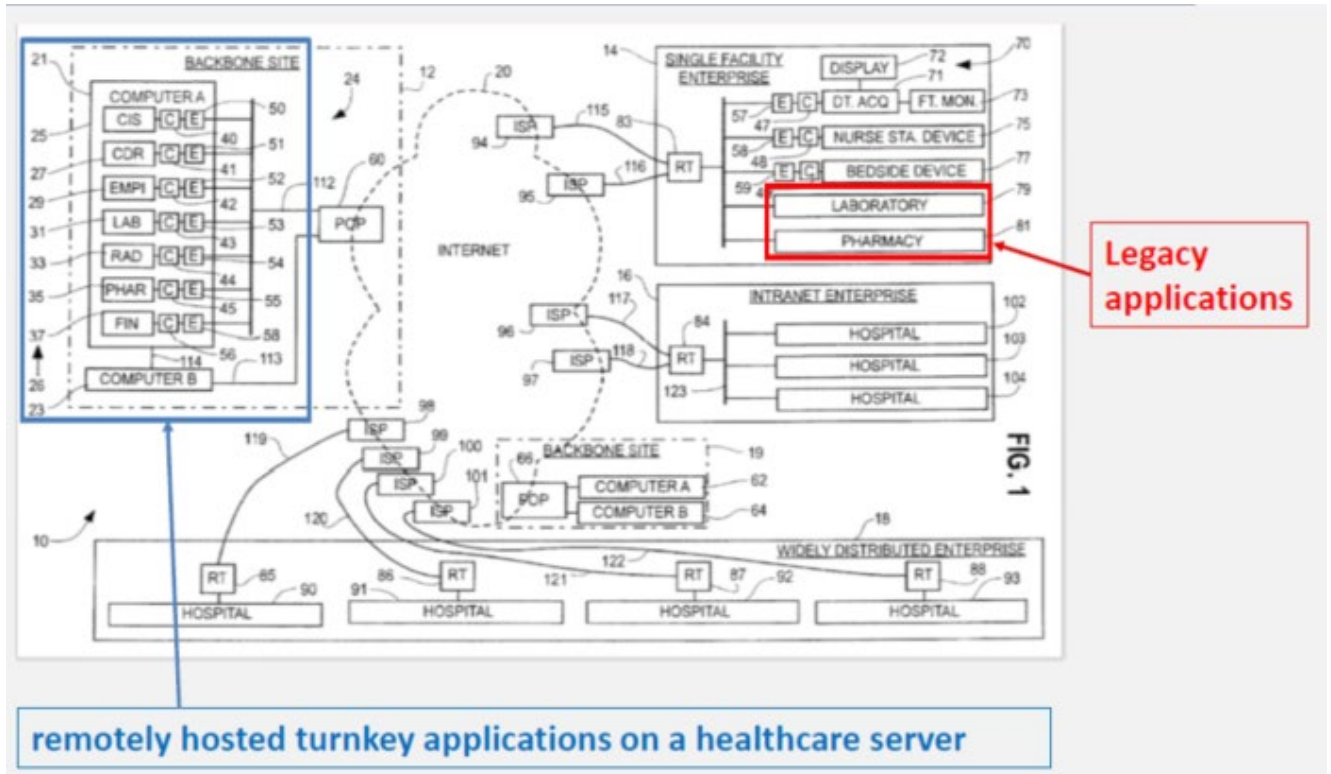
² The '647 patent variously uses the term “healthcare” and “health care.” When quoting the Specification we will quote the term used in the patent. Otherwise, we will use the two-word phrase “health care.”

According to the disclosure, the existing 1999-era systems were difficult and expensive to update and expand. *Id.* at 1:63–2:5.

In an attempt to overcome the disadvantages of prior health care enterprise computer systems, the disclosed invention uses “remotely hosted” applications. *Id.* at 3:2–11. The remotely hosted applications and servers are owned by a vendor, not the enterprise. The enterprise uses the remotely hosted applications “on a fee basis . . . as utilized.” *Id.* at 9:47–52.

The “remotely hosted” applications are software, such as laboratory software, radiology software, pharmacy software, and financial software used in managing the health care enterprise. *Id.* at 6:7–23. The disclosed system, however, also allows an enterprise to maintain certain existing, or “legacy,” applications, while upgrading or adding other applications. *Id.* at 3:12–18.

The following annotated version of Figure 1 from the ’647 patent is a block diagram showing the disclosed enterprise healthcare management system, annotated to highlight the disclosed “remotely hosted” applications and the “legacy” applications. *See, e.g.*, Ex. 1001, 3:33–35, 4:17–20, 6:9–23, 8:31–42.



Annotated Fig. 1.

As shown generally in Figure 1, the various users within the enterprise are connected to the “remotely hosted” applications server 24 through the Internet. Remote server 24 is based in what the ’647 patent refers to as a “backbone site,” shown at reference numeral 12. *Id.* at 1:65–67. The various users are represented in Figure 1 by single facility 14, Intranet³ facility 16, or widely distributed facility 18, all connected to remote server 24 by the Internet. *Id.* at 4:56–61, 7:52–67.

Remote server 24 operates a suite of health care software applications 26 for managing a health care enterprise. Ex. 1001, 4:15–16, 6:7–9. The

³ Figure 1 shows user 16 as an “Intranet Enterprise.” The Specification, at one point, refers, in error, to this as an “internet” enterprise 16 (*see* Ex. 1001, 4:9). *See also e.g., id.* at 8:46–49 (disclosing “intranet enterprise 16 comprises hospital 102, hospital 103, and hospital 104 connected with the intranet 123”).

suite of health care software applications 26 “comprise a turnkey health care management system.” *Id.* at 4:17–20. As shown in Figure 1, the remotely-hosted applications may include clinical information system 25, laboratory software 31, radiology software 33, pharmacy software 35, and financial software 37. *Id.* at 6:9–23. Remote server 24 also includes a “clinical data repository” 27. *Id.* at 24–25. Clinical data repository 27 “stores multi-disciplinary information on a wide variety of enterprise functions.” *Id.* at 6:32–33. This information is used for preparing “reports on enterprise performance.” *Id.* at 6:34–35. Application software suite 26 “also includes an Enterprise Master Patient Index (EMPI) for managing access” to application server 24. *Id.* at 6:41–43. The EMPI has authorization and security information for establishing access rights for users. *Id.* at 6:43–44. The EMPI also has basic patient information for assuring that information entered into any application is related to a valid patient. *Id.* at 6:45–47.

If an enterprise wants to continue to use an existing “legacy” program, information or data from the legacy program is simply transmitted to clinical data repository 27 and stored therein. *Id.* at 4:43–53. Thus, for example, the health care enterprise may continue to use a legacy program, but the data from the legacy program is still available to the enterprise healthcare management software for producing reports comprising multi-disciplinary information. *Id.*

As an example of the system in use, referring to annotated Figure 1, reproduced above, single facility enterprise 14 already has legacy laboratory software 79 and pharmacy software 81 that it wants to continue to use. Thus, the single facility enterprise does not need laboratory software 31 or pharmaceutical software 35 operating on the application server to perform day-to-day operations. Ex. 1001, 8:31–42. In this example, the suite of

applications available to users of the system would *not* duplicate the retained legacy applications. *Id.* at 13:20–23; *see also* Fig. 7 (illustrating in block 360 the step of authorizing use of applications in application suite 26 “that are not duplicative of retained legacy applications”). In the Figure 1 example, the *information* collected and used locally in the laboratory software 79 and pharmacy software 81 is provided to central data repository 27 at application server 24, which operates suite of software applications 26. *Id.* at 8:31–42. Thus, the database of information in clinical data repository 27 relating to single facility enterprise 14 contains complete information, including information from local, legacy software, even if the enterprise does not use all the applications in the remotely-hosted suite of applications. *Id.* at 8:31–42. This allows the enterprise to maintain in central depository 27 complete data on the entire enterprise.

In Figure 2, block 208 shows that information is entered into one of the applications running on the remote application server from “an end-user device.” *Id.* at 9:53–59. The entered information is used to perform an application function as shown in block 209. The disclosure states that “[a]t this point, the end-user and the application server are communicating interactively to perform a day-to-day function as shown in block 210.” *Id.*

This system also has application, as shown in Figure 1, to a healthcare enterprise that includes several hospitals 102, 103, 104 linked by an intranet (*id.* at 8:46–65), or to facilities linked by a widely distributed network (*id.* at 8:66–9:12); *see also id.* at 4:8–10 (“a health care enterprise may be configured as a single facility enterprise 14, an Internet enterprise 16, or a widely distributed enterprise 18.”).

When multiple enterprises are involved, clinical data repository 27 may have multiple partitions, with each partition holding health care

management information for an enterprise. Ex. 1001, 9:13–23. This allows reports indicating the performance of a single enterprise or multiple enterprises. *Id.*

One of the asserted advantages of the disclosed system is that a service provider owns, operates, and manages the computing infrastructure and resources, which are made available to users on an on-demand, pay-as-you-go basis. *Id.* at 9:47–52. As disclosed in the '647 patent, the system and method is a “turnkey health care management solution” that “can be quickly implemented with little risk to the enterprise.” Ex. 1001, 2:66–3:1. Also, because the turnkey applications are remotely hosted, the enterprise can use the turnkey applications with minimal capital investment. *Id.* at 3:2–4. To use the healthcare management system, the enterprise need not invest substantial capital in computer hardware and software, but instead uses the healthcare management system “on a fee basis . . . as utilized.” *Id.* at 9:47–52.

A. Illustrative Claim

Claims 1 and 50 are the only independent claims challenged. All other challenged claims depend, directly or indirectly, from either claim 1 or claim 50. Claim 1 is representative and is reproduced below.

1. A method of operating an enterprise healthcare management system for a first healthcare enterprise facility and a second healthcare enterprise facility independent of the first healthcare enterprise facility, comprising:

establishing a first secure communication channel via a public network between an application server and a first end user device in the first enterprise facility and establishing a second secure communication channel via the public network between the application server and a second end user device in the second enterprise facility, the application server remotely hosting a healthcare application and having a database;

receiving first healthcare data from the first end user and second healthcare data from the second end user;

processing the first healthcare data and the second healthcare data with the healthcare application;

storing the processed first healthcare data in a first portion of the database associated with the first healthcare enterprise facility and storing the processed second healthcare data in a second portion of the database associated with the second healthcare enterprise facility;

configuring the database to accept legacy information derived from a legacy application operating at each of the first and second healthcare enterprise facilities, wherein the functions in the healthcare application are not duplicative of the legacy application; and

generating a query to extract information from the database relevant to a respective one of the first and second healthcare enterprise facilities derived from the healthcare data and the legacy information for managing and tracking a performance of the respective one of the first and second healthcare enterprise facilities,

wherein healthcare data in the first portion of the database is only accessible to the first end user device and healthcare data in the second portion of the database is only accessible to the second end user device.

Ex. 1001, 14:8–45. Independent claim 50 is similar to claim 1. Claim 1, however, includes additional limitations, not included in claim 50, requiring two enterprise facilities each accessing their respective data and applications over their own secure communication channel. Claim 50 is, therefore, broader in its scope than claim 1.

B. Priority Date

The application that matured into the '647 patent was filed on June 30, 1999. Ex. 1001, [22]. The '647 patent also states it is a “continuation-

in-part” of patent application No. 08/977,522 (“the ’522 application”), filed on November 24, 1997. *Id.* at [63]. The effective filing date, or priority date, of the challenged claims is important in this case to determine whether the references relied on by Petitioner are available to be cited against the challenged claims.

Petitioner asserts the priority date of the challenged claims is the actual filing date, June 30, 1999. Pet. 12–15. Accordingly, we first discuss the priority date in view of the ’647 patent’s reference to continuation-in-part status.

In our Decision to Institute this *inter partes* review, we determined that the evidence establishes that the challenged claims are *not* supported by the disclosure of the ’522 application. Dec. Inst. 7–12. Accordingly, we held that the challenged claims in the ’647 patent are entitled only to their actual filing date, which is June 30, 1999. *Id.* at 12.

Neither Patent Owner’s Preliminary Response, its Response, nor its Sur-reply, however, presented argument or evidence addressing the priority date issue raised by Petitioner.

At the hearing in this case, Patent Owner’s counsel stated that they are accepting the determination in our Decision to Institute that the priority date of the ’647 patent is its actual filing date. Tr. 35:21–36:18 (Q. . . . are you accepting the decision in our decision to institute that the priority is the actual filing date?” A. “I think we’ve decided to accept it . . .”). Accordingly, Patent Owner agrees with Petitioner that the filing date of the ’647 patent is its actual filing date of June 30, 1999.

III. ANALYSIS

A. Prior Art and Asserted Grounds

Petitioner asserts that the Challenged Claims would have been unpatentable on the following four grounds (Pet 4)⁴:

Claim(s) Challenged	35 U.S.C. §⁵	References
50–52	103	Evans ⁶
53, 54	103	Evans, Rai ⁷
1–5, 10–13, 15–25, 50–53, 55	103	Johnson, ⁸ Evans
6–9, 14, 54	103	Johnson, Evans, Rai

B. Legal Standards

Section 103(a) forbids issuance of a patent when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR*, 550 U.S. at 406. The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences

⁴ We list the Grounds in the same order as stated by Petitioner.

⁵ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 296–07 (2011), took effect on September 16, 2012. The changes to 35 U.S.C. §§ 102 and 103 in the AIA do not apply to any application filed before March 16, 2013. Because the application for the patent at issue in this proceeding has an effective filing date before either of these dates, we refer to the pre-AIA version of the statute.

⁶ PCT Application WO98/13783, published April 2, 1998 (“Evans”). Ex. 1002.

⁷ U.S. Patent 6,377,982, issued April 23, 2002, filed Aug. 24, 1998 (“Rai”). Ex. 1007.

⁸ U.S. Patent 6,915,265, issued July 5, 2005, filed October 29, 1997 (“Johnson”). Ex. 1003.

between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when available, evidence such as commercial success, long felt but unsolved needs, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *see KSR*, 550 U.S. at 407 (“While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.”). The Court in *Graham* explained that these factual inquiries promote “uniformity and definiteness,” for “[w]hat is obvious is not a question upon which there is likely to be uniformity of thought in every given factual context.” 383 U.S. at 18.

The Supreme Court made clear that we apply “an expansive and flexible approach” to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To reach this conclusion, however, it is not enough to show merely that the prior art includes separate references covering each separate limitation in a challenged claim. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness additionally requires that a person of ordinary skill at the time of the invention “would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention.” *Id.*; *see also Orexo AB v. Actavis Elizabeth LLC*, 903 F.3d 1265, 1273 (Fed. Cir. 2018) (“The question is not whether the various references separately taught components of the ’330 Patent formulation, but whether the prior art suggested the selection and combination achieved by the ’330 inventors.”).

Moreover, in determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 164 (Fed. Cir. 1985) (“It is elementary that the claimed invention must be considered as a whole in deciding the question of obviousness.” (citation omitted)); *see also Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1537 (Fed. Cir. 1983) (“[T]he question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious. Consideration of differences, like each of the findings set forth in *Graham*, is but an aid in reaching the ultimate determination of whether the claimed invention as a whole would have been obvious.” (citation omitted)).

“A reference must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect.” *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985).

As a factfinder, we also must be aware “of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” *KSR*, 550 U.S. at 421. This does not deny us, however, “recourse to common sense” or to that which the prior art teaches. *Id.*

Against this general background, we consider the references, other evidence, and arguments on which the parties rely.

C. Level of Ordinary Skill in the Art

Considering the significant role of “a person of ordinary skill” in determining patentability, it is surprising that neither the Petition⁹ nor the

⁹ See 37 C.F.R. § 42.104 (stating the requirements of a petition).

Preliminary Response provided a statement of what was the ordinary level of skill in the art at the time of the invention. *See Koninklijke Philips N.V., v. Google LLC et al*, No. 2019-1177, slip op. at 12 (Fed. Cir. Jan. 30, 2020) (“the inquiry into whether any ‘differences’ between the invention and the prior art would have rendered the invention obvious to a skilled artisan necessarily *depends on such artisan’s knowledge*.” (emphasis added)).

For purposes of our Decision to Institute, we adopted a level of ordinary skill based on the prior art. Dec. Inst. 14.

Petitioner also did not address the level of skill in its Reply, although it did cite to Dr. Sujansky’s opinion defining the level of ordinary skill in the relevant technology. Reply 15 (citing Ex. 1027 ¶ 22).¹⁰ Patent Owner did not address the level of skill in its Response or in its Sur-reply. Although Dr. Bergeron stated his opinion of the level of ordinary skill applicable in the proceeding before us (*see* Ex. 2005 ¶ 29), Patent Owner did not cite to his Declaration testimony on this issue.¹¹

¹⁰ *See Cisco Systems, Inc. v. C-Cation Technologies, LLC*, IPR2014-00454, Paper 12, slip op. at 9–10 (PTAB Aug. 29, 2014) (Informative) (Holding that the “practice of citing the Declaration to support conclusory statements that are not otherwise supported in the Petition also amounts to [improper] incorporation by reference [under 37 C.F.R. § 42.6(a)(3)],” and refusing to “consider arguments that are not made in the Petition, but are instead incorporated by reference to the cited paragraphs [in a] Declaration). Here, we exercise our discretion and consider this evidence. Patent Owner has not objected to Dr. Sujansky’s testimony on this issue.

¹¹ *See DeSilva v. DiLeonardi*, 181 F.3d 865, 866–67 (7th Cir. 1999) (“A brief must make all arguments accessible to the judges, rather than ask them to play archeologist with the record.”). Here again, we exercise our discretion and consider this evidence. Petitioner has not objected to Dr. Bergeron’s testimony on this issue. The role of expert testimony is to help the trier of fact, here the Board, “understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702(a). Because we find the testimony of both experts

Dr. Sujansky, Petitioner's expert declarant (*see* Ex. 1027 ¶ 22), and Dr. Bergeron, Patent Owner's expert Declarant (*see* Ex. 2005 ¶ 29), each state an opinion of what is the skill level of a person of ordinary skill.

Dr. Sujansky testifies:

Based on my experience as a researcher, educator, author, and consultant in the area of medical informatics, it is my opinion that persons of ordinary skill in the art at the time the application for the '647 Patent was filed (*i.e.*, June of 1999), possessed: (1) at least a Bachelor's degree in management information systems, computer science, or computer or electrical engineering or its equivalent; (2) 4–5 years of experience working in either the field of medical informatics and/or the field of healthcare information technology; and (3) a working understanding of computer programming, database architecture and functionality, computer networking, and their applications in healthcare settings, either through education or experience of the equivalent thereof.

Ex. 1027 ¶ 22¹².

Dr. Bergeron¹³ has a different opinion of the level of ordinary skill.

Dr. Bergeron testifies:

helpful to the “level of ordinary skill” issue, we exercise our discretion to consider the testimony of both experts on this issue.

¹² Exhibit 1027 is a 218-page Declaration from Walter Sujansky, M.D., Ph.D. Dr. Sujansky has been retained by Petitioner to serve as an expert witness in this case. Ex. 1027 ¶ 2. Dr. Sujansky earned a Bachelor of Arts in Economics, cum laude, while minoring in pre-medical sciences, from Harvard College. He obtained Doctor of Medicine and Doctor of Philosophy in Medical Information Sciences degrees from Stanford University. *Id.* ¶ 5. He has more than 25 years of experience in the field of medical informatics. *Id.* ¶ 6; *see also* Ex. 1026 (providing a comprehensive summary of Dr. Sujansky's academic and employment history).

¹³ Dr. Bergeron's Declaration is 115 pages. He earned an M.D. degree and was a post-doctoral research fellow in medical informatics at Brigham & Women's Hospital, a Harvard Medical School teaching hospital. Ex. 2005 ¶ 7. For approximately 25 years, Dr. Bergeron has taught in the Harvard-MIT Program in Health Sciences and Technology, which is a collaboration

A person of ordinary skill in the art relevant to the '647 patent at the time of the invention would have: 1) at least three years of computer network experience and at least one of those years in a clinical environment; and 2) a working understanding of databases and database programming as well as general programming in a clinical environment.

Ex. 2005 ¶ 29. Dr. Bergeron also testifies that his “description of the level of ordinary skill in the art “is similar” to Dr. Sujansky’s opinion. *Id.* at ¶ 30. Additionally, Dr. Bergeron states that his opinions, as set forth in his Declaration, “would be the same under either [his] or Dr. Sujansky’s proposal.” *Id.*

At the hearing, Patent Owner also stated, “I don't think the level of skill in the art makes a difference here” Tr. 72:3–4. We have not been directed to any evidence in the record that Petitioner agrees with this position.

Even though we may agree that the choice between Petitioner’s position and Patent Owner’s position regarding the level of skill is not outcome determinative in this case, it is, however, “always preferable for the factfinder . . . to specify the level of skill it has found to apply to the invention at issue.” *Trustees of Columbia Univ. in City of New York v. Illumina, Inc.*, 620 F. App’x. 916, 922 (Fed. Cir. 2015) (quoting *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir.2001)). Another reason for making a specific finding is:

between MIT, Harvard Medical School, Harvard University, and Boston area teaching hospitals that integrates science, medicine, and engineering to solve problems in human health. *Id.* at ¶ 6. He has taught electronic courseware design, and the use of information technology in healthcare (i.e., medical informatics). He has extensive business experience with electronic medical and health record systems. *Id.* at ¶¶ 8–26.

“The *Graham* analysis includes a factual determination of the level of ordinary skill in the art. Without that information, a district court cannot properly assess obviousness because the critical question is whether a claimed invention would have been obvious at the time it was made to one with ordinary skill in the art.”

Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc., 807 F.2d 955, 962 (Fed. Cir. 1986). Accordingly, we follow the “preferable” practice of specifying the level of skill in this case.

The Specification and Challenged Claims make repeated references to “healthcare” and “healthcare management systems.” *E.g.*, Ex. 1001, 1 [54] (title), Abstract; 2: 51–58; 13:50–60; 14:8–45. Dr. Sujansky’s proposed level of skill includes specific reference to “4–5 years of experience working in either the field of medical informatics and/or the field of healthcare information technology.” Ex. 1027 ¶ 22. Dr. Bergeron’s proposed level of skill includes only at least year of experience “in a clinical environment.” Ex. 2005 ¶ 29.

Dr. Sujansky also opines that a person of ordinary skill would have had a Bachelor’s degree in management information systems, computer science, or computer or electrical engineering or its equivalent. Dr. Bergeron opines that only “three years of computer network experience” is required to be a person of ordinary skill.

In this case, we determine that the prior art reflects knowledge of information and database management, computers and computer networks, and medical information systems. *See generally* Exs. 1002, 1003, 1007.

Based on the evidence before us, we find that Dr. Sujansky’s proposed level of skill is more appropriate to the subject matter of the ’647 patent. Integrating electronic medical information across multiple formats

and databases was not a simple straightforward project. This was particularly true in 1999, the priority date of the '647 patent. *See generally*, Exs. 2002, 2003, 2004 (Dr. Sujansky's articles discussing the significant challenges of integrating electronic medical and healthcare records); Ex. 2005 ¶¶ 73–93 (Dr. Bergeron's Declaration providing an extended discussion of the challenges of "legacy integration."); Ex. 1030, 90–91 (Dr. Bergeron's book chapter discussing, in part, the "The Challenge of Multiple Environments," and concluding that integrating health care data from a variety of disparate applications into single, centrally managed database "is no easy task."). Based on the totality of the evidence, including the prior art, we determine that Dr. Bergeron's testimony that a person of ordinary skill would *not* have a college degree, would have only three years of computer network experience, only one year of experience in a clinical environment, and merely a "working understanding" of databases and database programming is not sufficient for a person of ordinary skill in 1999 to address the significant challenges of this technology.

Based on the evidence and analysis discussed above, we find that a person of ordinary skill in a technology pertinent to the challenged claims would have had in 1999 (1) at least a Bachelor's degree in management information systems, computer science, or computer or electrical engineering or its equivalent; (2) 4–5 years of experience working in either the field of medical informatics and/or the field of healthcare information technology; and (3) a working understanding of computer programming, database architecture and functionality, computer networking, and their applications in healthcare settings. A recipient of other academic degrees may qualify as a person of ordinary skill if they have taken coursework or have experience in the pertinent technology. Additional education, such as

an advanced degree, could offset less work experience; additional work experience could offset less education or coursework.

D. Claim Construction

The Petition in this case was filed on August 31, 2018. Paper 3. This was before the changes to our rules adopting the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b). *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 1, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018). Thus, the new claim construction rule does not apply to this proceeding.

However, there is no dispute that the '647 patent expired on November 24, 2017. *See* 35 U.S.C. § 154(a)(2); PO Resp. 5 (referring to “expired patents, such as the '647 patent”); *see also* Ex. 3001, 13 (District Court Order concluding “that the '647 patent expired on November 24, 2017”).¹⁴ Because the challenged claims are expired, we construe the claims in accordance with *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1279 (Fed. Cir. 2017) (“The Board construes claims of an expired patent in accordance with *Phillips*.”).

Under the *Phillips* standard, words of a claim are generally given their ordinary and customary meaning. *Phillips*, 415 F.3d at 1312 (“the words of a claim are generally given their ordinary and customary meaning”)

¹⁴ The Court stated: “. . . the Court concludes that the '647 patent expired on November 24, 1997 [sic]. Because the '647 patent expired on November 24, 2017 . . .”. The 2017 date is correct because it is 20 years after the 1997 filing date.

(citations and internal quote marks omitted). “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Id.* at 1313. Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the Specification. *Id.*

“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

We determined that an explicit construction of the claims was not necessary for the purposes of determining whether there was a reasonable likelihood that the Petitioner would prevail with respect to at least one of the claims challenged in the Petition. Dec. Inst. 12–13. For this Final Decision, we determine that a construction of terms disputed by the parties is necessary and will be helpful to a resolution of the dispute before us.

Petitioner proposes a construction for the word “application,” used in claims 1 and 50. Pet. 25–26. Petitioner also proposes a construction for the phrase “the functions in the healthcare application are not duplicative of the legacy application,” which also appears in both independent claims 1 and 50. *Id.*

Patent Owner proposes a construction for the phrase “healthcare application,” used in claims 1 and 50. PO Resp. 9–13. Patent Owner also proposes a construction for the phrase “remotely hosting,” used in claim 1, and the similar phrase “hosting remotely,” used in claim 50. *Id.* at 13–15.

We construe these words and phrases below. As stated above, the words of a claim generally are given their ordinary and customary meaning. *Phillips*, 415 F.3d at 1312–13. To provide this meaning, we look to “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Phillips*, 415 F.3d at 1314 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)).

I. “Application” and “Healthcare Application”

We consider Petitioner’s proposal for the word “application” and Patent Owner’s construction for the phrase “healthcare application” together because they are inextricably related.

Petitioner proposes the word “application” should be construed to mean “software for performing some specific task(s) or function(s).” Pet. 25 (citing Exs. 1021, 1024, 1027 ¶ 98).

Patent Owner proposes that the phrase “healthcare application” should be construed to mean “*turnkey* healthcare software used interactively by end users.” PO Resp. 9 (citing Ex. 2005, ¶¶ 52–59) (emphasis added).

Thus, both parties agree that an application is “software.” We discuss below whether the proper construction requires a more expansive construction.

a) The Claims

We begin with the words of the claims. We make the following findings regarding the claims.

Independent claim 1 uses the word “application” eight times. Ex. 1001, 14:13 (“application server”), 16 (“application server”), 18 (“application server”), 19 (“healthcare application”), 23 (“healthcare

application”), 32 (“legacy application”), 34 (“healthcare application”), 35 (“legacy application”).

Dependent claims 2, 6, 7, 8, 15, 16, 17 recite an “application server.”

Dependent claim 10 recites that “the healthcare application includes a financial application.”

Dependent claim 11 recites that “the healthcare application includes a clinical information management application.”

Dependent claim 12 recites that “the healthcare application includes an outcome application.”

Dependent claim 13 recites that “the healthcare application includes a word processing application.”

Dependent claim 25 refers to a “legacy application” and a “healthcare application.”

Independent claim 50 refers to an “application server,” a “healthcare application,” “application information,” a “legacy application.”

Dependent claim 55 recites that “the healthcare application includes a plurality of applications.”

Many of the unchallenged claims, claims 26–49, also use one or more of the “application” phrases identified above.

The word “application” or the phrase “healthcare application” as used in the claims is consistent with the parties’ view that an “application” is “software.” The claims’ use of the word “application” also is consistent with Petitioner’s proposal that an “application” is “software for performing some specific task(s) or function(s).” Thus, for example, the “financial application” recited in claim 10 is software that performs a financial task or function. *See* Ex. 1001, 6:21–23 (“Financial software 37 provides

accounting and asset management features necessary to operate a modern healthcare enterprise.”).

As stated above, Patent Owner proposes the phrase “healthcare application” should be construed to mean “*turnkey* healthcare software used *interactively* by end users.” PO Resp. 9. This proposed construction presents three issues: (1) what is “healthcare software;” (2) what is “turnkey” software; and (3) what is “interactive” use. There also is the fundamental issue of whether there is any basis for reading one or more of these limitations into the phrase actually used in the claims, which is “healthcare application.” *See Cont’l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 797 (Fed. Cir. 2019), *cert. denied*, No. 19-571, 2019 WL 6689703 (U.S. Dec. 9, 2019) (providing a comprehensive summary and application of the case law on claim construction, and particularly discussing the “fine line between construing the claims in light of the specification and improperly importing a limitation from the specification into the claims”).

(1) “*Healthcare*”

The phrase “healthcare application” is not defined specifically by language in the claims. The written description, however, discussed in the next section of this Decision, provides examples of “health care enterprises.” *See Id.* at 1:29–36. Moreover, Patent Owner’s proposal that a “healthcare application” means “healthcare software” does not provide any specific meaning to the word “healthcare” used in the claims.

(2) “*Turnkey*”

As stated above, Patent Owner proposes that the phrase “healthcare application” should be construed to mean “*turnkey* healthcare software used *interactively* by end users.” PO Resp. 9 (emphasis added). Here, we focus on Patent Owner’s proposal to add the word “turnkey” to the claims. The

construction of “turnkey” is relevant to this case, because, as acknowledged by Patent Owner, “we only win if we persuade you it’s turnkey.” Tr. 59:8–9.

Neither the Challenged Claims nor the unchallenged claims recite the word “turnkey.” As we discuss below, the Specification uses the word “turnkey” more than 20 times. *See* Sur-reply 3 (“It [the Specification of the ’647 patent] also characterizes the invention as using “turnkey” software more than twenty times.”). But, the *claims* are silent about whether the claimed healthcare software is, or is not, “turnkey.” We further address the meaning of “turnkey” in our consideration below of the Specification, particularly the written description, in informing our claim construction of “application” and “healthcare application.”

(3) *Interactively*

For convenient reference, we repeat that Patent Owner proposes that the phrase “healthcare application” should be construed to mean “turnkey healthcare software used *interactively* by end users.” PO Resp. 9 (emphasis added). Here, we focus on Patent Owner’s proposal to add the word “interactively” to the claims.

Claim 1 recites that a step in the claimed method is “receiving first healthcare data from the first end user and second healthcare data from the second end user.” Ex. 1001, 14:20–21. This suggests some input or interaction by the end user with the application server, which remotely hosts a healthcare application and has a database. Claim 1 also recites the step of “generating a query to extract information from the database.” *Id.* at 14:36–37. This query is generated by the end user. These positively recited steps of input by an end user and querying by an end user suggests that the interactive input and output comes from specific claim recitations, not from

a claim construction that reads the word “interactively” into the claim phrase “healthcare application.”

Independent claim 50 also refers to a “healthcare application” and has steps similar to those in claim 1 requiring the end user to interact with the application server remotely hosting a healthcare application. Claim 50 recites the step of “initiating secure communication between end user devices at an enterprise facility and the application server” (*id.* at 18:14–16) and the step of “generating a query to extract information from the database” (*id.* at 18:21–22).

Thus, Patent Owner’s proposed construction that “healthcare application” includes the requirement that the application is “used interactively by end users” would be redundant, at best, and confusing and ambiguous, at worst, with the specifically recited steps in claims 1 and 50, which already recite input from, and thus interaction with, an “end user.”

There also is no persuasive evidence to which we have been directed that the *claims* support a construction that a “healthcare application” must be “interactive,” as proposed by Patent Owner. Thus, the claims do not support Patent Owner’s proposed construction of “healthcare application.” We look next to the Specification.

b) The Specification

(1) “Healthcare”

The phrase “healthcare application” is used throughout the claims, as discussed above. In the written description, the phrase “healthcare application” or “health care application,” however, is used only four times. Ex. 1001, Abstract (“The enterprise healthcare management system and method includes remotely hosting turnkey *health care applications*”), 2:61–63 (“The enterprise healthcare management system and method includes

remotely hosting turnkey *health care applications*”), 13:43–46 (“the application server remotely hosts the suite of *health care applications*, integrates with existing legacy applications, and generates multidiscipline enterprise performance reports”), 13:50–52 (all emphases added). The last use, quoted in full below, is the most substantive in providing insight into the construction of the “healthcare application” phrase used in the claims. After completing the disclosure of several different embodiments of the disclosed invention, the written description states:

Although the embodiments thus far described preferably utilize a suite of *healthcare applications* operating on the application server, other configurations are contemplated. *The enterprise healthcare management system may offer a single application for use throughout the enterprise.* In such a manner the enterprise can add new or augmented capabilities quickly and in a cost effective manner. For example, if a healthcare enterprise desires to add a care management application, such a care management application can be deployed enterprise-wide quickly, with little risk, and with minimal financial investment.

Ex. 1001, 14:50–60 (emphasis added). We recognize that the title of the patent and the claims emphasize use in a health care context. The written description, however, does not share this emphasis. Based on the written description, it is clear that a healthcare application may be a single software program, which may be a “word processing” application (*see* Ex. 1001, 6:38–40). There is no persuasive disclosure in the written description, however, that a single word processing application has any unique characteristic specific to use in a health care enterprise. Nonetheless, it is, as disclosed, a “healthcare application” only because it is an “application,” *i.e.*, it is software, which happens to be used in a health care context. Accepting Patent Owner’s proposed construction of “healthcare application” (*see* PO Resp. 9 (“healthcare application” should be construed to mean “turnkey

healthcare software used interactively by end users” (emphasis added)) suggests that the end *use* of the software, *not its content or function*, determines its “healthcare” label.

Although the written description does not define the phrase “healthcare application,” it does provide examples of “health care enterprises.” As stated in the written description,

Primary health care is typically provided by health care enterprises. These health care enterprises are, for example, hospitals, clinics, physician groups, or even Health Maintenance Organizations (HMOs). Health care enterprises can be expansive, encompassing hundreds of doctors and many point of care facilities, or can be more modest in size. Indeed, many health care enterprises consist of only a single facility such as a hospital.

Ex. 1001, 1:29–37.

The phrase “healthcare application” used throughout the claims must have some meaning other than the meaning of the word “application” used alone. We determine that, based on the written description, the meaning of a “healthcare application” is an “application”, or software for performing some specific task or function, that is used by a healthcare enterprise.

(2) *Turnkey*

As stated above, the written description uses the word “turnkey” more than 20 times. *E.g.*, Ex. 1001, 2:61–65 (“The enterprise healthcare management system and method includes remotely hosting *turnkey* health care applications and providing enterprise users access to the *turnkey* applications via a public network such as the Internet.”) (emphases added); Sur-reply 3. Patent Owner argues that its “construction also is supported by the specification.” PO Resp. 10–11. Patent Owner’s justification for its proposed construction is merely to cite several of the more than 20 times the

word “turnkey” or the word “interactively” are used in the written description. *Id.*

The written description, however, does not define or otherwise indicate what structure, function, or method step the word “turnkey” is intended to add to the disclosed and claimed method. We have not been directed to any persuasive evidence in the Specification as to any structure, function, or method step the word “turnkey” is intended to add.¹⁵ Thus, even if we were to read the term into the claim, it is not clear what, practically speaking, it would mean for the software applications to be “turnkey.” The quoted sentence above (*e.g., id.* at 2:61–65) has the same clear and complete meaning if the word “turnkey” is omitted. We are not persuaded that the repeated use of the word “turnkey” in the written description justifies reading this word into the claims. If the word “turnkey” was intended to be a substantive limitation of the *claimed* invention, the inventor could have added it to the claims during prosecution of the application that matured into the ’647 patent or through a reissue application prior to the ’647 patent’s expiration. Moreover, we “may not redraft claims, whether to make them operable or to sustain their validity.” *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F. 3d 1371, 1374 (Fed. Cir. 2004) (citations omitted). Thus, “we construe the claim as written, not as the patentees wish they had written it.” *Id.*

(3) *Interactive*

Patent Owner also argues:

¹⁵ The common dictionary definition of “turnkey” is “built, supplied, or installed complete and ready to operate.” Examples are “a turnkey nuclear plant” and “a turnkey computer system.” See <https://www.merriam-webster.com/dictionary/turnkey>, searched on Jan. 30, 2020.

Not all software that performs a task or function is the ‘healthcare application’ claimed in the ’647 patent. For example, the ’647 patent describes *non-interactive software* (e.g., the database software) but never suggests that it is a remotely hosted ‘healthcare application,’ as the term is used in the claims.”

PO Resp. 11–12 (citing, e.g. Ex. 1001, 10:9-13) (emphasis added).

The *claims* do *not* use the word “interactive” or any variant of this word. The written description discloses that “users at healthcare enterprises *interactively* access applications in the suite 26 to perform patient, financial, or administrative tasks.” Ex. 1001, 4:22–24 (emphasis added). As further explained in the written description, with reference to Figure 7:

The installer then authorizes users at the healthcare enterprise to use *interactively* applications in the turnkey healthcare management application suite *that are not duplicative of retained legacy applications* as shown in block 360. In such a manner users at the healthcare enterprise can *interactively* use applications hosted on the application server for performing day-to-day patient and administrative functions for the healthcare enterprise.

Id. at 13:20–27 (emphases added). Thus, the written description is using the term “interactively” merely to denote that the users use the software applications. While this written description provides more information on how to use the claimed invention than is provided in the claim itself, there is no persuasive evidence or argument why the term “interactively” should now be added to the claim language.

It is clear from the language in claim 50, for example, that the claimed method includes the steps of (1) “linking the application server and the database to a public network,” (2) “initiating secure communication between end user devices at an enterprise facility and the application server” (*id.* at 18:12–16), and (3) “generating a query to extract information from the

database” on the remote server” (*id.* at 18:21–22). Claim 1 has similar limitations. *See id.* at 14:12–23, 36–41). Thus, the claims recite a specific interactive connection between “end user devices” and the remote server for extracting data from the database on the remote server.

As stated above in our discussion of the claims, Patent Owner’s proposed construction that “healthcare application” includes the requirement that the application is “used interactively by end users” would be redundant of, or confusing and ambiguous with, the specifically recited steps in claims 1 and 50, which already recite input from, and thus interaction with, an “end user.”

c) Prosecution History

The Examiner provided a Statement of Reasons for Allowance. Ex. 1004, 183–184. These Reasons stated why the Examiner allowed application claims 27, 53, and 61. Application claims 27, 53, and 61 became patent claims 26, 50, and 1, respectively. *Id.* at 3. The Reasons for Allowance stated that “[t]he prior art taken alone or in combination failed to teach or suggest” the limitations in each of the independent claims directed to “configuring the database to accept legacy information . . . wherein the functions in the healthcare application are not duplicative of the legacy application.” *Id.* at 183–184. We do not find the Reasons for Allowance to be applicable in construing the terms “applications” or “healthcare applications.”

d) Other Evidence

Dr. Bergeron, Patent Owner’s expert, agreed with Patent Owner’s proposed construction of “healthcare application.” *See* Ex. 2005 ¶ 53. Dr. Bergeron, at his deposition, testified specifically about the meaning of the word “turnkey.” At his deposition, Dr. Bergeron was asked, “What does the

word ‘turnkey’ mean in that context [*i.e.*, the proposed claim construction]?”

Dr. Bergeron responded:

A Turnkey is a -- sort of a plug and play or a off-the-shelf or trying to distinguish from software that must be customized and heavily worked on in order to work. You purchase it and it works.”

Ex. 1036, 142:7–12. The next question, and the answer, were:

Q Okay. So if it’s turnkey, that means that customization is not required?

A Or minimal customization, just plug and play. You buy it and it works. The expectation that it works. There may be some minor tweaking, but that’s it.

Id. at 142:13–18. Thus, based on Dr. Bergeron’s testimony, “turnkey” software is simply software that “works.” *Id.* at 142:12 (“You purchase it and it works.”). And, it works even if there is “minimal customization” or “minor tweaking” required. *Id.* at 142:15–18.

This proposed construction thus adds no specificity to the structure, function, or method or operation of what is, or is not, a “healthcare application.” What “works” for one health care enterprise, such as a neighborhood clinic or a small physician group (Ex. 1001, 1:29–37) likely is very different from what “works” for a large group of hospitals encompassing hundreds of doctors and many point of care facilities (*id.*). What “works” for one neighborhood clinic may not meet the needs of a different neighborhood clinic. A “minimal customization” for a national hospital chain, may be a major project for a neighborhood clinic. Thus, the proposed construction of “healthcare application” by adding the amorphous term “turnkey,” provides no clear substantive limitation of the claims. As claimed, a person of ordinary skill would understand that the “healthcare application,” or software for performing some specific task or function, is

software that will “work” for the specified task or function, whatever that may be. *See* Tr. 61:2–7 (“What it includes is an ability to provide the services to the customer for its intended purpose. That’s really what ‘turnkey software’ means.”).

*e) Conclusion for the Terms
“Application” and “Healthcare Application”*

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

Renishaw PLC v. Marposs Societa’ per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998) (citations omitted). Moreover, in construing the Challenged Claims, we give the claims their ordinary and customary meaning, which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1312–13.

We conclude that a person of ordinary skill, with the level of education and experience stated above in Section III.C of this Decision, would understand from the claims and Specification, as discussed above, that a “healthcare application” is an application that would work for its intended purpose within the context of the claimed invention, and thus, there is no basis in fact or law for adding the word “turnkey” to the claims.

We also determine that neither the evidence nor the applicable law establish a basis for adding the word “interactively” to the claims, for the reasons discussed above.

Based on the evidence and analysis above, we determine that the ordinary and customary meaning the terms “application” and “healthcare

application.” would have had to a person of ordinary skill in the art in question at the time of the invention is:

for the word “application,” “software for performing some specific task(s) or function(s);” and,

for the phrase “healthcare application,” “software for performing some specific task(s) or function(s), and used by a healthcare enterprise.

These constructions stay true to the claim language and most naturally aligns with the patent’s description of the invention.

2. “*Remotely Hosting*” (Claim 1);
“*Hosting Remotely*” (Claim 50)

Patent Owner asserts that the terms “remotely hosting” (claim 1) and “hosting remotely” (claim 50) should be construed to mean “hosting at a location that is *not part of* the enterprise.” PO Resp. 13 (citing Ex. 2005 ¶¶ 60–63) (emphasis added). Dr. Bergeron’s testimony repeats Patent Owner’s assertion. It is unclear from the phrase Patent Owner proposes to add to the claims whether the added phrase means that the location is *not physically part of* the enterprise, that the location is *not legally part of* the enterprise, or is not some other relationship between the location of the server and the enterprise. Patent Owner further argues that the claim language “confirms” that “the application server is *not at* the enterprise.” *Id.* (citing Ex. 2005 ¶62). Here, Patent Owner’s use of the phrase “not at” rather than the phrase “not part of” suggests that Patent Owner is arguing simply for a different physical location.

Patent Owner also argues that “[t]he invention of the ’647 patent allows different enterprises to access a single, turn-key application *hosted by a third-party*, which does not require investment from the enterprises.” Sur-reply 6 (citing Ex. 1001, 4:20–24) (emphasis added). We find no support in

the cited excerpt in the '647 patent, or elsewhere in the '647 patent, that the *claimed* invention requires a “third party” to host the healthcare applications. We note that the phrase “third party” does *not* appear in the Specification of the '647 patent.

Petitioner states that “hosting remotely” in claim 50 should have its “plain and ordinary meaning.” Reply 22–23. Petitioner argues:

an application is ‘remotely host[ed]’ if it is running on a server accessed by clients through a network. It has nothing to do with who owns the premises where the server is located.

Reply 26.

To construe these terms, we again look at the claims, Specification, prosecution history, and other relevant evidence. *Cont’l Circuits*, 915 F.3d at 796 (citing *Phillips*, 415 F.3d. at 1314).

a) The Claims

Concerning the two phrases at issue, claim 1, which includes first and second end users, states,

establishing a first secure communication channel via a public network between an application server and a first end user device in the first enterprise facility and establishing a second secure communication channel via the public network between the application server and a second end user device in the second enterprise facility, the application server remotely hosting a healthcare application and having a database

Ex. 1001, 14:12–19.

The only relationship recited in claim 1 between the “remote” application server and the end users is that each end user is connected to the application server by a “public network.” *Id.*

Also, claim 1 recites that the healthcare application “database” is *configured* “to accept legacy information” from a “legacy application” that

is “operating at each of the first and second healthcare enterprise facilities.”
Ex. 1001, 14:31–33. Thus, with two end users, each may have a legacy application operating at the enterprise.

Claim 50, which only includes a single end user, states,
hosting remotely on an application server a healthcare application configured to store application information in a database

Id. at 18:9–11. Additional limitations in claim 50 recite how the end user communicates with the remote server, which is using a “public network.”

E.g., see id. at 18:11–15. Claim 50, like claim 1, also states that the healthcare application database is configured “to accept legacy information derived from a legacy application operating at the enterprise facility.”

Id. at 16–18.

Thus, neither claims 1 nor 50 require a legacy application. They require only that the remote healthcare application server is *configured* to accept legacy *information*, such as data, from a legacy application operating at an enterprise.

b) The Specification

In describing a preferred embodiment, the written description states that application server 24,

operates at a single location remote from the healthcare enterprise. Via the Internet, users at healthcare enterprises interactively access applications in the suite 26 to perform patient, financial, or administrative tasks.

Since the enterprise is using the Internet to access the remotely hosted applications, the healthcare enterprise needs only computing resources sufficient to allow secure, quality access to the Internet.

Ex. 1001, 4:20–28. Connection over the Internet, however, is *not* the only option disclosed for connecting an end user with the remote application server. The written description also discloses another option for remote hosting, which is locating the remote server “proximate” to the healthcare enterprise and directly coupling the remote server to the enterprise’s existing private network or intranet network. As stated in the written description,

the healthcare management system may use other public or private networks for establishing such communications [between the server and the end user]. For example, the application server could be located *proximate* a health care enterprise and *directly couple to the enterprise’s existing private network*. Indeed, the application server could become a server on an enterprise’s *intranet* network. *In such a manner the application server remotely hosts the suite of health care applications*, integrates with existing legacy applications, and generates multidiscipline enterprise performance reports. Similar to the implementation using the Internet, the enterprise can quickly and cost effectively utilize the enterprise healthcare management system.

Id. at 13:36–48 (emphases added). Thus, the application server can be “remote” even though it is proximate to the health care enterprise, and directly coupled to the enterprise’s private network. Thus, based on the written description, the word “remotely” itself does *not* mean hosting at a location that is “not part of the enterprise,” as proposed by Patent Owner. PO Resp. 13–14. Indeed, the “remote” server can be a part of the enterprise’s existing private network.

Patent Owner asserts that its proposed construction is supported by the Specification because of the speed and cost-effectiveness of upgrades and “minimal network capability.” *Id.* at 14–15. Patent Owner ignores, however, the clear disclosure, quoted above, that a server proximate to the health care enterprise, and directly coupled to the enterprise’s private

network, is “remotely host[ing], is “[s]imilar to the implementation using the Internet,” and also provides that “the enterprise can quickly and cost effectively utilize the enterprise healthcare management system.”

Ex. 1001:13:42–48.

c) Other Evidence

Dr. Sujansky testified at his deposition about the meaning of the word “remote.” The following colloquy occurred:

Q What do you understand the term “remote” to mean?

A It can mean any number of things. It can mean very far away from. It can mean outside of.

...

Q Okay. So your understanding of the term “remote,” as used in the ’647 patent, requires that the healthcare application be remote to the enterprise facility?

A It would be outside of the enterprise facility.

We consider all the evidence in reaching the correct claim interpretation. We note, however, that “[t]he specification is the ‘single best guide to the meaning of a disputed term.’” *Trustees of Columbia Univ.*, 811 F.3d at 1362 (Fed. Cir. 2016) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir.1996). “Usually, [the specification] is dispositive.” *Phillips*, 415 F.3d at 1315 (quoting *Vitronics*, 90 F.3d at 1582).

Other than the evidence discussed above, we have not been directed to any persuasive evidence in the prosecution history or elsewhere that informs our decision on construction of the terms “remotely hosting” (claim 1) and “hosting remotely” (claim 50).

*d) Conclusion for the Terms
“Remotely Hosting” and “Hosting Remotely”*

Based on the totality of the evidence and the analysis above, we determine that the ordinary and customary meaning of the terms “remotely hosting” (claim 1) and “hosting remotely” (claim 50) is that the application server containing a healthcare application and the enterprise are connected by a network. To be clear, a server can be “remote” and still be proximate to, and directly coupled to, an enterprise’s private or intranet network. We find that this construction stays true to the claim language and most naturally aligns with the patent’s description of the invention.

3. Other Disputed Claim Terms

We determine that a specific construction of the other claim terms proposed by the parties is not necessary to the resolution of this dispute. *See Nidec Motor*, 868 F.3d at 1017 (“we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’”).

*E. Ground 1
Patentability of Claims 50–52
Based on Evans*

1. Scope and Content of Evans (Ex. 1002)

Petitioner begins with claim 50 in its Ground 1, likely because claim 50, which recites a single end user is broader than claim 1.

We make the following findings concerning the disclosure of Evans.

Evans is a PCT patent application that was published April 2, 1998. This is more than one year before the June 30, 1999, priority date of the challenged claims. Thus Evans is available as a reference under 35 U.S.C. § 102(a) and (b).

Evans concerns management of electronic medical records. Ex. 1002, 1–2. The basic objective of the EMR system disclosed in Evans is

to consolidate into a single computerized patient database all patient data obtained from various point of care sources. *Id.*, Abstract. The point of care data input sources are connected to a computer network that maintains the data in a database accessible to all authorized users. *Id.* Authorized healthcare providers in any geographic location (*id.* at 15:7–9) can access, analyze, update and electronically annotate patient data in the database to analyze the patient data (*id.*, Abstract). The EMR system also includes the capability to incorporate legacy data for a patient. *Id.*

In general, the EMR system disclosed in Evans automates and simplifies patient chart creation, maintenance and retrieval. *Id.* at 2:11–12. The disclosed system “creates and maintains all patient data electronically and thus can eliminate or supplement creating and maintaining of physical data records.” *Id.* at 2:13–14; 14:27–28 (“the present invention creates and maintains all patient data electronically”). The Evans system also “provides instant access to a patient’s electronic medical record by authorized healthcare providers from any geographical location.” *Id.* at 15:7–9.

The Evans EMR system also can incorporate a patient’s legacy data, such as a paper chart, into the patient record as well as legacy data from mainframe computers. *Id.* at 2:21–22. Figure 1 from Evans, reproduced below, illustrates the basic system architecture of Evans.

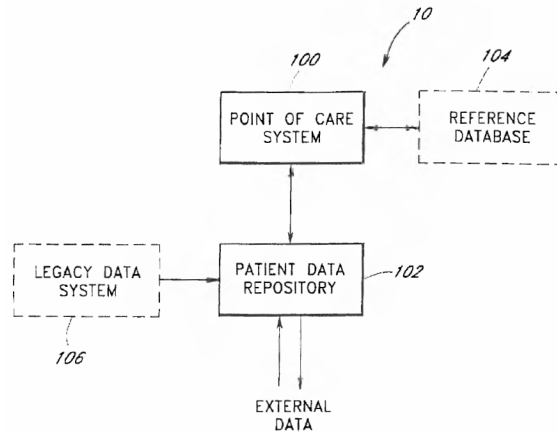


FIG. 1

Fig. 1 from Evans is a block diagram of system architecture. Ex. 1002, 3:25–26.

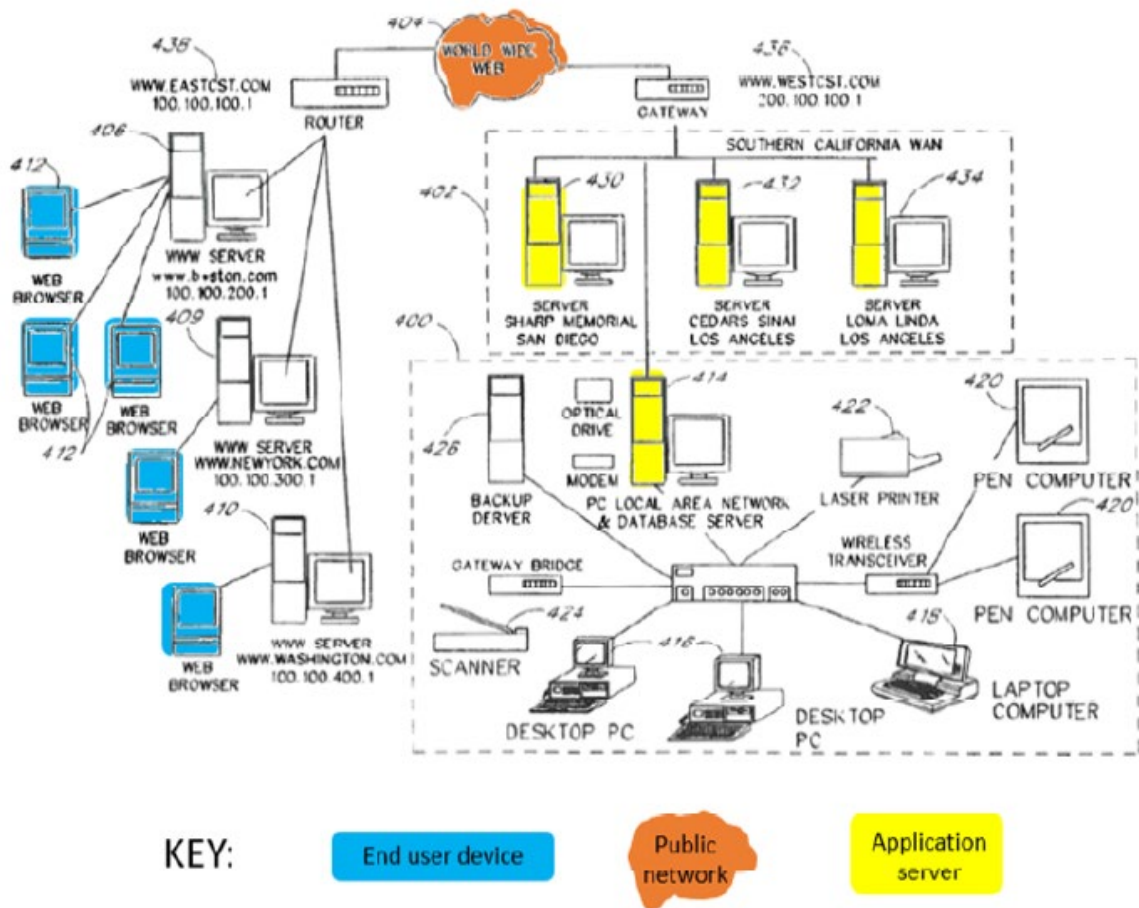
Referring to Figure 1, Healthcare providers, such as physicians, at hospitals, laboratories and clinics, generally capture and access basic patient data at point of care system 100. Point of care system 100 transfers the data to patient data repository 102. *Id.* at 5:4–6. Thus, the patient data is maintained at a location separate and distinct from the doctor’s office, clinic, or other healthcare facility where patient care is provided. Patient data repository 102 also communicates with external sources to *obtain* additional patient data, such as laboratory test results and x-ray images, and to *transfer* patient information to other healthcare providers. *Id.* at 5:7–9. Point of care system 100 includes “modules” for patient data capture, clinical data capture, progress notes, and “encounter data capture.” *Id.* at 6:10–12; Fig. 4.

As shown in Figure 1, patient data repository 102 may also communicate with legacy data system 106 to access patient data in paper files and mainframe electronic databases. *Id.* at 5:18–20.

The simple system architecture shown in Figure 1 is implemented as shown in Figure 24, which is an example of a typical configuration for the

electronic medical records system disclosed in Evans. *Id.* 4:28–29.

Petitioner provides the following annotated Figure 24 (Reply 28).



(Ex.1002, Fig. 24 (annotated); see Ex.1027 ¶163)

The system shown in Figure 24 is for a nation-wide collection of healthcare facilities. It includes wide area network (WAN) 402 with application servers (shown in yellow), a representation of the Internet (World Wide Web), shown at 404, and “remote web servers 406, 408¹⁶,

¹⁶ The text of Evans refers to “remote servers 406, 408, 410 communicating with web browsers 412.” Ex. 1002, 13:2–4. Figure 24, however, labels the remote servers with reference numerals “406,” “409,” and “410.” See *id.* at Fig. 24. This appears to be an error in Fig. 24, because the reference numeral 409 is *not* used in the text of Evans.

410,” which communicate with end user terminals, or web browsers 412 (shown in blue). Ex. 1002, 13:2–4. Wide-area network 402 includes a plurality of local area network (LAN”) servers (shown in yellow). *Id.* at 13:4–5. The LAN servers support local and remotely located healthcare providers. *Id.* As shown in Petitioner’s annotated Figure 24, the web browsers, used by the end users, shown in blue, communicate over the Internet with remote application servers, shown in yellow.

In the Figure 24 configuration, WAN 402 comprises a plurality of local area network (LAN) servers, shown at reference numerals 414, 426, 430, 432, and 434, supporting local and remotely located healthcare providers. Ex. 1002, 13:4–7, 10–11. Evans discloses that that the disclosed system “can support a large healthcare enterprise distributed across a large geography as well as a single physician office.” *Id.* at 15:17–19.

Using the system shown in Figure 24, a healthcare provider located in Boston, Massachusetts (*see* server 406) “may access a patient record resident on the Scripps Health server 414, located in San Diego, California” using a web browser 412. *Id.* at 13:20–23.

The emphasis in Evans is managing and sharing “data.” Underlying the management of data on Evans computer systems is software running the operating systems (*id.* at 13:24–35) and applications (*id.* at 14:3–22). Evans recites that the healthcare application is hosted remotely from the healthcare enterprise, and that the database is configured to accept legacy information. The reason the Examiner allowed the claims was because the prior art did not disclose or suggest the limitations in each of the independent claims directed to “configuring the database to accept legacy information . . . wherein the functions in the healthcare application are not duplicative of the legacy application.” Ex. 1004, 183–184.

2. *Analysis*

In this analysis we focus on the differences between the prior art and the claims at issue, claims 50–52. Relying on the level of ordinary skill discussed in Section III.C, we then determine patentability of the challenged claims. *KSR*, 550 U.S. at 406.

a) *Claim 50*

Petitioner provides a clause-by-clause analysis of independent claim 50, asserting where each clause is either disclosed in Evans or would have been obvious based on the Evans disclosure. Pet. 26–40. Throughout its analysis, Petitioner cites to the testimony of Dr. Sujansky for evidentiary support. We address below each clause of claim 50.

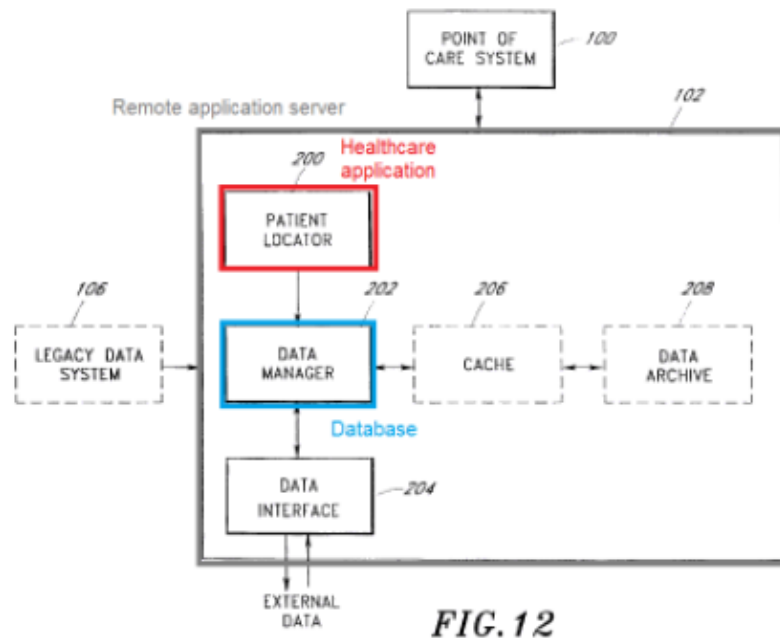
(1) *“A method of operating a healthcare management system”*

Evans concerns management of electronic medical records (“EMR”). Ex. 1002, 1–2. In general, the EMR system disclosed in Evans automates and simplifies patient chart creation, maintenance and retrieval. *Id.* at 2:11–12. The disclosed system “creates and maintains all patient data electronically and thus can eliminate or supplement creating and maintaining of physical data records.” *Id.* at 2:13–14. Evans clearly discloses a method of operating a healthcare management system.

(2) *“hosting remotely on an application server a healthcare application configured to store application information in a database”*

We refer to this clause as the “hosting remotely” clause.

Details of the structure and function of patient data repository 102 from Figure 1 of Evans are shown in Figure 12 of Evans and described in the related text. Petitioner provides (Pet. 28) an annotated Figure 12 from Evans, which is reproduced below.



(Ex. 1002, Fig. 12 (annotated).)

As shown in Petitioner’s annotated Figure 12, it is Petitioner’s position that patient data repository 102 is a “remote application server,” as recited in claim 50. Pet. 27 (“Evans teaches the ‘hosting’ step of claim 50, disclosing a remotely-hosted ‘patient data repository 102’”). This would correspond to a server shown in Yellow on Petitioner’s annotated Figure 24, reproduced above (*see also* Reply 28).

Regarding this “hosting remotely” clause, Patent Owner asserts that:

Petitioner, however, cannot meet its burden to show limitation 50b [the “hosting remotely” clause] is satisfied for at least three reasons. **First**, the patient locator is not a “healthcare application.” **Second**, the patient locator is not configured to store the claimed “application information” in a database. **Third**, even if the patient locator is deemed to be a “healthcare application” that stores “application information,” it is not hosted “remotely.”

PO Resp. 24 (citing Ex. 2005 ¶¶ 104–136).

We consider below each of Patent Owner’s arguments and the various elements in the “hosting remotely” clause in claim 50. We begin, as does this clause, with the phrase “hosting remotely,”

(a) Hosting Remotely

In Section III.D.2 of this Decision we construed the phrase “hosting remotely” in claim 50 to mean “that the application server containing a healthcare application and the enterprise are connected by a network.” We did not accept Patent Owner’s proposed construction that this phrase should mean “hosting at a location that is not part of the enterprise.”

Petitioner asserts that “the ‘patient locator’ application is ‘host[ed] remotely on an application server.’” Pet. 29–30 (citing Ex. 1002, 13:1–7, 18–23; 15:7–9; 17:1–16, 24–25, Fig. 24; Ex. 1027 ¶¶ 162–164); Reply 26–28. Petitioner also asserts that Evans further teaches that remotely located healthcare providers can access these servers from any geographical location via the Internet. Pet. 30 (citations omitted); Reply 27–28. Petitioner again points to Figure 24 in Evans to support its argument that Evans discloses that “healthcare providers access patient records on a server in California through the Internet from web browsers in Boston, New York, and Washington.” See Pet. 30; Reply 28 (relying on annotated Figure 24).

Patent Owner argues that “Petitioner cannot show that the patient locator is hosted ‘remotely’ because it is implemented by and operates at the enterprise facility.” PO Resp. 29 (citing Ex. 2005 ¶¶ 116-120). We disagree.

Based on our claim construction of the phrase “hosting remotely,” it is clear that Evans discloses that the application servers 414, 430, 432, and 434 containing a healthcare application support “local *and remotely located* healthcare providers.” Ex. 1002, 13:5 (emphasis added); Fig. 24. It is also

clear from Evans that “remote” end user devices 412 communicate over the Internet with the application servers. *Id.* at 13:2–23; Fig. 24.

(b) Healthcare Application

It is Petitioner’s position that patient locator 200 within remote server 102 is a “healthcare application,” as recited in claim 50. Petitioner asserts that Evans uses the “patient locator” as an enterprise master patient index (EMPI) application because it helps consolidate patient data from different sources by generating a unique patient identifier (PID) for each patient and linking each piece of patient data with a PID. Pet. 28–30 (citing Ex. 1002, 8:14–36, Figs. 12-13; Ex. 1027 ¶¶ 49, 158–161).

In its Response, Patent Owner disputes that patient locator 200 in Evans is a “healthcare application,” as recited in claim 50. PO Resp. 24–26. Patent Owner bases its argument on its proposed claim construction for the phrase “healthcare application,” which was a “turnkey healthcare software that is used interactively by end users.” *Id.* At the hearing, however, Patent Owner took a somewhat different position. Tr. 56:25–57:2 (“So I am not saying that Evans is not a health care application because it is – it relates to electronic medical records.”). In addressing the argument in its Response, we note that, as discussed in Section III.D.1 of this Decision, we have not accepted Patent Owner’s proposed construction as the correct construction. As stated in Section III.D.1, we determined that the proper construction of the phrase “healthcare application” is “software for performing some specific healthcare task(s) or healthcare function(s), and used by a healthcare

enterprise.” A “healthcare application” need not be “turnkey” or “interactive.”¹⁷

Petitioner asserts that Evans uses the “patient locator” as an enterprise master patient index (EMPI) application because it helps consolidate patient data from different sources by generating a unique patient identifier (PID) for each patient and linking each piece of patient data with a PID. Pet. 28–30 (citing Ex. 1002, 8:14–36, Figs. 12-13; Ex. 1027 ¶¶ 49, 158–161). Dr. Sujansky, Petitioner’s Declarant, testifies that:

One tool developed by the industry to help with the incorporation of legacy applications and systems in healthcare settings was an “enterprise master patient index” (EMPI), which helps to consolidate data from multiple locations and facilities within an enterprise by linking each piece of data received from a user or other data source with the specific patient to whom it pertains. It does this by establishing a common scheme for patient identification among the systems and applications within an enterprise. . . . Accordingly, the EMPI, in establishing these unique identifiers for all patients, becomes the ‘name authority’ for the entire enterprise.

Ex. 1027 ¶ 49 (citing Ex. 1010, 389; Ex. 1018, 29). Dr. Sujansky also testifies that “[f]rom Evans’s description, a person of ordinary skill in the art in 1999 would have recognized that the ‘patient locator’ performs the function of an enterprise master patient index (EMPI).” *Id.* ¶ 159.

Patent Owner argues that Evans patient locator is not an EMPI, and even if it is, “the ’647 patent teaches that an EMPI cannot be the claimed ‘healthcare application.’” PO Resp. 26–27. Dr. Bergeron, Patent Owner’s Declarant, disagrees with Dr. Sujansky on this issue. Dr. Bergeron testifies

¹⁷ We note, however, that Evans clearly is “interactive” because the end users interact with the application server to create, maintain, retrieve, and analyze patient data. *See, e.g.*, Ex. 1002, 2:11–33.

that “a POSITA would understand that the EMPI is not the claimed healthcare application.” Ex. 2005 ¶ 59.

The ’647 patent does not specifically define an EMPI. The ’647 patent discloses that:

The application software suite 26 also includes an Enterprise Master Patient Index (EMPI) for managing access to the application server 24. The EMPI has authorization and security information for establishing access rights for users. Further, the EMPI has basic patient information for assuring that information entered into any application is related to a valid patient.

Evans discloses that patient data repository 102 includes patient locator 200, a data manager 202 and a data interface 204. *Id.* at 8:15, Fig. 12. Patient locator 200 generates a unique patient identifier (PID) for each patient. Ex. 1002, 8:16. The PID is associated with a “patient data structure” 210. *See id.* at Fig. 13. Essentially, patient data structure 210 associated with the PID “includes pointers to” (Ex. 1002, 8:22) all data and information in patient record 220. *Id.* at 9:13. The relationship among all these similarly identified components is that patient record 220 (*see id.* at Fig. 14) includes the PID (*see id.* at Fig. 13) generated by the patient locator 200 (*see id.* at Fig. 12) in patient data repository 102 (*see id.* at Fig. 1).

The information in the patient locator, which includes the PID and patient record 220, thus includes, for example, x-ray images from an external source (*id.* at 8:21–23), and all data records related to a patient, such as clinical data 211, medication data 215, and legacy data 219. *See, e.g., id.* at Fig. 13.

To manage all this data, Evans also includes relational databases in the EMR system that allows client applications running under Microsoft

Windows to access data from a variety of data sources, including relational and non-relational database management systems (DBMS). *Id.* at 14:13–16. Evans discloses specifically that “[t]hese data sources may reside on a client machine or they *may be located on a remote server.*” *Id.* at 14:16–17 (emphasis added).

Based on the analysis above, we find that Evans clearly discloses that patient locator 200 contains, or points to, basic patient information, as well as detailed patient information. Evans also uses the patient locator to control access to this information. Accordingly, Evans discloses what the ’647 patent and Dr. Sujansky refer to as an EMPI.

Patent Owner disputes whether the EMPI is a “healthcare application.” PO Resp. 12–13 (citing Ex. 2005 ¶¶ 57, 58). The written description of the ’647 patent clearly and unambiguously answers the question of whether the EMPI is part of application suite 26. It is. The written description states “application software suite 26 also *includes* an Enterprise Master Patient Index (EMPI) for managing access to the application server 24.” *Id.* at 6:41–43 (emphasis added). Notwithstanding this statement in the Specification, Dr. Bergeron testifies that “[i]ncluding an EMPI in the application software suite does not mean that the EMPI is the claimed healthcare application.” Ex. 2005 ¶ 58. Dr. Bergeron’s rationale for this conclusion is that “[t]here is no disclosure in the patent that would teach that the EMPI can be the claimed healthcare application.” *Id.* (citing Figs. 2–7). We disagree.

Figure 1 of the ’647 patent shows suite 26 of software applications maintained on server 24. The “EMPI” is shown included, identically, and with equal status as other applications, such as laboratory software 31 (shown as “LAB” in Figure 1), radiology software 33 (shown as “RAD”),

pharmacy software 35 (shown as “PHAR”), and financial software 37 (shown as “FIN”). This equality is illustrated in Petitioner’s annotated, excerpted Figure 1 (Reply 25), which is reproduced below.

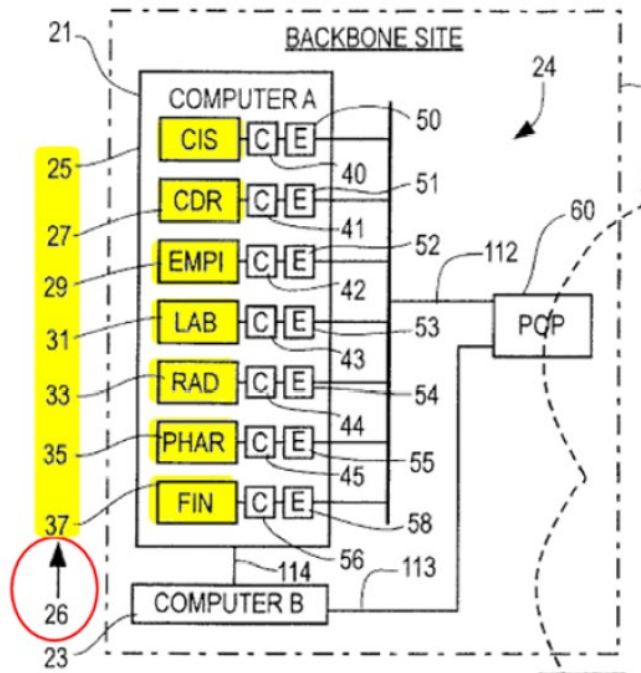


Fig. 1 of the '647 patent,
excerpted and annotated by Petitioner. Reply 25.

Each of these software programs, or applications, has a unique and specific purpose. The laboratory application works differently than the financial application or the EMPI application. Nonetheless, each is an “application” as disclosed in the '647 patent.

Dr. Bergeron also testifies that the EMPI is not an application because it is not specifically *claimed* as an application. *See* Ex. 2005 ¶ 58 (stating that claims 10–13 and 33–36 recite a specific healthcare application, but no claim specifically recites an EMPI as an application). We disagree with Dr. Bergeron’s premise and his conclusion.

Claims 10–13 and claims 33–36 recite, respectively, that the claimed “healthcare application” is a “financial application,” a “clinical information management application,” an “outcome application” or a “word processing application.” *See* Ex. 1001, 14:66–15:7; 16:46–57. The fact that an EMPI is *not* specifically *claimed* as a “healthcare application” does not preclude it from being *disclosed* as a “healthcare application.”

We note that the *claims* do *not* recite specifically a laboratory application, a radiology application, or a pharmacy application. The written description discloses that “application suites [sic] 26 *may also include* laboratory software 31.” *Id.* at 6:14–15 (emphasis added). Additionally, the written description states that, “in a similar manner,” application suite 26 may include radiology software 33 and pharmacy software 35. *Id.* at 6:17–21. The “may also include” description of these healthcare applications in application suite 26 is similar to the description that “application suite 26 *also includes* an Enterprise Master Patient Index (EMPI) for managing access to the application server.” *Id.* at 6:41–43 (emphasis added).

Following Dr. Bergeron’s logic would suggest that the disclosed laboratory software 31, radiology software 33, and pharmacy software 35 are not “healthcare applications” because they are not specifically *claimed* as applications. There is no factual or legal support for this premise or conclusion. The written description and the supporting figures are consistent in stating what software may be included in the suite of claimed “healthcare applications.” It is clear from the Specification that these *unclaimed*, but *disclosed* applications are “healthcare applications. It also is clear from the Specification that application suite 26 “includes” an EMPI.

Claims 11 and 34 each state that the claimed “healthcare application” is a “clinical information management application.” The phrase “clinical

information management application” does *not* appear in the written description.¹⁸ The written description discloses instead a “clinical information system.” *E.g.*, Ex. 1001, 6:9–11 (“This suite of software applications 26 *includes* a clinical information system 25 for providing day-to-day patient management functions.” (emphasis added)). This suggests that a “healthcare application,” as claimed, may include any system for providing day-to-day patient management functions. Evans’ patient locator 102, whether labeled an EMPI or not, clearly provides day-to-day management functions.

Based on our analysis of Evans and the evidence before us, we determine that patient locator 200 in Evans, which Petitioner asserts functions as an EMPI (Pet. 28–30), discloses software for performing some specific healthcare task(s) or healthcare function(s), and used by a healthcare enterprise. Thus, patient locator 200 in Evans discloses a “healthcare application,” as recited in claim 50.

*(c) “Configured to Store
Application Information in a Database.”*

The “hosting remotely” clause also requires that the healthcare application is “configured to store application information in a database.” Ex. 1001, 18:10–11. Patent Owner asserts that patient locator 200 in Evans

¹⁸ See *Retractable Techns., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011) (“In reviewing the intrinsic record to construe the claims, we strive to capture the scope of the actual invention, rather than strictly limit the scope of claims to disclosed embodiments or allow the claim language to become divorced from what the specification conveys is the invention.”). This focus on the Specification helps to avoid what has been called “the curse of . . . claims divorced from the written description.” *Retractable Techns.*, 653 F.3d at 1311 (Plager, Circuit Judge, concurring).

does not store the claimed “application information” in a database. PO Resp. 27 (citing Ex. 2005 ¶¶ 111–115).

The ’647 patent discloses that the information collected from the enterprise for all applications may be stored in a searchable database. Ex. 1001, 4:33–38. In this way, a healthcare enterprise can monitor performance by generating reports comprising patient care, financial, and administrative information. *Id.*

As shown in Petitioner’s annotated Figure 12 from Evans (Pet. 28), and as disclosed in the text of Evans describing Figure 12, “patient data repository” 102 in Evans includes a patient locator 200, a data manager 202 and a data interface 204. Ex. 1002, 8:15. Evans also discloses that “patient locator 200 *creates a patient data structure* 210 having the PID and the patient’s name. In a preferred embodiment, the patient data structure 210 includes pointers to data structures having data within a patient record captured by the point of care system.” *Id.* at 8:20–22. Additionally, “patient data structure 210 may include pointers to data structures having data . . . transferred by the legacy data system 106.” *Id.* at 8:28–29. Data manager 202 uses the PID, which is created by patient locator 200, to store and retrieve patient records. *Id.* at 9:8–9.

Dr. Sujansky testifies that:

Evans describes an EMR system that consolidates data from multiple locations and facilities. The ‘patient locator 200,’ enables this consolidation by linking each piece of data received from a user or other data source with the specific patient to whom it pertain. The linking is done via the creation and use of a ‘unique patient identifier (PID).’

Ex. 1027 ¶ 159. Dr. Sujansky also testifies that “Evans teaches storing the ‘PID’ generated by the ‘patient locator 200’ as part of the patient record in

the ‘data manager 202,’ which is also part of the ‘patient data repository 102.’” *Id.* at ¶ 161. Based on this disclosure in Evans, Dr. Sujansky concludes that “Evans discloses that the ‘patient locator 200’ is ‘configured to store application information in a database,’” as recited in the “remotely hosting” clause of claim 50. *Id.*

Based on the evidence and analysis above, we also determine that Evans discloses all the limitations in the “hosting remotely” clause of claim 50.

*(3) “linking the application server
and the database to a public network”*

Petitioner asserts that, as shown in Petitioner’s annotated Figure 24 from Evans (*see* Reply 28), Evans discloses that the application servers (shown in yellow in annotated Figure 24) “are linked via a ‘Gateway’ to the ‘World Wide Web,’ which is a ‘portion of the Internet’—a ‘public network.’” Pet. 31 (citing, *e.g.*, Ex. 1002 at 13:3-5, Fig. 24).

Patent Owner does not dispute that Evans discloses this “linking” step.

We have reviewed Petitioner’s contentions and agree with Petitioner that Evans teaches or suggests this limitation for the reasons set forth in the Petition.

*(4) “initiating secure communication between end user devices
at an enterprise facility and the application server”*

Petitioner asserts that Evans “discloses or renders obvious” that the communications between the end user devices 412 and the application servers are secure. Pet. 31. Petitioner also asserts that Evans ensures patient confidentiality using “several levels of security for access to patient data.” *Id.* at 31–32 (citing Ex. 1002, 15:19–21; Ex. 1027 ¶ 172.). Petitioner argues

that a “POSITA [person of ordinary skill in the art] would understand access restrictions to be one ‘level’ of security, and that other ‘levels’ of security would include data encryption. *Id.* at 32 (citing Ex. 1027 ¶¶ 172–174, 184). Petitioner concludes “it would have been obvious to encrypt the communications of Evans, thereby making them ‘secure’” based on National Research Council recommendations that all organizations that handle patient-identifiable health care information encrypt the information before transmitting it outside the organization’s boundary over public networks such as the Internet. Pet. 32 (citing Ex. 1027 ¶ 177).

Patent Owner does not dispute that Evans discloses this “secure communication” step.

We have reviewed Petitioner’s contentions and agree with Petitioner that Evans teaches or suggests this limitation for the reasons set forth in the Petition.

(5) “configuring the database to accept legacy information derived from a legacy application operating at the enterprise facility, wherein the functions in the healthcare application are not duplicative of the legacy application”

We refer to this as the “legacy clause.” The principal dispute between the parties here is whether Evans discloses a healthcare application that is not duplicative of the legacy application.

Petitioner relies on its annotated Figure 12 from Evans (*see* Pet. 34), which is reproduced below.

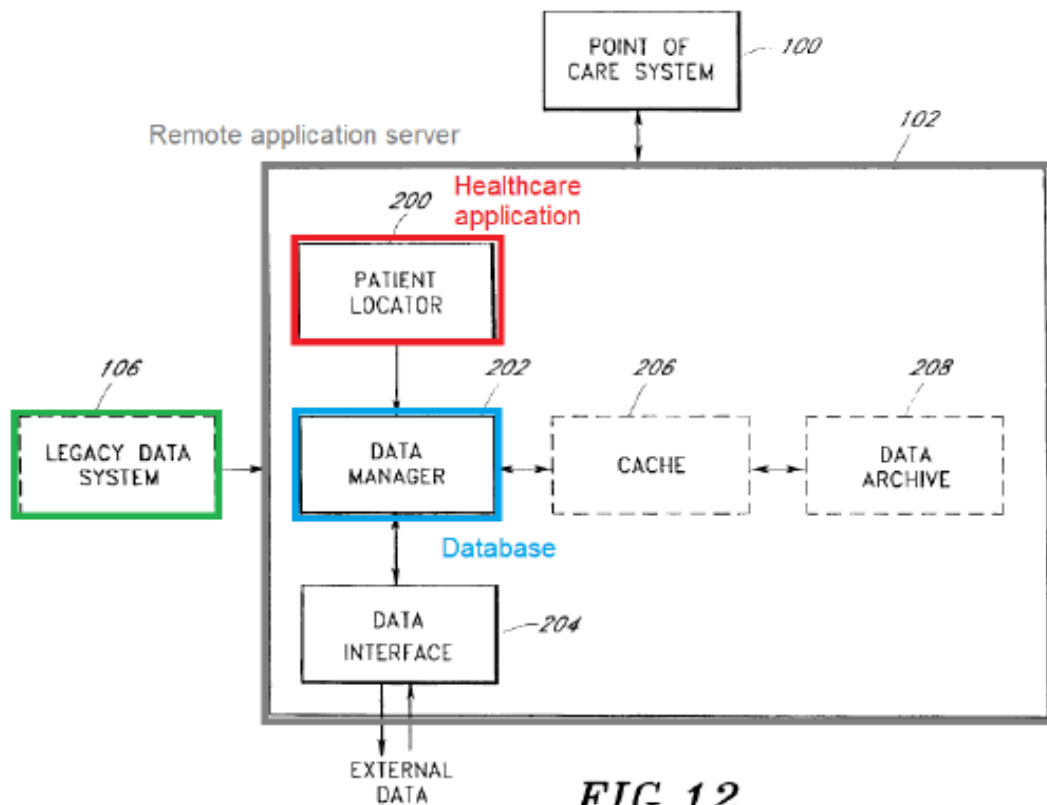


FIG. 12

Figure 12 from Evans, annotated by Petitioner. Pet. 34.

We have determined above that patient locator 200 is an EMPI that generates a unique patient ID. All data records related to that person are associated with that unique patient ID. *See* Ex. 1002, Figs. 12, 13, 14. This is what ties every medical record to a specific patient. We also determined above that the EMPI is a healthcare application.

As recited in the legacy clause of claim 50, the claimed database must accept legacy information, and “functions in the healthcare application are not duplicative of the legacy application.” We know that Evan’s healthcare application (locator 200) generates a unique ID. Ex. 1002, 8:15–17 (“The patient locator 200 generates a unique patient identifier (PID) 221 (Figure 14) for each patient and creates and maintains a table having PIDs for all patients who have data in the patient data repository 102.”). There is no

evidence that the legacy application is also providing a unique ID to tie together all of this data. Indeed, as we discuss in detail below, substantial evidence establishes the contrary.

As disclosed in Evans, the function of legacy data system 106 is “to access pertinent patient data in paper files and mainframe electronic databases” and then to communicate that legacy data with patient data repository 102, which is where the EMPI, the healthcare application, has been created. *See*, Ex. 1002, 5:18–20, 12:25–34. As described in Evans, the basic function of legacy data system 106 is simply to transform legacy data into an electronic format compatible with a patient record. *Id.* at 12:25–30. Evans discloses:

Referring now to Figure 23, a block diagram illustrates the structure of the optional legacy data system 106 as shown in Figure 1. The legacy data system 106 includes a data source 370 and a converter 372. The data source 370 comprises physical data 374, such as paper based records and photographs, and electronic mainframe data 376. The converter 372 receives information from the data source 370 and transforms the information into an electronic format compatible with the EMR system. For example, to input physical data 374, such as paper or image based data, *into a patient record*, the converter 372 comprises a scanner to digitize the physical data into a binary file format for incorporation *into the patient's record*. To input electronic mainframe data 376, the converter 372 employs the same mechanism used for transfer or receipt of patient data from external sources. As described before, the converter 372 determines if an interface exists for the mainframe data, selects the appropriate data handler and converts the data into the proper format for incorporation into a patient record.

Id. at 12:25–34 (emphasis added). Thus, the patient record, with a unique EMPI, already exists. As explained in Evans, the software, or application, in legacy data system 106 digitizes the physical data into a binary file format

for incorporation into the patient’s record. Ex. 1002, 12:29–31. To input electronic mainframe data 376, the converter 372 employs the same mechanism used for transfer or receipt of patient data from external sources. *Id.* at 12:31–32.

Petitioner asserts Evans discloses or renders obvious the “configuring” step, or legacy clause. Pet. 33–39 (citing Ex. 1027 ¶¶ 186–203). It is Petitioner’s position that Evans discloses that the “data manager” (the database) is configured to accept a patient record that includes “a patient’s legacy data,” such as “legacy data from mainframe computers.” *Id.* at 33 (citing Ex. 1002, 2:21–22, 12:25–34, Fig. 1; Ex. 1027 ¶ 187). According to Petitioner, “Figure 12 [] in Evans shows the relationship between ‘patient data repository 102’ (the remote application server), ‘patient locator 200’ (the healthcare application), ‘data manager 202’ (the database), and a ‘legacy data system 106.’” *Id.* (citing Ex. 1027 ¶ 187; Ex. 1002, 8:14–15).

Regarding the claim requirement that the “functions in the healthcare application are not duplicative of the legacy application,” Petitioner argues “it would be understood by a POSITA that the function of Evans’ ‘patient locator’ (the claimed ‘healthcare application’) is not duplicative of a legacy application from which the legacy information would be derived.” Pet. 37 (citing Ex. 1027 ¶¶ 191–198).

Dr. Sujansky, Petitioner’s declarant, confirms that patient locator 200 of Evans “is an EMPI, which is a ‘healthcare application,’” and opines that “the function of Evans’ ‘patient locator’ is not duplicative of a legacy application from which the legacy information would be derived.” Ex. 1027 ¶ 191; *see also id.* ¶¶ 186–203 (setting out his full analysis of the limitation). Dr. Sujansky explains that the patient locator of Evans performs the function

of managing a wide variety of data formats by establishing unique patient identifiers (PIDs) for every patient within the system. *Id.* ¶ 194. Dr. Sujansky states his opinion that the patient locator of Evans “does not duplicate the functions of any legacy clinical application from which the converted ‘electronic mainframe data’ is derived.” *Id.* ¶ 197. As he explains, having two identifiers would defeat the purpose of having a unique identifier. *Id.* ¶¶ 198 (“[having two EMPIs] would undermine a fundamental purpose of an EMPI—maintaining a unique identifier for each patient”), 201 (similar). His testimony is consistent with Evans’ disclosure, as described above. His testimony is also persuasive for establishing that a person of ordinary skill in the art would understand that only one EMPI would be used in a system; thus, it would not be duplicated in a legacy application.

Patent Owner asserts that “[w]ith the patented system, a healthcare enterprise is given the option to retain certain applications locally, and to host other healthcare applications remotely. Any applications the enterprise retains locally, i.e., legacy applications, are not duplicative of the healthcare applications hosted remotely.” PO Resp. 32. Patent Owner concludes that “Evans does not render obvious this [legacy clause] limitation.” *Id.* at 33 (citing Ex. 2005 ¶¶ 121–126). This argument, however, is premised on Patent Owner’s argument that an EMPI is not a healthcare application (PO Resp. 12–13), an argument we have not accepted.

Dr. Bergeron, Patent Owner’s declarant, testifies that he has “reviewed Evans, and there is absolutely no disclosure or discussion regarding the interplay of the legacy application and the health care application.” Ex. 2005 ¶ 124. We disagree. *See, e.g.*, Ex. 1002, 12:25–34 (describing the interplay of legacy system 106 and patient locator 200, the EMPI or healthcare application).

Based on a premise that an EMPI is not a healthcare application, Dr. Bergeron concludes that “because Evans does not describe any legacy application, a POSITA would not understand Evans to disclose or suggest the interplay between the healthcare and legacy application—let alone that the enterprise has the option to operate legacy applications that are not duplicate of the healthcare application.” *Id.* at ¶ 125. Dr. Bergeron’s opinion, however, is based on his conclusion that an EMPI is not a healthcare application. *E.g.*, Ex. 2005 ¶¶ 58–59, 108–110. We have determined otherwise. Thus, his conclusion is based on a premise not supported by our construction of the phrase “healthcare application.”

Based on the arguments and evidence before us, we determine that a preponderance of the evidence establishes that Evans discloses that the functions in the EMPI healthcare application are not duplicative of the legacy application, as recited in the legacy clause, and that Evans’ database is configured to accept legacy information, as recited in this legacy clause in claim 50.

- (6) *“generating a query to extract information from the database derived from the application information and the legacy information for managing and tracking a performance of the enterprise facility”*

Petitioner asserts Evans discloses using extracted records for managing and tracking performance of the enterprise facility, such as by performing “analysis of outcomes, utilization and compliance.” Pet. 39–40. (citing Ex. 1002, 14:32-35; Ex. 1027 ¶¶ 207-208.) These analyses are used “to measure the efficacy of [a] treatment plan,” to evaluate “how well available resources,” including hospital personnel and equipment, “are utilizing time,” and “to measure conformance to [government and accreditation] standards and regulations,” all of which describe the

“performance” of a facility. *Id.* (citing Ex. 1002, 14:32–15:6; Ex. 1027 ¶¶ 207–208); *see, e.g.*, Ex. 1027 ¶ 205 (“Evans teaches [using] ‘SQL-92’ Like all database languages, SQL (i.e., ‘Structured Query Language’)—made use of queries to ‘extract information’ stored in a database.”) (citing Ex. 1002, 14:4–6, 10–12, 18:11).

Patent Owner argues that “Evans does not generate a query to extract information “for managing and tracking a performance of the enterprise facility.” PO Resp. 37–43. Patent Owner also argues that because Evans “does not make any mention of a ‘query,’ [Evans] does not suggest that any query is performed.” *Id.* at 40. We disagree.

Evans creates a master database of patient information and legacy information. Ex. 1002, 14:34 (“The EMR system thus provides *a complete audit trail for all patient data.*”) (emphasis added). As shown in Figure 13 of Evans, patient data structure 210 includes pointers to data structures having data within a patient record captured by the point of care system.” *Id.* at 8:20–22. Additionally, “patient data structure 210 may include pointers to data structures having data . . . transferred by the legacy data system 106.” *Id.* at 8:28–29. Data manager 202 uses the EMPI, which is created by patient locator 200, to store and retrieve patient records from this master database. *Id.* at 9:8–9. Evans discloses that the database is implemented using standard conventions and accepts SQL queries. *Id.* at 14:3–22, 18:11; *see also* Ex. 1027 ¶ 205 (“SQL” means “Structured Query Language”).

Evans also discloses that the master database “permits inexpensive analysis” (Ex. 1002, 14:35) of:

how well available resources are utilizing time. Thus, the EMR system provides the capability to analyze utilization of

physicians, nurses, staff and equipment as well as time utilization for patients, such as wait times for referrals, lab results and physician examinations. Lastly, compliance typically refers to conformance with government and accreditation standards and regulations. The EMR system provides tools to enable healthcare providers to measure conformance to standards and regulations.

Id. at 15:2–6. Evans discloses clearly and unambiguously that the Evans data is used for queries related to managing and tracking a performance of the enterprise facility.

*(7) Conclusion Regarding Patentability
of Claim 50 Based on Evans*

Considering the invention as a whole, and based on the evidence, arguments, and analysis above, we determine that Petitioner has met its burden of proving by a preponderance of the evidence that claim 50 would have been obvious based on Evans.

b) Dependent Claims 51 and 52

Petitioner also asserts that dependent claims 51 and 52 would have been obvious over Evans. *E.g.*, Pet. 4, 26, 40.

Claims 51 and 52 each depend from claim 50. Ex. 1001, 18:25–28. Claim 51 states “the public network is the Internet.” *Id.* at 18:25–26. Claim 52 states “the enterprise facility is a private network.”¹⁹ *Id.* at 18:27–28.

¹⁹ The Specification states that “health care enterprises are, for example, hospitals, clinics, physician groups, or even Health Maintenance Organizations (HMOs).” Ex. 1001, 1:30–32. As also disclosed in the Specification, “a health care enterprise may be configured as a single facility enterprise 14, an Internet enterprise 16 [sic, *see* Fig. 1 referring to enterprise 16 as an Intranet], or a widely distributed enterprise 18.” *Id.* at 4:8–10.

Petitioner asserts that Evans discloses or suggests using the Internet as a public network, and also discloses an enterprise facility that is a private network. Pet. 40–41 (citing Ex. 1027 ¶¶ 211-219; Ex. 1002, 13:1–25).

Patent Owner does not address specifically claims 51 and 52.

We have reviewed Petitioner’s contentions and agree with Petitioner that Evans teaches or suggests the limitations in claims 51 and 52 for the reasons set forth in the Petition. Thus, Petitioner also has met its burden of proving by a preponderance of the evidence that claims 51 and 52 are unpatentable based on Evans.

F. Ground 2
Patentability of Claims 53, 54
Based on Evans and Rai

Petitioner asserts that claims 53 and 54 would have been obvious based on Evans and Rai. Pet. 41–42.

Rai (Ex. 1007) is a U.S. patent that issued in 2002 based on an application filed on August 24, 1998, which is before the 1999 priority date to which these claims are entitled, as discussed above. Accordingly, Rai is available as prior art under 35 U.S.C. § 102(e).

We make the following findings concerning Rai.

Rai discloses a coupled data network that includes an accounting system. Ex. 1007, 1:9–11. The disclosed data network provides computer users with remote access to the internet and to private intranets using virtual private network services over a high speed, packet switched, wireless data link. *Id.* at 4:66–5:2. Using the disclosed data network, users are able to access the public internet, private intranets, and their internet service providers (ISPs) over a wireless link. *Id.* at 5:2–4. The disclosed data network allows internet and intranet applications. *Id.* at 5:11–12. These

applications include electronic mail, file transfer, browser based world-wide web (“WWW”) access and other business applications built around the internet. *Id.* at 5:12–15. The data network also includes a management system for managing the network elements. *Id.* at 36:58–59.

Petitioner asserts Rai discloses a system for providing end-users with access to the internet. Pet. 23. Petitioner also asserts that Rai discloses “a ‘generic corporate facility comprising an ‘intranet,’” which can be remotely accessed by corporate employees.” *Id.* at 41 (citing Ex. 1027 ¶ 221). As shown in Figure 1, labeled “Prior Art,” corporate intranet 18 is connected to internet 20 via router 12B. Ex. 1007, Fig. 1, 1:50–61.

1. Claim 53

Claims 53 depends from claim 50. Claim 53 recites that “the enterprise facility is an intranet.” Ex. 1001, 18:29–30.

As to claim 53, Petitioner asserts it would have been obvious for a healthcare enterprise facility, as described in Evans, to use a private intranet, as disclosed in Rai, to allow physicians and other employees to remotely access the facility’s private network, allowing them to work “from home or while on the road.” Pet. 41 (citing Ex. 1007, 1:53-56; Ex. 1027 ¶ 222). We understand the rationale for why this would have been obvious to be, as disclosed in Rai, to permit employees or others to access a private network from home or other remote locations.

Patent Owner does not specifically address claim 53 in its Response or its Sur-reply.²⁰

²⁰ The Response argues only claim 54. PO Resp. 44 (*see* heading VII.A). The Sur-reply also argues only claim 54. Sur-reply 25 (arguing that the addition of Rai “does not render claims 6 and 54 obvious.”) (*see* heading III).

We have reviewed Petitioner’s contentions and agree with Petitioner that Evans cobined with Rai teaches or suggests the limitations in claim 53 for the reasons set forth in the Petition, which we adopt as our findings and conclusions. Thus, Petitioner has met its burden of proving by a preponderance of the evidence that claim 53 is unpatentable based on Evans and Rai.

2. Claim 54

Claim 54 also depends from claim 50. Claim 54 recites that “the linking step includes the server and the database to the network at a major point of presence.” *Id.* at 18:31–33.

Concerning the “major point of presence” limitation, the ’647 patent discloses, in the context of Figure 1, that remote application server 24 accesses the Internet at backbone site 12 “through point of presence 60.” Ex. 1001, col. 3:65–4:1. Access to the Internet may be provided by an Internet service provider (ISP). *Id.* at 5:7–20. “The point of presence hardware 60 may be a router, switch, or other hardware appropriate to provide a point presence on the Internet 20.” *Id.* at 5:55–58. Figure 1 also shows “backbone site 19 having redundant computers 62 and 64 accessing the Internet via point presence 66.” *Id.* at 7:41–44. The ’647 patent also uses the phrase “major point presence.” *See, e.g., id.* at 10:22–25 (“the server and database are linked to the Internet at a major point presence”). We have not been directed to any persuasive evidence establishing a substantive difference between a “point of presence” and a “major point of presence.”²¹ Thus, the linking step in claim 54 involves “linking the

²¹ The ’647 also uses interchangeably the phrases “point presence” (*see, e.g.,* Ex. 1001, col. 3:65–4:1) and “point of presence” (*see, e.g., id.* at 5:55–58

application server and the database to a public network” (from claim 50) to provide a point of presence on the Internet. We also know from the written description that a router, switch, or other appropriate hardware may be used to provide a major point of presence. *Id.* at 5:55–58.

As to claim 54, Petitioner asserts that Evans discloses linking the application server to the Internet at a “gateway.” Pet. 41 (citing Ex. 1002, Fig. 24; Ex. 1027 ¶ 226). According to Petitioner, a “POSITA would understand this gateway would necessarily be located at a point of presence.” *Id.* at 41–42 (citing Ex. 1027 ¶ 226).

Petitioner provides (Pet. 42) the following annotated Figure 1 from Rai.

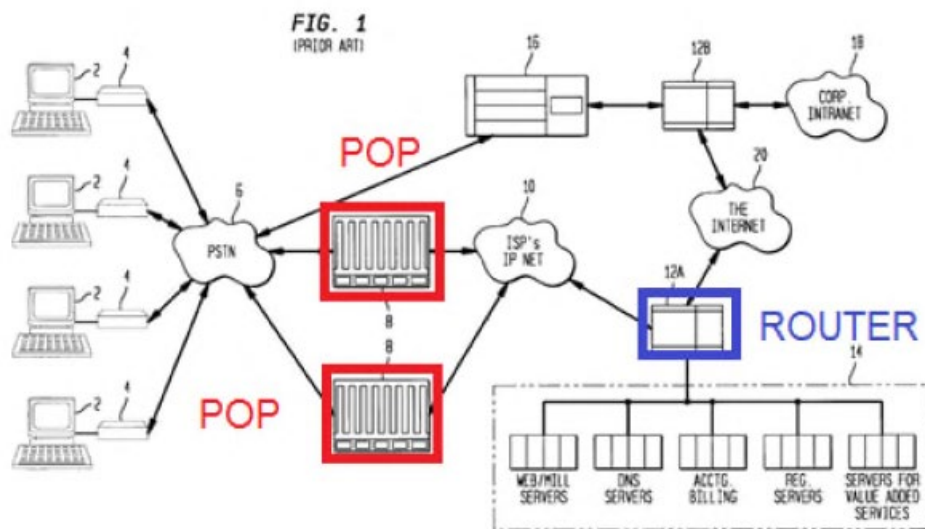


Figure 1 from Rai, annotated by Petitioner. Pet. 42.

According to Petitioner, Figure 1 of Rai discloses a typical configuration for providing Internet access in which users (2) connect to point of presence (“POP”) (8), which then transmit signals over intranet

(using both terms in one sentence (emphasis added)). Again, we have not been directed to any substantive difference between these phrases.

backbone (10) to router (12A), which connects to Internet backbone (20).
Pet. 42 (citing Ex. 1007 at 1:12–16, 26–50; Ex. 1027 ¶ 227.)

Petitioner also asserts that a “POSITA would understand Rai to disclose ‘major’ POPs, given the high capacity communication lines comprising the ‘intranet backbone’ that are ‘leased from intranet backbone provider like MCI, Inc.’ terminating at the POPs.” Pet. 42 (citing Ex. 1027 ¶ 227).

Petitioner concludes “it would have been obvious to link the application server of Evans to the Internet using the configuration of Rai (*i.e.*, via a major point of presence located close to a backbone site) because this was a typical and readily available option with low cost and short implementation time.” *Id.* (citing Ex. 1027 ¶ 228).

Patent Owner takes a different position about the disclosures of Evans and Rai. According to Patent Owner, “Evans does not disclose this [claim 54] limitation, and Evans and Rai does not render it obvious.” PO Resp. 44 (citing Ex. 2005 ¶¶ 138-145).

Patent Owner relies on the following annotated Figure 24 from Evans (see PO Resp. 47).

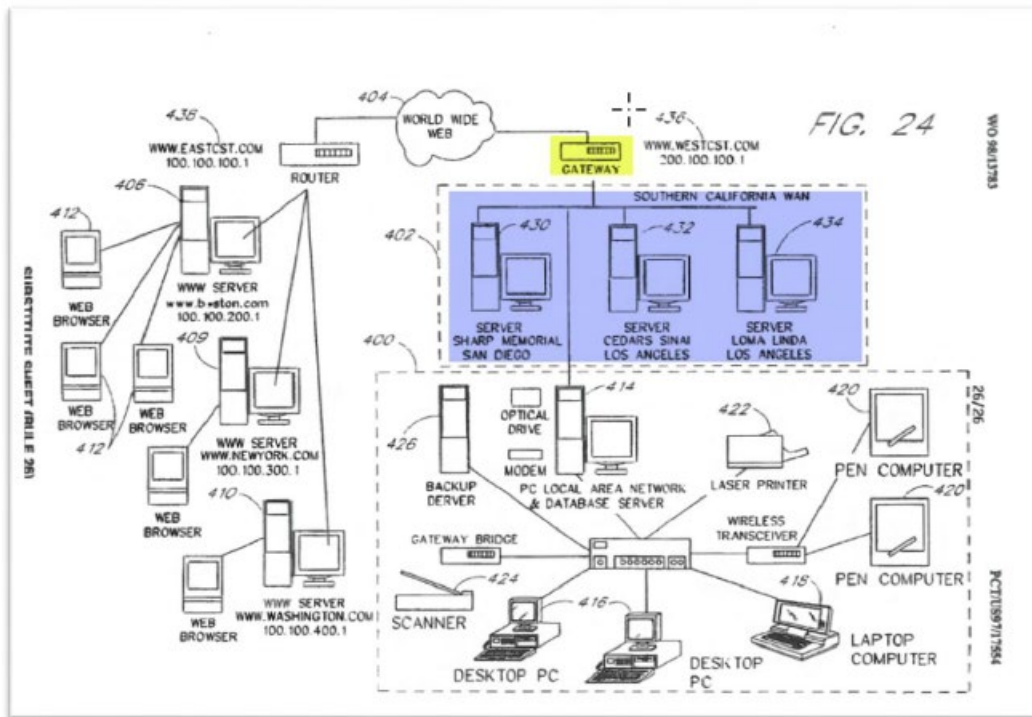
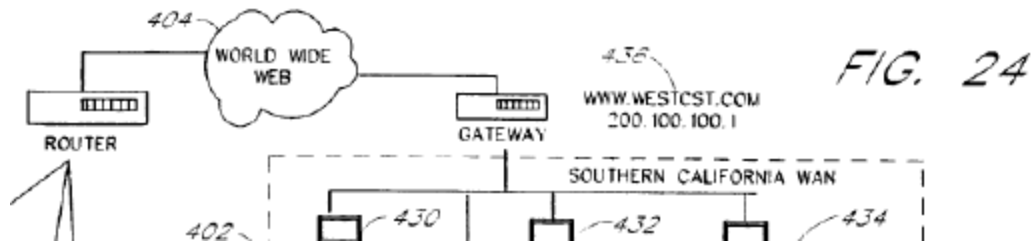


Fig. 24 from Evans, annotated by Patent Owner. PO Resp. 47.

According to Patent Owner, because the gateway (shown in yellow) in Patent Owner’s annotated Figure 24 of Evans is located outside the “Southern California WAN” (shown in blue) in annotated Figure 24, Evans’ servers are linked to the network at the hospitals, which are not a major point of presence.” PO Resp. 48 (citing Ex. 2005 ¶ 143).

We note, as shown in our excerpt from Figure 24, reproduced below, that Evans discloses in Figure 24 a “router” connecting the end users to the “World-Wide Web,” and a “gateway” connecting the application servers to the “World-Wide Web.” We also note that Figure 24 uses the same drawing symbol for both the “router” and the “gateway.”



Excerpt from Fig. 24 in Evans
showing the “ROUTER” and “GATEWAY.”

In arguing that the gateway is not connected to the WAN, neither Patent Owner nor Dr. Bergeron explain the purpose or function of the solid vertical line connecting the gateway to the “Southern California WAN.”

Patent Owner also argues that Petitioner’s rationale for combining Evans and Rai was a single sentence, conclusory, and insufficient under controlling law for explaining “why” the proposed combination would have been obvious to a person of ordinary skill. We disagree.

The ’647 patent teaches that a major point of presence simply is established using “a router, switch, or other hardware appropriate to provide a point presence on the Internet 20.” Ex. 1001, 5:55–58. Claim 54 does not recite or require an Internet service provider, although using an ISP is a preferred method of establishing the point of presence. Evans does not disclose what is intended by the term “gateway” or how a “gateway” is different from a “router,” if there is any difference. Rai, in describing and illustrating a “prior art” system in Figure 1, refers to “points of presence (POPs) 8” as a way for users to connect to network service. Ex. 1007, 1:25–28.

We have determined that a person of ordinary skill is has a college degree in a related technological area and has significant industry experience. *See* section III.C of this Decision.

Based on the evidence discussed above, we determine it would have been obvious to such a highly educated and experienced person of ordinary skill to use a router, switch, or other appropriate hardware to connect the server and the database to a public network, as required by claim 54. As *KSR* reminds us, “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

The fact that Petitioner’s explanation of “why” the proposed combination would have been obvious is a single sentence is not *per se* disqualifying. We consider the arguments and evidence based on their merits, not their length.

3. Conclusion for Claims 53 and 54

Considering the invention as a whole, and based on the evidence, arguments, and analysis above, we determine that Petitioner has met its burden of proving by a preponderance of the evidence that claims 53 and 54 would have been obvious based on Evans and Rai.

G. Ground 3 *Patentability of Claims 1–5, 10–13, 15–25, 50–53, 55* *Based on Johnson and Evans*

In Ground 3, Petitioner asserts that claims 1–5, 10–13, 15–25, 50–53, and 55 would have been obvious based on Johnson (Ex. 1003) and Evans (Ex. 1002). Pet. 43–73.

1. Scope and Content of Johnson (Ex. 1003)

We make the following findings concerning Johnson.

Johnson is a U.S. patent that issued in 2005 based on an application filed on October 29, 1997, which is before the 1999 priority date to which the challenged claims are entitled, as discussed above. Accordingly, Johnson is available as prior art under 35 U.S.C. § 102(e).

Johnson discloses a method and system “for consolidating and distributing information.” Ex. 1003, Abstract. Both restricted local and unrestricted system-wide uses are permitted. *Id.* The preferred embodiment of the invention provides an integrated health care system. *Id.* Information is electronically transferred among the system components to link an individual’s local records to those stored remotely. *Id.*

Figure 3 from Johnson is reproduced below.

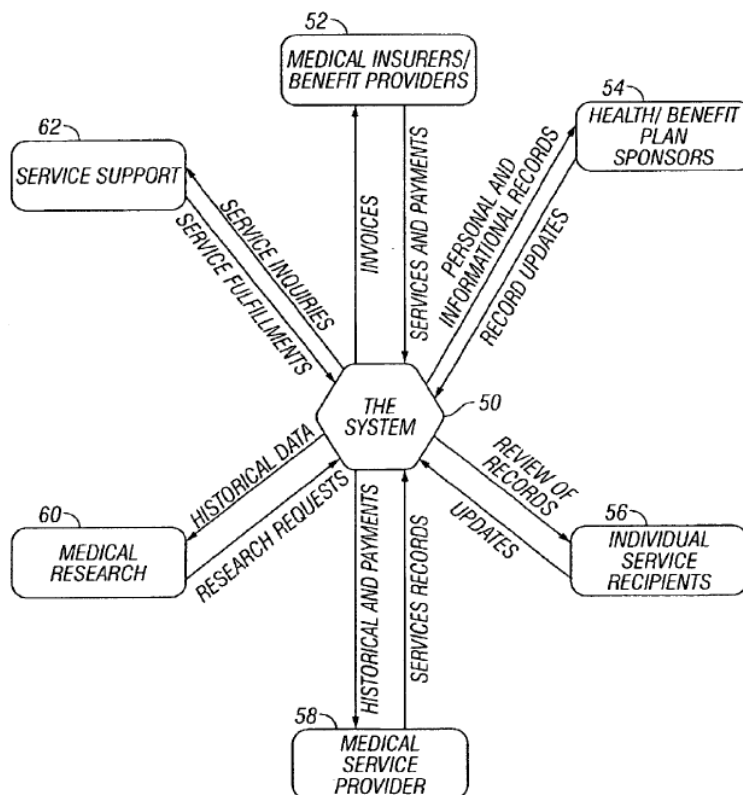


FIG. 3

FIG. 3 is a context diagram of the system for consolidating and distributing information. Ex. 1003, 4:22–24.

Figure 3 shows six primary functional areas of the system and identifies the users of each functional area. Ex. 1003, 11:17–21. As shown in Figure 3, system 50 “links together functional areas such as Medical Insurers/Benefits Providers 52, Health/Benefit plan sponsors 54, individual

service recipients 56, health care service providers 58, Medical Research 60 and service support 62.” *Id.* at 11:21–25. Figures 4–9 show a flow diagram for each of the six functional areas shown in Figure 3. *Id.* at 4:25–42.

As disclosed in Johnson,

The invention provides centralized record collection and facilitates the transfer of information among the different system components by electronically linking an individual's local records to those stored remotely, such as on the computer systems of insurance companies, health care service providers, health plan sponsors, medical researchers, and service support. A complete record of individual care is thereby provided.

Id. at 5:13–20.

As shown in Figure 1, centralized host processing system 14 is used to maintain, consolidate, and redistribute information generated at all access endpoints. *Id.* at 6:1–3. Centralized host processing system 14 can be, for example, a computer network, or a plurality of such linked networks having a central server. *Id.* at 6:6–9. The consolidated information is then distributed to various locations 22, 24, 26, 28 on the network, for example, in response to a query. *Id.* at 6:9–11.

Johnson also provides security for restricting access to the system to an authorized user. *Id.* at 10:64–65. The types of security supported by the Johnson system include password protection, encryption, and identification authentication. *Id.* at 10:65–67. In a preferred embodiment, Johnson discloses that “[k]eys such as [a] subscriber identification number” can be used to index the data stored in a relational database of a patient’s health care history. *Id.* at 8:11–16.

2. *Analysis*

a) *Claims 50–53, 55.*

Petitioner asserts that claim 50–53, 55 would have been obvious based on Johnson and Evans. Pet. 46–54, 66–69.

We determined above that claims 50–52 would have been obvious based on Evans alone. Adding Johnson does not change our analysis or conclusion.

Petitioner provides a clause-by-clause analysis of independent claim 50, asserting, where each step, element, or limitation is disclosed in Evans, as well as where most limitations are disclosed in Johnson. Pet. 46–54. Specifically, Petitioner recognizes that Johnson does not expressly disclose “legacy” information generated by “legacy” applications. *Id.* at 45 (“Johnson does not specifically disclose consolidating information from ‘legacy applications.’”) (citing Ex. 1027 ¶ 240)). Petitioner, however, relies on Evans for this element. *Id.* (“Evans, however, expressly teaches consolidating patient information from ‘legacy’ applications and external sources.” (citing Ex. 1027 ¶ 240)). Petitioner also asserts that “a POSITA would understand that Johnson renders obvious the claimed acceptance of ‘legacy’ data,” because “Johnson teaches accepting data from ‘any computer’ to create a ‘complete’ record.” *Id.* at 51 (citing Ex. 1027 ¶¶ 273–75).

As a reason to combine Evans and Johnson, Petitioner asserts that “a clinical or EMR system (like Evans) is one portion of the larger Johnson system. *Id.* at 43 (citing Ex. 1027 ¶¶ 232, 239). Petitioner also asserts that while Johnson does not include details “regarding a preferred implementation for the point-of-care clinical software,” Evans provides a detailed disclosure of the operation of its point-of-care EMR software.

Id. at 44 (citing Ex. 1027 ¶¶ 235–236). Petitioner concludes that a person of ordinary skill “would have been motivated to look to Evans for guidance regarding implementation of the clinical data management aspects of Johnson.”

Patent Owner asserts that Johnson does not disclose the “legacy” application as recited in claim 50, and that Evans “fails to disclose limitation 50e” (we referred in our analysis of Ground 1 to limitation “50e” as the “legacy clause”). Petitioner relies on Evans for this clause. *See, e.g.*, Pet 45 (“Evans, however, expressly teaches consolidating patient information from ‘legacy’ applications and external sources.” (citing Ex. 1027 ¶ 240)). We found in Ground 1 that Evans discloses that the functions in the EMPI healthcare application are not duplicative of the legacy application, as recited in the legacy clause in claim 50, and that Evans’ database is configured to accept legacy information, as recited in the legacy clause.

Patent Owner also asserts that enterprise organizations were motivated to “‘scrap their old system(s) and start new’—not to retain legacy applications in operation.” PO Resp. 53 (citing Ex. 2005, ¶ 156). We disagree, based on our analysis of Evans in Ground 1.

Patent Owner also asserts that combining Evans and Johnson “would introduce substantial expense and risk” (PO Resp. 53), “would be inconsistent with Johnson’s principles of operation” (*id.* at 61), and “would be redundant” (*id.* at 62). We disagree based on the evidence discussed in Ground 1 and above.

Evans and Johnson each are directed to providing a complete electronic medical record based on various applications. Evans clearly discloses using a legacy application that does not duplicate its EMPI patient identifier healthcare application, as we discussed in Ground 1. Johnson’s

relational database uses a subscriber identification number, similar to Evans to index and consolidate information from various distinct applications.

Considering the invention as a whole, and based on the evidence, arguments, and analysis above, we determine that Petitioner has met its burden of proving by a preponderance of the evidence that claim 50 would have been obvious based on Johnson and Evans.

(1) Dependent Claims 51–53, 55

For Ground 3, Patent Owner does not address specifically claims 51–53. The burden remains on Petitioner, however, to prove unpatentability by a preponderance of the evidence.

As discussed in Ground 1, Evans discloses the limitations of claims 51 and 52. We consider those claims unpatentable for the reasons provided for the Evans-alone ground above. For claim 53, which recites that the “enterprise facility is an intranet,” Petitioner relies on Johnson. Pet. 66–67 (“Johnson discloses its system ‘using a local area network (LAN) or intranet,’ which discloses the ‘private network’ and ‘intranet’ limitations of claims 3–4 and 52–53” (citing Ex. 1003, 3:5-11; Ex. 1027 ¶ 330)). We agree with, and adopt, Petitioner’s analysis and conclusion that claim 53 would have been obvious based on Evans and Johnson.

Claim 55 depends from claim 50 and adds the further limitation that “the healthcare application includes a plurality of applications.” Ex. 1001, 18:34–35. Petitioner includes claim 55 in a chart with other claims having a “healthcare application” limitation. Pet. 67. The Petition then discusses what Evans and Johnson disclose (*id.* at 68–69). In this discussion, Petitioner states:

Johnson and Evans each disclose an application for capturing and storing clinical patient information in patient records, which is a

clinical information management application of *claim 11*, and the captured data is the data of *claim 15*. (citing Ex. 1027 ¶¶ 352, 361). Johnson discloses an embodiment in which this and other applications are operating on the central host. (citing Ex. 1027 ¶¶ 352, 361).

Pet. 68 (emphases added). Petitioner relates this disclosure to claims 11 and 15, but does not mention claim 55 specifically.

Patent Owner also does not address claim 55 in its Response or Sur-reply.

As discussed above, Johnson discloses that system 50 links together functional areas such as Medical Insurers/Benefits Providers 52, Health/Benefit plan sponsors 54, individual service recipients 56, health care service providers 58, Medical Research 60 and service support 62.

Ex. 1003, 11:21–25, Fig. 3. Johnson links “local records” to various healthcare applications “stored remotely,” such as those shown and described in connection with Figure 3, to provide a “complete record” of a patient’s individual care. *Id.* at 5:13–20. Thus, it is clear that Johnson discloses a plurality of healthcare applications, as recited in claim 55.

b) Claims 1–5, 10–13, 15–25

As discussed above, claim 1 and claim 50 are similar. Claim 1, however, includes additional limitations, not included in claim 50, essentially requiring two secure communication channels that allow two independent enterprise facilities to each access only their own data and applications over their own secure channel. Ex. 1001, 14:8–45.

Petitioner states that “[m]any steps of claim 1 have substantial overlap with the steps of claim 50 and are satisfied by Johnson and Evans for the same reasons previously discussed. Pet. 54 (citing Ex. 1027 ¶¶ 292–294).

We also determined above, in Petitioner’s Ground 1, that claim 50 would have been obvious based on Evans alone.

Petitioner acknowledges that Evans does not state that its EMR system can be used by healthcare enterprise facilities that are “independent.” Pet. 45. Petitioner asserts, however, that Johnson teaches a system used by multiple independent health care facilities. *Id.* Thus, we will apply Evans as we did in our analysis of claim 50 in Petitioner’s Ground 1. We will not repeat here the findings, analysis, and conclusions we stated in determining that claim 50 would have been obvious based on Evans alone. In considering Petitioner assertions against claim 1 in Ground 3, we will focus on the clauses unique to claim 1 dealing with requiring two secure communication channels that allow two independent facilities to each access only their own data and applications over their own secure channel.

Petitioner asserts the “primary difference between these claims [claims 1 and 50] is that claim 1 requires two independent enterprise healthcare facilities using the system, as opposed to the single facility recited by claim 50, where each facility is associated with a ‘portion’ of the database and access to the respective portions is restricted to a user device at the associated facility.” Pet. 54 (citing Ex. 1027 ¶¶ 65–67, 292–293).

Dr. Sujansky provides a claim chart comparing claims 1 and 50 (*see* Ex. 1027 ¶ 292) and summarizes the differences between claims 1 and 50.

Dr. Sujansky states:

the differences between claim 50 and claim 1 are that the method of claim 1: (a) requires two enterprise healthcare facilities using the system, (b) the “receiving,” “processing,” and “storing ... in ... portion[s]” steps include additional limitations that are not present in the “storing” feature of the healthcare application of claim 50, and (c) claim 1 recites a restricted access limitation—“wherein healthcare data in the first portion of the database is

only accessible to the first end user device and healthcare data in the second portion of the database is only accessible to the second end user device.”

Ex. 1027 ¶ 293.

Petitioner provides a clause-by-clause analysis of claim 1 asserting where, in its view, each element of the claim is disclosed in either Johnson or Evans. Pet. 54–66. Petitioner also provides for this Ground 3 a separate section on “Motivation to Combine Johnson and Evans,” which applies to all claims challenged in Petitioner’s Ground 3. *Id.* at 43–46.

Patent Owner focuses its argument on a portion of what Petitioner has labelled clause 1 (c). PO Resp. 68. Patent Owner asserts that neither Evans nor Johnson disclose or suggest the clause in claim 1 stating:

storing the processed first healthcare data in a first portion of the database associated with the first healthcare enterprise facility and storing the processed second healthcare data in a second portion of the database associated with the second healthcare enterprise facility.

Id. (see Ex. 1001, 14:24–29). We refer to this clause as the “storing clause.” The storing clause requires that data from each of the first and second facilities is stored, respectively, in first and second portions of the database.

Petitioner admits that “Evans does not disclose performing [the “receiving” and “processing”] steps²² for a second end user at a second independent enterprise facility. Pet. 58. Petitioner also admitted that Evans does not disclose “the corresponding use of [first and second] ‘portions’ of a database” for storing the data, as recited in the storing clause. *Id.* Petitioner relies on Johnson for “these and all other features of the receiving, processing, and storing steps.” *Id.* (citing ¶¶ 301–314).

²² See Ex. 1001, 14:20–23.

(1) The Storing Clause

Petitioner asserts that “Johnson discloses at least two examples” in which healthcare data for an independent facility is received, processed by an application, and stored in a portion of the database associated with that facility. Pet. 58 (citing Ex. 1027 ¶¶ 302–307). According to Petitioner, Johnson discloses “[r]eceived data is then tagged, verified, and used to calculate payment due for authorized services,” and then “stored in the provider service history/payment and subscriber/medical history databases.” Pet. 59 (citing Ex. 1003, 23:41–52; Ex. 1027 ¶¶ 303–304). Petitioner also asserts that “payment history records” are “stored in the ‘provider service history/Payment database’ under the service provider’s ‘provider ID’ with other account information.” Pet. 59 (citing Ex. 1003, 16:15-16, 26:44-46).

Petitioner relies (Pet. 61) on the following annotated Figure 9 from Johnson to illustrate how the various sub-databases together comprise the central host database.

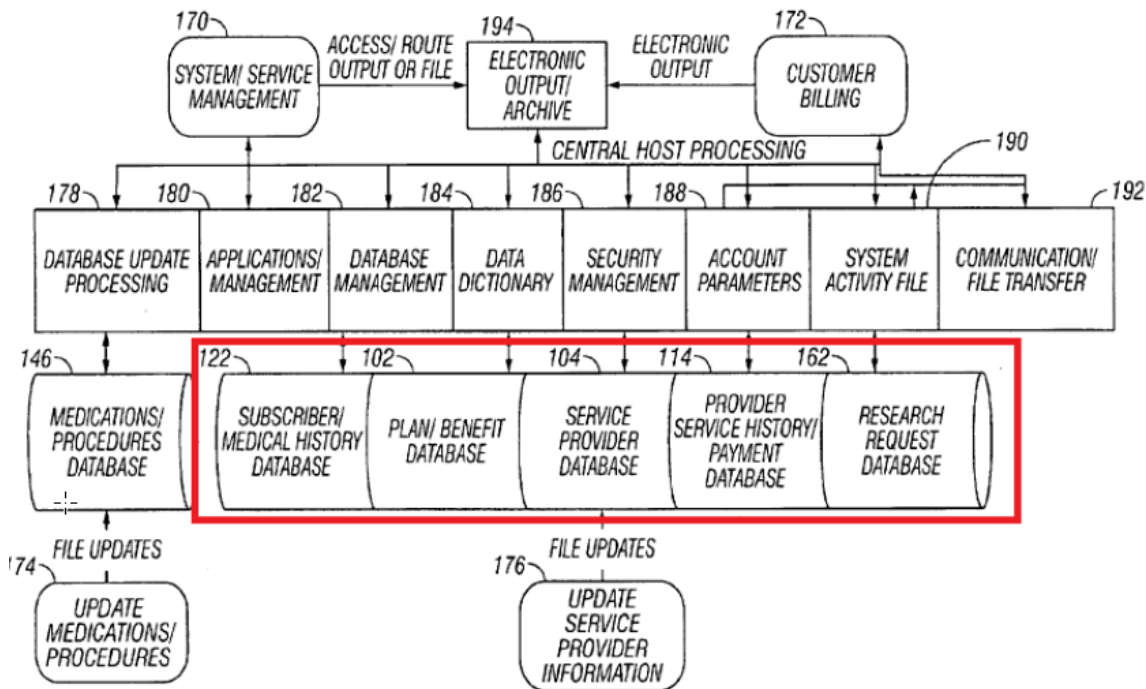


FIG. 9

Petitioner’s annotated Fig. 9 of Johnson showing a flow diagram of service support processes. Pet. 61; Ex. 1003, 4:41–42.

According to Petitioner, this illustrates the provider service history/Payment database is “divided into portions, each associated with a ‘provider ID’ that identifies a particular service provider.” Pet. 61. Petitioner asserts that a person of ordinary skill in the art would understand that “data within these portions, or sub-databases, that are indexed under a given unique provider ID, comprises a logical partition, or ‘portion,’ of the database as described in the ‘647 patent.” *Id.* (citing Ex. 1027 ¶ 314; Ex. 1001, 10:66–11:1).

Patent Owner, and Dr. Bergeron, take a different view. Patent Owner asserts that Figures 4–9 of Johnson, showing various database portions for the primary functional areas of the Johnson system, shows a “single sub-database with an index.” PO Resp. 68. Patent Owner then argues that

“Johnson’s disclosure of indexing is not a disclosure of partitioning the database.” *Id.* at 69 (citing Ex. 2005 ¶¶ 178–182).

Dr. Bergeron testifies that Johnson does not disclose the storing clause. It is Dr. Bergeron’s testimony that “Johnson breaks the database into sub-databases based on the information type” and not based on “whether the data comes from a first or second organization.” Ex. 2005 ¶ 178. It is Dr. Bergeron’s opinion that Johnson discloses its database is broken into a “subscriber/medical history database,” a “plan/benefit database,” a “service provider database,” a “provider service history / payment database,” and a “research request database.” Ex. 2005 ¶ 178 (citing Ex. 1003, 4:4–13, Figs. 4–9). Dr. Bergeron concludes that “[t]here is no disclosure that Johnson’s database is partitioned into a portion for a first and second healthcare provider.” It is Dr. Bergeron’s opinion that “Johnson’s disclosures that the service history/payment database may be indexed by provider ID does not teach or suggest a multi-partition database.” *Id.* at ¶ 181.

It is also Dr. Bergeron’s opinion that “a POSITA would understand that Johnson is dealing with a system intended to handle diverse data types from various organizations. Thus, its system partitions the database by information type” (Ex. 2005 ¶ 184), such as the users of each functional area shown in Figure 3, showing that system 50 links together functional areas such as Medical Insurers/Benefits Providers 52, Health/Benefit plan sponsors 54, individual service recipients 56, health care service providers 58, Medical Research 60, and service support 62 (Ex. 1001, 11:21–25).

Thus, Dr. Sujansky and Dr. Bergeron, each a highly qualified expert in the field of medical informatics, provide opposing opinions about whether Johnson discloses the storing clause, as recited in claim 1. Dr. Sujansky

opines it does (*e.g.*, Ex. 1027 ¶ 300); Dr. Bergeron opines it does not (*e.g.*, Ex. 2005 ¶ 178).

Figure 3 in Johnson illustrates a “system for consolidating and distributing *information*.” Ex. 1003, 4:22–24 (emphasis added). As explained in Johnson, “[a]ll health care program providers are identified within, and electronically linked to, the system and are therefore provided with up-to-date information.” *Id.* at 11:56–58. This sharing of information among “all providers” is consistent with Dr. Bergeron’s opinion of the disclosure in Johnson.

Johnson discloses:

For service providers, a server can store subsets of the central databases, applications for performing batched update functions, and software modules for accessing functionalities of other system components. This model allows localized sharing of data among service providers operating within a single administrative setting, for example, within a hospital or clinic, without the delays and additional costs of continual central host accesses. Restricted and unrestricted system-wide uses can therefore be implemented.

Ex. 1003, 10:38–46. Dr. Sujansky cites this passage and concludes that “different service providers are partitioned into respective subsets within the host database(s). Ex. 1027 ¶ 146 (citing Ex. 1003, 10:38-45), *see also id.* at ¶ 311 (referring to this same passage and referring to “subsets” of data as “partition(s)”). We disagree.

Although Johnson discloses that “a server can store subsets of the central databases,” the disclosed purpose is not to create a portion of the database, but simply to allow “localized sharing of data among service providers operating within a single administrative setting, for example, within a hospital or clinic, without the delays and additional costs of

continual central host accesses.” Ex. 1003, 10:41–45. We have not been directed to any persuasive evidence that this passage discloses or suggests storing data in a first *portion* of the database *associated with a first healthcare enterprise facility* and storing data in a second *portion* of the database associated with *a second healthcare enterprise facility*, as recited specifically required by claim 1. Indeed, the passage in Johnson on which Dr. Sujansky relies discloses use by different people in a single “hospital or clinic.” Ex. 1003, 10:41–44. The objective of Johnson’s system is to avoid delays of “central host accesses.” *Id.* at 10:45.

We are not directed to persuasive disclosure in Johnson that supports Petitioner’s position that the data indexed under a given unique provider ID is itself the “logical partition, or ‘portion,’” of the database as claimed. *See* Pet. 61. As the ’647 patent explains, and would be understood by a person of ordinary skill in the art, a partition is a logical or physical separation of the data. *See, e.g.*, Ex. 1001, 9:60–10:15 (“The database portion may be configured as either a logical partition or a physical partition.”); Ex. 1027 ¶ 142 (describing Johnson’s data as “partitioned into distinct physical databases based on the type of data stored”); Ex 2005 ¶ 181 (explaining partitioning, and noting that partitioning is when a database is “split into disjoint parts and stored [separately]”). Petitioner relies on the fact that the unique provider ID is associated with a given record to be the partition. Pet. 61 (being “indexed under a given unique provider ID comprises the logical partition, or ‘portion,’”); *see also, e.g.*, Ex. 1027 ¶ 308 (Dr. Sujansky stating that Johnson’s physical partitions are “further partitioned logically such that all records with a given provider ID value within the [sub-database] comprise a logical partition”), 311 (equating “subsets” of data to “partition(s)” of data). Because a person of ordinary skill in the art would

understand “partitions,” or the portions of data referenced in the claims, are a specific arrangement of data structures, we agree with Patent Owner and its supporting testimony of Dr. Bergeron that merely identifying data or associating subsets of data with common values (i.e., indexing by provider ID) does not constitute partitioning. PO Resp. 69 (citing Ex. 2005 ¶¶ 178–182); .

Petitioner in its Reply distances itself from its earlier position that the claim requires a partition, stating that claim 1 “does not require partitioning – it recites storing data in ‘first’ and ‘second’ portions’ of the database.” Reply 20. The ’647 patent, and the parties, have used the word “partition” and “portion” interchangeably. *See, e.g.*, Ex. 1001, 9:60–64 (“The clinical data repository is a database that is partitioned to provide a *database partition* for an individual enterprise as shown in block 211. The *database portion* may be configured as either a logical partition or a physical partition, although a logical partition is preferred” (emphasis added)), Fig. 2 (referring repeatedly to “partitions”); Pet. 58 (“Johnson discloses at least two examples in which healthcare data for an independent facility is received, processed by an application, and stored in a *portion* of the database associated with that facility” (emphasis added)), *id.* at 60 (“A POSITA would understand the central host database of Johnson is *partitioned* into multiple sub-databases” (emphasis added)). In the context of this proceeding, we view the words as reciting a distinction without a substantive difference.

We determine, based on the Johnson disclosure and Dr. Bergeron’s testimony, that the weight of the evidence does not establish that Johnson discloses or suggests the storing clause of claim 1. Accordingly, we determine that Petitioner has not established by a preponderance of the

evidence that claim 1 would have been obvious based on Johnson and Evans.

(2) Conclusion for Claim 1

Considering the invention as a whole, and based on the evidence and analysis above, we determine that Petitioner has *not* met its burden of proving by a preponderance of the evidence that claim 1 is unpatentable based on Johnson and Evans.

(3) Dependent Claims

Claims 2–5, 10–13, and 15–25 depend, directly or indirectly, from independent claim 1. Because each of these claims includes all the elements and limitations of claim 1, and because we have held that Johnson and Evans do *not* disclose or suggest the “storing clause” in claim 1, Petitioner also has *not* met its burden of proving by a preponderance of the evidence that claims 2–5, 10–13, and 15–25 are unpatentable based on Johnson and Evans.

*H. Ground 4
Patentability of Claims 6–9, 14, 54
Based on Johnson, Evans, and Rai*

Petitioner asserts that each of dependent claims 6–9, 14, and 54 “recite various conventional network limitations disclosed in Rai that were obvious to combine with Johnson and Evans.” Pet. 73–75.

Claims 6–9, and 14 depend, directly or indirectly, from claim 1. Petitioner does not assert that Rai cures the deficiencies we have discussed above for claim 1 in Ground 3. Because each of these claims includes all the elements and limitations of claim 1, and because we have held that Johnson and Evans do *not* disclose or suggest the “storing clause” in claim 1, Petitioner also has *not* met its burden of proving by a preponderance of the evidence that claims 6–9, and 14 are unpatentable.

We held in Ground 2 that claim 54 would have been obvious based on Evans and Rai. *See* Sec. III.F.2 above. Claim 54 recites that the “linking step” of claim 50 “includes the server and the database to the network at a major point of presence.” Ex. 1001, 18:31-33. Adding Johnson to the proposed combination of references does not change our conclusion that the limitations in claim 54 are not patentable based on Johnson, Evans, and Rai.

IV. CONCLUSION

We hold that Petitioner has shown by a preponderance of evidence that claims 50–52 are not patentable based on Evans.

We hold that Petitioner has shown by a preponderance of evidence that claims 53 and 54 are not patentable based on Evans and Rai.

We hold that Petitioner has shown by a preponderance of evidence that claims 50–53, and 55 are not patentable based on Johnson and Evans.

We hold that Petitioner has not shown by a preponderance of the evidence that claims 1–5, 10–13, and 15–25 are unpatentable based on Johnson and Evans.

We hold that Petitioner has not shown by a preponderance of the evidence that claims 6–9, and 14 are unpatentable based on Johnson, Evans, and Rai.

We hold that Petitioner has shown by a preponderance of evidence that claim 54 is not patentable based on Johnson, Evans, and Rai.

V. MOTION TO EXCLUDE

Petitioner moves to exclude Exhibits 2008, 2009, and portions of Exhibit 2005. Mot. Excl. 1.

Exhibit 2005 is the Declaration testimony of Dr. Bergeron, Patent Owner’s expert Declarant. Petitioner asserts that paragraphs 108 and 143 of Dr. Bergeron’s Declaration “are premised on unreliable bases, specifically

Exhibits 2008 and 2009” and should be excluded under Federal Rules of Evidence 702, 703. Mot. Excl. 1–2.

In paragraph 108, Dr. Bergeron opines, based in part on Exhibit 2008, that a person of ordinary skill in the art in 1999 would not consider an application to be an EMPI if it cannot “search for, identify, merge, and de-duplicate patient records.” Mot. Excl. 2 (citing Ex. 2005 ¶ 108).

In paragraph 143, Dr. Bergeron opines, based in part on Exhibit 2009, “that hospitals typically connected to the Internet using an intermediary ISP or network providers.” *Id.* (citing Ex. 2005 ¶ 143).

We have not relied on either paragraph 108 or paragraph 143 of Exhibit 2005 in reaching our Decision. We also have neither cited nor relied on Exhibits 2008 or 2009.

Our general approach for considering challenges to the admissibility of evidence was outlined in *Corning Inc. v. DSM IP Assets B.V.*, IPR2013-00053, Paper 66 at 19 (PTAB May 1, 2014). As stated in *Corning*, similar to a district court in a bench trial, the Board, sitting as a non-jury tribunal with administrative expertise, is well-positioned to determine and assign appropriate weight to evidence presented. *Id.* (citing *Donnelly Garment Co. v. NLRB*, 123 F.2d 215, 224 (8th Cir. 1941) (stating, in the context of reviewing an administrative determination of the National Labor Relations Board based on findings by a Trial Examiner, “We think that experience has demonstrated that in a trial or hearing where no jury is present, more time is ordinarily lost in listening to arguments as to the admissibility of evidence and in considering offers of proof than would be consumed in taking the evidence proffered . . . One who is capable of ruling accurately upon the admissibility of evidence is equally capable of sifting it accurately after it has been received . . .”)).

Moreover, “there is a strong public policy for making all information filed in an administrative proceeding available to the public.” *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, CBM2012-00010, Paper 59 at 40 (PTAB February 24, 2014). Rather than excluding evidence that is allegedly hearsay, confusing, misleading, untimely, and/or irrelevant, we will simply not rely on it or give it little or no probative weight, as appropriate, in our analysis. “In an *inter partes* review, we regard it as the better course to have a complete record of the evidence to facilitate public access, as well as appellate review.” *Sony Computer Entm’t Am. LLC v. Game Controller Tech. LLC*, IPR2013-00634, Paper 32 at 31 (PTAB Apr. 14, 2015); *see also Gnosis S.p.A. v. S. Alabama Med. Sci. Found.*, IPR2013-00118, Paper 64 at 43 (PTAB June 20, 2014) (citing *Donnelly*, 123 F.2d at 224 (“If the record on review contains not only all evidence which was clearly admissible, but also all evidence of doubtful admissibility, the court which is called upon to review the case can usually make an end of it, whereas if evidence was excluded which that court regards as having been admissible, a new trial or rehearing cannot be avoided.”))).

Accordingly, we deny Petitioner’s Motion to Exclude evidence.

VI. MOTION TO SUBMIT SUPPLEMENTAL INFORMATION

Petitioner also moves to submit as supplemental information Patent Owner’s responses to interrogatories in related litigation in the Western District of Texas. Pet. Mot. Suppl. Info. 1 (referring to *CliniComp Int’l, Inc. v. athenahealth, Inc.*, No. 1:18-cv-00425). The responses were served on “athenahealth, Inc.” *Id.* Athenahealth is the Petitioner in IPR2019-00926, which has been joined with the proceeding before us. *See Athenahealth, Inc. v. CliniComp International, Inc.*, IPR2019-00926, Paper 7, slip op. 5–7, (PTAB Oct. 1, 2019).

Petitioner asserts that Patent Owner's contentions in the IPR proceeding before us are "inconsistent with [Patent Owner's] positions regarding claim scope in [the] co-pending litigation against [Athenahealth], , and the interests of justice favor considering this information." Pet. Mot. Suppl. Info. 2. Patent Owner disputes whether there is any inconsistency. PO Resp. Mot. Suppl. Info. 2 ("Petitioners wrongly argue PO's statements are inconsistent.").

The issue presented by Petitioner's Motion relates to claim construction, a question of law. The parties have fully briefed and argued the issue of claim construction. We have provided a comprehensive claim construction analysis in this Decision. We deny the motion because Petitioner has not met its burden to establish that the information Petitioner seeks to admit is in the interests of justice. As we explain below, the interrogatory responses identify no substantively new evidence relevant to the issue of claim construction and are not inconsistent with arguments in the proceeding before us.

Under 37 CFR § 42.123(a)(1), a request for the authorization to file a motion to submit supplemental information must be made within one month of the date the trial is instituted. We instituted trial on March 5, 2019. *See* Dec. Inst. Thus, a § 123(a) request by Petitioner was due April 5, 2019. Petitioner filed its Motion on Nov. 1, 2019, well *after* the § 123(a) due date. Thus, § 123(a) does not apply to Petitioner's motion. Contrary to Petitioner's assertion (Pet. Mot. Suppl. Info. 2), the joinder of Athenahealth does not change the date the trial was instituted in this proceeding.

Thus, Petitioner's request to file a motion under 37 C.F.R. § 42.123 is considered a "late submission" under § 123(b). Section 123(b) states: "A party seeking to submit supplemental information more than one month after

the date the trial is instituted, . . . must show why the supplemental information reasonably could not have been obtained earlier, and that consideration of the supplemental information would be in the interests-of-justice.” As stated in our Consolidated Practice Guide, “[t]o the extent that a party wants such information to be considered by the Board, that party should point out specifically the statements and explain how those statements support or contradict a party’s proposed claim construction in the proceeding at issue.” Consolidated Trial Practice Guide (Nov. 2019) at 48.

We take no issue with the timing of Petitioner’s Motion.

As explained in Section V of this Decision, our general approach to evidentiary disputes is to have a complete record of the evidence to facilitate public access as well as appellate review. Thus, we authorized filing the supplemental evidence, pending our consideration of Petitioner’s Motion. *See* Paper 39. Petitioner filed the interrogatory responses as Ex. 1045.

Exhibit 1045 is an excerpt from Plaintiff Clincomp, Inc.’s [Patent Owner] Objections and Responses to Defendant Athenahealth’s First Set of Interrogatories (Nos. 1-14). *See* Ex. 1045. It includes pages 1, 7–9, and 20 of the submitted document. *Id.*

Having reviewed Interrogatory Response No. 4, to which we have been directed (*see* Pet. Mot. Suppl. Info. 1), we find no substantive inconsistency between the interrogatory response and the claim construction position advocated by Patent Owner in this IPR proceedings.

Petitioner’s allegations of an inconsistency focus on: (1) the “not duplicative” clause (*see, e.g.*, claim 1, Ex. 1001, 14:31–35); and (2) the terms “portion” and “partition.” Pet. Mot. Suppl. Info. 1–2.

Concerning the “not duplicative” phrase, Petitioner asserts:

Patent Owner contends that Evans does not disclose functions that are “not duplicative” because Evans’s “patient locator . . . generat[es] patient identifiers,” and so do legacy applications. (Paper 21 [PO Sur-reply] at 8-9 (citing Ex. 2005 ¶126); *see* Paper 13 [PO Resp.] at 36 (similar). *But see, e.g.*, Paper 1 [Pet.] at 37 (citing evidence of other functions).) However, in the litigation proceeding, Patent Owner contends that a “healthcare application” can be “not duplicative” even if it performs the same function as a legacy application, so long as the function is not performed in “the same way or to the same extent.”

Id. at 1. We have not been directed to any persuasive evidence that Patent Owner’s arguments in its Response and Sur-reply are inconsistent with its response to Interrogatory No. 4. As we have found and concluded in our analysis above, Evans *does* disclose a “not duplicative” healthcare application. The fact that Petitioner, and the Board, do not agree with Patent Owner’s merits arguments on this issue does not make those arguments “inconsistent.”

Concerning the “portion/partition” issue, Petitioner asserts “for infringement purposes, Patent Owner contends that a “portion” is just a “portion,” not a “partition.” Pet. Mot. Suppl. Info. 1–2. The ’647 patent uses the word “partition” and “portion” interchangeably. *See, e.g.*, Ex. 1001, 9:60–64 (“The clinical data repository is a database that is partitioned to provide a *database partition* for an individual enterprise as shown in block 211. The *database portion* may be configured as either a logical partition or a physical partition” (emphasis added)). Petitioner also uses these terms interchangeably. *See, e.g.*, Pet. 58 (“Johnson discloses at least two examples in which healthcare data for an independent facility is received, processed by an application, and stored in a *portion* of the database associated with that facility” (emphasis added)), *id.* at 60 (“A POSITA would understand the

central host database of Johnson is *partitioned* into multiple sub-databases” (emphasis added)).

Based on our analysis above, we determine that Ex. 1045 does not establish any inconsistency between the interrogatory responses and Patent Owner’s position in this IPR proceeding. Accordingly, we deny the Motion for Supplemental Information because Petitioner has not established that consideration of the supplemental information would be in the interests-of-justice. Exhibit 1045 will remain in the record to facilitate public access as well as appellate review.

VII. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner has shown by a preponderance of the evidence that claims 50–52 are not patentable based on Evans;

FURTHER ORDERED that Petitioner has shown by a preponderance of the evidence that claims 53 and 54 are not patentable based on Evans and Rai;

FURTHER ORDERED that Petitioner has shown by a preponderance of the evidence that claims 50–53, and 55 are not patentable based on Johnson and Evans.

FURTHER ORDERED that Petitioner has not shown by a preponderance of the evidence that claims 1–5, 10–13, and 15–25 are unpatentable based on Johnson and Evans;

FURTHER ORDERED that Petitioner has not shown by a preponderance of the evidence that claims 6–9, and 14 are unpatentable based on Johnson, Evans, and Rai;

FURTHER ORDERED that Petitioner has shown by a preponderance of evidence that claim 54 is not patentable based on Johnson, Evans, and Rai.

FURTHER ORDERED that Petitioner's Motion to Exclude is *denied*;
FURTHER ORDERED that Petitioner's Motion for Supplemental Information is *denied*; and

FURTHER ORDERED that this is a Final Written Decision under 35 U.S.C. § 318(a), and that parties to the proceeding seeking judicial review of the Decision under 35 U.S.C. § 319 must comply with the notice and service requirements of 37 C.F.R. § 90.2.

In summary:

Claims	35 U.S.C. §	Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
50–52	103	Evans	50–52	
53, 54	103	Evans, Rai	53, 54	
1–5, 10–13, 15–25, 50–53, 55	103	Evans, Johnson	50–53, 55	1–5, 10–13, 15–25
6–9, 14, 54	103	Evans, Johnson, Rai	54	6–9, 14
Overall Outcome			50–55	1–25

IPR2018-01634
Patent 6,665,647

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CERNER CORPORATION,
Petitioner,

v.

CLINICOMP INTERNATIONAL, INC.,
Patent Owner.

IPR2018-01634²³
Patent 6,665,647

Before WILLIAM V. SAINDON, BARRY L. GROSSMAN, and
CHRISTOPHER C. KENNEDY, *Administrative Patent Judges*.

SAINDON, *Administrative Patent Judge*, DISSENTING only as to the
Denial of Petitioner's Motion for Supplemental Information.

²³ IPR2019-00926 has been joined with this proceeding.

SAINDON, *Administrative Patent Judge*:

As noted above, my dissent is limited only to Petitioner's Motion for Supplemental Information. I fully join the decisions regarding the Final Written Decision and Petitioner's Motion to Exclude Evidence. However, I respectfully dissent from my colleague's decision to deny Petitioner's Motion for Supplemental Information.

In my view, we should grant the motion to enter and consider the evidence that Petitioner wishes to submit as supplemental information. *See* Ex. 1045 (Petitioner's proposed supplemental information). I agree with my colleagues that Petitioner is too late to seek relief under 37 C.F.R.

§ 42.123(a). However, under § 42.123(b), I believe Petitioner has shown that it is in the interests of justice to consider Exhibit 1045. The majority's analysis focuses on whether the information in Exhibit 1045 would affect our analysis. In my view, the interests of justice standard is not tested by whether we would have to modify our analysis on account of the information. Instead, we simply look to whether it is in the interests of justice to enter and consider the evidence in the first place. Here, I believe it is in the interests of justice to consider statements made by Patent Owner in the district court litigation as to the construction of certain claims at issue in this proceeding. That is, Petitioner's motion sufficiently establishes that the contents of Exhibit 1045 contain statements by Patent Owner directly on an issue argued by the parties and that is material to the outcome of this proceeding. Thus, in my view, Petitioner's motion establishes a threshold level of confidence that the information discussed in Exhibit 1045 would be useful, and also that the information is of a nature that *could* influence our

decision.²⁴ Whether the content of Exhibit 1045 ultimately would change our analysis is immaterial to deciding this motion, in my view.

I further would find that Petitioner meets the other requirement of § 42.123(b). Petitioner requested to file the motion on October 30, 2019. Only a few days prior did Petitioner become aware of the evidence (October 25, 2019). I would find this timing sufficient.

One may argue that there are further complications and that we should consider a different set of dates. I do not agree, because only Petitioner Cernier's timeframe is relevant for this motion, because it is the only petitioner able to file papers (as explained by the majority). In any event, Exhibit 1045 came from the joined Petitioner, athenahealth, and they knew of the material in Exhibit 1045 some months before October. However, this fact would not materially affect my analysis. Petitioner athenahealth was joined to this proceeding on October 1, 2019. Thus, that date would be the absolute earliest Petitioner Cernier could have learned of Exhibit 1045. I believe it is reasonable to expect some amount of time to coordinate the exchange of information between unrelated joined parties, and then additional time for review. Thus, even if we consider the relevant time period to have started on October 1, 2019, then it is not unreasonable under these specific circumstances, in my view, to request the motion on

²⁴ In my view, this is not entirely dissimilar to *Garmin* factor 1 used in our discovery analyses. *Garmin Intern'l, Inc. v. Cuozzo Speed Tech's LLC*, IPR2012-00001, Paper 26, 6–7 (PTAB Mar. 5, 2013) (precedential) (requiring a threshold level of evidence to show that the proposed discovery would provide *useful* information, i.e., “information favorable in substantive value to a contention”); *also compare* 37 C.F.R. § 42.123(b) (allowing supplemental information if in the “interests of justice”) *with* 37 C.F.R. § 42.51(b)(2) (allowing additional discovery under the same standard).

October 30. I do not see the timing here as providing any concerns about actual or attempted prejudice to Patent Owner.²⁵

Ultimately, whether we grant or deny the motion, I am in agreement with the majority that Exhibit 1045 does not contain information that would change our analysis, for the reasons they state above. However, to the extent other parties would use this decision to reflect the Board's views on motions for supplemental information, I offer a contrasting view. I would have granted Petitioner's Motion for Supplemental Information first and then considered the information for its persuasive value. Thus, I dissent from the majority's decision to deny the motion.

²⁵ In the event the nature of the supplemental information required us to solicit briefing, then we would have been able to do so, after entry and consideration of the information. Thus, timing of the various merits briefs in the proceeding are given some consideration, but are not in my view determinative (unlike, e.g., the timing of harder constraints such as a hearing date or a final written decision date).