

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS INC.,
Petitioner,

v.

PURE DATA SYSTEMS, LLC,
Patent Owner.

IPR2019-00484
Patent 5,999,947

Before SCOTT R. BOALICK, *Chief Administrative Patent Judge*,
KALYAN K. DESHPANDE, and KEVIN W. CHERRY,
Administrative Patent Judges.

DESHPANDE, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

Unified Patents Inc. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 6, 12, and 13 of U.S. Patent No. 5,999,947 (Ex. 1001, “the ’947 patent”). Paper 2 (“Pet.”). Pure Data Systems, LLC (“Patent Owner”) waived filing a preliminary response. Paper 5.

On August 1, 2019, we issued a Decision ordering that an *inter partes* review of claims 6, 12, and 13 of the ’947 patent “is hereby instituted . . . with respect to all grounds set forth in the Petition.” Paper 6 (“Dec.”), 14. After institution of *inter partes* review, Patent Owner filed a Response (Paper 10, “PO Resp.”). Petitioner filed a Reply (Paper 12, “Pet. Reply”) to Patent Owner’s Response. We granted Patent Owner’s request to be excused from participation in the oral hearing (*see* Paper 16), and Petitioner presented oral arguments on April 27, 2020. A transcript has been entered into the record. Paper 20 (“Tr.”).

The Board has jurisdiction under 35 U.S.C. § 6. In this Final Written Decision, after reviewing all relevant evidence and arguments, we determine that Petitioner has met its burden of showing, by a preponderance of the evidence, that claims 6, 12, and 13 of the ’947 patent are unpatentable.

B. Related Proceedings

Petitioner states that the ’947 patent is the subject of the following litigations: (1) *Pure Data Systems, LLC v. Electronic Arts Inc.*, No. 3-18-cv-05343 (N.D. Cal.) (terminated); (2) *Pure Data Systems, LLC v. Pandora Media, Inc.*, No. 1-18-cv-00771 (D. Del.); (3) *Pure Data Systems, LLC v. Spotify USA Inc.*, No. 1-18-cv-00772 (D. Del.); (4) *Pure Data Systems, LLC v. Electronic Arts Inc.*, No. 2-18-cv-01097 (C.D. Cal.) (transferred to N.D.

Cal.); (5) *Pure Data Systems, LLC v. Ubisoft, Inc.*, No. 3-18-cv-00852 (N.D. Cal.) (terminated); (6) *Pure Data Systems, LLC v. Valve Corp.*, No. 2-17-cv-01659 (W.D. Wash.) (terminated); (7) *Pure Data Systems, LLC v. Imgur, Inc.*, No. 1-17-cv-01585 (D. Del.) (terminated); (8) *Pure Data Systems, LLC v. Mercari, Inc.*, No. 1-17-cv-01586 (D. Del.) (terminated); (9) *Pure Data Systems, LLC v. Pinterest, Inc.*, No. 1-17-cv-01587 (D. Del.) (terminated); (10) *Pure Data Systems, LLC v. EnterpriseDB Corp.*, No. 1-17-cv-00876 (D. Del.) (terminated); (11) *Pure Data Systems, LLC v. USA Today, LLC*, No. 6-17-cv-00208 (E.D. Tex.) (terminated); (12) *Pure Data Systems, LLC v. CNN Interactive Group, Inc.*, No. 6-17-cv-00209 (E.D. Tex.) (terminated); (13) *Pure Data Systems, LLC v. CNET Networks, Inc.*, No. 6-17-cv-00210 (E.D. Tex.) (terminated); (14) *Pure Data Systems, LLC v. Fox News Network, LLC*, No. 6-17-cv-00211 (E.D. Tex.) (terminated); (15) *Xanthus Data Technologies, LLC v. LinkedIn Corp.*, No. 2-15-cv-00777 (E.D. Tex.) (terminated); and (16) *Xanthus Data Technologies, LLC v. Citrix Systems, Inc.*, No. 2-15-cv-00715 (E.D. Tex.) (terminated). Pet. 1–2.

C. The '947 Patent (Ex. 1001)

The '947 patent discloses a “system that allows changes made to an original database table found on a server computer to be reflected in client copies of the database table.” Ex. 1001, Code (57); *see id.* at 2:63–67. That is, a client stores a local copy of the original database table so that the client can access a copy of the database table when the client cannot communicate with the server computer storing the original database table. *Id.* at 1:46–53. Further, the original database table stored by the server is “continuously accessed and updated by other programs” and is “in a continuously changing state.” *Id.* at 6:42–48. As such, the client’s copy of the database table must

be updated so that the client has the most current version of the server's database table. *Id.* at 2:63–67.

To update the client's version of the database table to match the server's current database table, the server transmits instructions to the client, which indicate differences between the client's version of the database table and the server's current database table. *Id.* at 13:50–54. However, because “[t]here are a number of different types or varieties of database engines that can be used by a client,” the client must “receive database table differences . . . in the appropriate format for the database engine” used by the client. *Id.* at 12:45–50. As such, the server must provide database table update instructions specific to the client's database engine. The server accomplishes this by storing changes to the server's database, i.e., “database table differences,” in a generic format. *Id.* at 10:57–59; *see id.* at Fig. 3A–3B. When the server provides instructions to the client to update the client's database, the server “translate[s] . . . the differences taken from the updates . . . into a format or instructions understood by the type of database engine running on the client.” *Id.* at 13:12–17.

D. Illustrative Claims

Petitioner challenges claims 6, 12, and 13 of the '947 patent. Pet. 15–51. Claim 6 is illustrative of the challenged claims and is reproduced below:

6. A method of distributing database differences corresponding to database change events made to a database table located on a server computer to client copies of the database table located on one or more client computers, each client computer capable of having different database engines comprising the steps of:

storing database differences at the server computer in a generic format;

receiving from a client computer a request for all database differences needed to make a client copy of the database table current;

translating the differences from the generic format into instructions having a specific format compatible with the type of database engine associated with the client copy of the database table; and

transmitting the instructions to the client computer for execution on the client database engine to make the client copy of the database table current.

Ex. 1001, 15:29–46.

E. The Asserted Grounds of Unpatentability

The information presented in the Petition sets forth proposed grounds of unpatentability of claims 6, 12, and 13 of the '947 patent under 35 U.S.C. § 103(a) as follows (*see* Pet. 15–51):¹

Claims Challenged	35 U.S.C. §²	Reference(s)/Basis
6, 12, 13	103(a)	Olson, ³ Bauer ⁴

¹ Petitioner supports its challenge with the Declaration of Philip Greenspun, Ph.D. Ex. 1003.

² The Leahy-Smith America Invents Act (“AIA”) included a revision to 35 U.S.C. § 103 that became effective on March 16, 2013. Because the '947 patent issued from an application filed before March 16, 2013, we apply the pre-AIA version of the statutory basis for unpatentability.

³ U.S. Pat. No. 5,995,980, issued Nov. 30, 1999 (“Olsen,” Ex. 1005).

⁴ U.S. Pat. No. 5,870,765, issued Feb. 9, 1999 (“Bauer,” Ex. 1006).

II. ANALYSIS

A. *Level of Ordinary Skill in the Art*

In determining the level of ordinary skill in the art for a challenged patent, we look to “1) the types of problems encountered in the art; 2) the prior art solutions to those problems; 3) the rapidity with which innovations are made; 4) the sophistication of the technology; and 5) the educational level of active workers in the field.” *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 666–667 (Fed. Cir. 2000). “Not all such factors may be present in every case, and one or more of them may predominate.” *Id.*

Petitioner’s declarant, Dr. Greenspun, testifies that a person of ordinary skill in the art at the time of the ’947 patent would have had either “a bachelor’s degree in computer science or an equivalent field (or equivalent industry experience), and one year of work experience with designing and implementing database management systems (DBMS), including a distributed DBMS” or “sufficient training or work experience in DBMS” as a substitute for a formal degree.” Pet. 9 (citing Ex. 1003 ¶¶ 49–60). Patent Owner does not dispute Petitioner’s proposed level of ordinary skill in the art. *See* PO Resp., *passim*.

Based on the full record developed during trial, including our review of the ’947 patent and the types of problems and prior art solutions described in the ’947 patent, as well as the sophistication of the technology described in the ’947 patent, we agree with Petitioner and conclude that a person of ordinary skill in the art would have had (1) a bachelor’s degree in computer science or an equivalent field (or equivalent industry experience), and one year of work experience with designing and implementing database management systems (DBMS), including a distributed DBMS, or (2)

sufficient training or work experience in DBMS as a substitute for a formal degree. We apply that level of skill for purposes of this Decision.

B. Claim Construction

The Petition in this case was filed on December 31, 2018. Under recent changes to our rules—applicable to petitions filed after November 13, 2018—we apply the claim construction standard used to construe the claims in a civil action under 35 U.S.C. § 282(b) articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *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, 51358 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018) (now codified at 37 C.F.R. § 42.100(b) (2019)). We determine that the following terms and limitations require construction.

1. “Generic Format” and “Specific Format”

Independent claim 6 recites “generic format” and “specific format.” We preliminarily construed the term “generic format” to mean “a source format for translation” and the term “specific format” to mean “a target format of translation.” Dec. 6–7; *see* Pet. 13–14.

Patent Owner argues that a “generic format” should be construed to mean a format that is “of, applied to, or referring to a whole kind, class, or group” and is “‘inclusive or general,’ for example, ‘of or characteristic of a genus.’” PO Resp. 8, 10–11 (citing Ex. 2001, 3). Patent Owner contends that this construction is consistent with the ’947 patent specification. *Id.* at 8–10 (citing Ex. 1001, Figs. 3A, 3B). Patent Owner also argues that a “specific format” should be construed to mean a format that is “limiting or limited; specifying or specified precise, definite; explicit” (PO Resp. 11–12

(citing Ex. 2001, 4)) or one that “is a species of the ‘generic’ format” (*id.* at 12). Patent Owner argues that the prosecution history and ’947 patent specification do not support storing database differences in any source format and translating them into instructions in any target format. *Id.* at 4–8.

In response, Petitioner argues that the constructions proposed in the Petition are consistent with the intrinsic record, namely the surrounding claim language, specification, and prosecution history. Pet. Reply 1–3 (citing Ex. 1003 ¶¶ 57–60). In particular, Petitioner contends that claim amendments in the prosecution history support Petitioner’s construction. *Id.* at 4–6. Petitioner asserts that Patent Owner’s dictionary definitions are inconsistent with the intrinsic record, and proposes alternative dictionary definitions that “correspond more closely with the ’947 Patent specification as well as the claim elements and are also consistent with Petitioner’s proposed constructions.” *Id.* at 6–9 (citing Ex. 1016 ¶ 14). Petitioner proposes that “generic” be construed to mean “having no particularly distinctive quality or application” and “specific” be construed to mean “restricted to a particular individual, situation, relation, or effect.”⁵ *Id.* at 7 (citing Ex. 1015, 5–6; Ex. 1016 ¶ 14).

We construe the term “generic format” to mean “a format having no particularly distinctive quality or application” and the term “specific format” to mean “a format restricted to a particular individual, situation, relation, or effect.” Pet. Reply. 7 (citing Ex. 1015, 5–6; Ex. 1016 ¶ 14). Although we

⁵ Patent Owner had notice of Petitioner’s claim construction arguments in Petitioner’s Reply and had opportunities to respond by submitting arguments in a sur-reply and at the oral hearing. *See supra* § I.A; Paper 7, 7; Paper 16, 2; *see generally* Tr. Patent Owner, however, declined to submit a sur-reply and to participate in the oral hearing.

deviate from our preliminary construction, we find that our claim constructions, based on the entirety of the record, are consistent with our preliminary construction, the plain and ordinary meaning of the terms, and the '947 patent specification. Specifically, these constructions are consistent with the plain and ordinary meaning of the terms “generic” and “specific” and correspond most closely with the '947 patent specification. Ex. 1015, 5–6; Ex. 1016 ¶ 14. In particular, the '947 patent allows for distributing database updates between server and client systems that use different database engines or formats. Ex. 1001, 2:35–59. The '947 patent specification describes updates being stored “in a generic format so that they may be translated to specific database engine instructions corresponding to the actual type of database engine residing on a particular client.” Ex. 1001, 3:43–46; *see id.* at 8:23–29, 8:59–64, 10:57–58. The '947 patent specification describes using “an arbitrary generic format . . . chosen for illustration purposes only” but that “those skilled in the art will appreciate that many different formats or conventions may be chosen.” *Id.* at 9:28–32. The '947 patent’s description of “an arbitrary generic format” that may have “many different formats or conventions” corresponds to a format having no particularly distinctive quality or application. Additionally, the '947 patent’s description of “specific database engine instructions corresponding to the actual type of database engine residing on a particular client” corresponds to a format restricted to a particular individual, situation, relation, or effect.

We agree with Patent Owner that the '947 patent specification and prosecution history do not support storing database differences in any source format and translating them into instructions in any target format. PO Resp. 4–8. We are not, however, persuaded by Patent Owner’s proposed

dictionary definitions for the terms “generic” and “specific.” *Id.* In particular, we are not persuaded that the ’947 patent specification’s discussion of Figures 3A and 3B are the only representations of a “generic format.” *See* PO Resp. 8–10 (citing Ex. 1001, Fig. 2A, Fig. 2B, Fig. 3A, Fig. 3B, 8:59–64, 9:28–29, 9:32–34, 10:41–56). Further, although Patent Owner cites to a dictionary to support its proposed constructions (Ex. 2001), Patent Owner provides no evidence or explanation of why Patent Owner’s proposed definitions are supported by the ’947 patent specification. *See generally* PO Resp. 4–13.

Accordingly, we construe the term “generic format” to mean “a format having no particularly distinctive quality or application” and the term “specific format” to mean “a format restricted to a particular individual, situation, relation, or effect.”

2. *Remaining Terms and Limitations*

We determine that no other express claim construction analysis of any claim term is necessary. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (holding that only terms in controversy must be construed and only to the extent necessary to resolve the controversy) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

C. *Obviousness of Claims 6, 12, and 13 over Olson and Bauer*

Petitioner contends that claims 6, 12, and 13 of the ’947 patent are unpatentable under 35 U.S.C. § 103 as obvious over Olson and Bauer. Pet. 15–51. For the reasons discussed below, we determine that Petitioner has demonstrated, by a preponderance of the evidence, that claims 6, 12, and

13 of the '947 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Olson and Bauer.

1. Olson (Ex. 1005)

Olsen is directed to a database system in which a “central computer 11” stores a “source database 18” and, further, “replicas of source database 18” are stored as “local target databases 22₁–22_n” on “user clients 24₁–24_n.” Ex. 1005, 5:39–44, 5:55–56, 5:61–63 (bolding omitted). Further, Olson’s system updates the user client’s local target databases with changes to the central computer’s source database. *Id.* at 3:13–15, 5:33–35.

To update the clients’ local target databases, the central computer initially “record[s] in log 20” the “[d]ata changes or updates” to its source database. *Id.* at 5:57–60 (bolding omitted). Those logged data changes to the source database are used by “update system 32 . . . to update [the clients’ local] target databases 22₁–22_n with record changes or updates in source database 18.” *Id.* at 6:19–21, 28–34 (bolding omitted). In particular, those logged data changes are used to create “update packages 30₁–30_n, respectively,” for each client’s local target database. *Id.* at 6:1–3 (bolding omitted). Furthermore, “if a variety of target formats are serviced,” Olsen’s system “will construct an update package in each target format,” e.g., respective “IBM© and SYBASE© format update packages” for “IBM©, and SYBASE© databases.” *Id.* at 7:19–36; *see id.* Fig. 2. Then, “update packages 30₁–30_n,” which “are in target native physical format[,] . . . can be applied directly to the physical storage of the respective [local] target databases [22₁–22_n]” to update those databases. *Id.* at 9:35–40 (bolding omitted).

2. *Bauer (Ex. 1006)*

Bauer is directed to a “database synchronizer . . . used to synchronize the data in [a] central database with the data [in local client databases] on each client’s computer.” Ex. 1006, 2:2–7. Bauer discloses that “[c]lient database synchronization is initiated by the destination client node” when “a table refresh request message is transmitted to the source server node 10” by the client node. *Id.* at 11:29–32 (bolding omitted); *see id.* at Fig. 6A.

3. *Analysis*

a. *Petitioner’s Contentions*

The preamble of claim 6 recites

A method of distributing database differences corresponding to database change events made to a database table located on a server computer to client copies of the database table located on one or more client computers, each client computer capable of having different database engines. . . .

Ex. 1001, 15:29–33. Petitioner contends that to the extent the preamble is limiting, Olson discloses these limitations. Pet. 22–29 (citing Ex. 1003 ¶¶ 81–89). Petitioner argues that Olson discloses central computer 11, source database 18, user clients 24₁–24_n, target databases 22₁–22_n, and update system 32. *Id.* at 23–25 (citing Ex. 1005, Fig. 1, 5:61–63, 6:29–34, 7:57–59, 8:29–31; Ex. 1003 ¶¶ 82–83). Petitioner contends that Olson discloses that “[c]omplete or fragmentary replicas of source database 18 are provided to local target databases 22₁–22_n” and “update system 32 is employed to update target databases 22₁–22_n with record changes or updates entered in source database 18.” *Id.* at 24–25 (bolding omitted) (quoting Ex. 1005, 5:61–63, 6:19–24) (citing Ex. 1003 ¶¶ 83, 84). Petitioner further argues that “each apply machine 31 instance of *Olson* in a client computer,

corresponds to a ‘*database engine*’” (*id.* at 27) (citing Ex. 1003 ¶ 86) and “[e]ach of update packages 30₁–30_n is adapted and created by update system 32 for direct application through [an] apply machine 31 to the corresponding target database 22₁–22_n” (*id.* at 47) (bolding omitted) (quoting Ex. 1005, 6:1–6) (citing Ex. 1003 ¶ 119).

Claim 6 further recites “storing database differences at the server computer in a generic format.” Ex. 1001, 15:35–36. Petitioner contends that Olson discloses this limitation. Pet. 30–35. Petitioner argues that Olson discloses capture machine 48, which is part of the server computer, “for capturing changes made to the first database and storing in the transaction record queue, records representing data changes made to the first database.” *Id.* at 30 (bolding omitted) (quoting Ex. 1005, 10:6–19) (citing Ex. 1005, Figs. 1, 2, 8:25–29; Ex. 1003 ¶ 91). Petitioner further argues that Olson discloses the creation of different formatted packages from the same update batch. *Id.* at 33–34 (citing Ex. 1005, 7:30–36; Ex. 1003 ¶ 96). Olson discloses that system 10 may service targets of various formats, and BUILD machine 42 constructs of more than one update package from the extract update batches 39₁–39_n for the extract data set queues 40₁–40_n such that BUILD machine 42 will construct an update package for each target format from extract update batches 39₁–39_n. *Id.* (citing Ex. 1005, 7:30–36); Ex. 1005, 7:19–30.

Claim 6 also recites “receiving from a client computer a request for all database differences needed to make a client copy of the database table current.” Ex. 1001, 15:37–39. Petitioner contends that the combination of Olson and Bauer teaches this limitation. Pet. 35–40. Petitioner argues that Bauer discloses a server/client configuration, where the step of “refreshing

the client” involves synchronizing the client database by transmitting a table refresh request message to the server. *Id.* at 35–36 (citing Ex. 1006, Figs. 6A, 6B, 11:23–32; Ex. 1003 ¶ 102). Petitioner asserts that the table refresh request is received by the server, and the server determines the data to return to the client by querying the server update log table. *Id.* at 36–38 (citing Ex. 1006, 11:33–35; Ex. 1003 ¶¶ 102, 103). According to Petitioner, Bauer further discloses that the client database is updated “with the refresh data to bring the two databases into synchronization.” *Id.* at 38 (bolding omitted) (quoting Ex. 1006, 2:65–67) (citing Ex. 1003 ¶ 103). Petitioner argues that a person with ordinary skill in the art would have understood that the refresh request in Bauer corresponds to “a request for all database differences needed to make a client copy of the database table current.” *Id.* (citing Ex. 1006, 2:65–67; Ex. 1003 ¶ 103).

Claim 6 additionally recites “translating the differences from the generic format into instructions having a specific format compatible with the type of database engine associated with the client copy of the database table.” Ex. 1001, 15:40–43. Petitioner contends that Olson discloses this limitation. Pet. 40–45. Petitioner argues that Olson discloses that BUILD machine 42 of update system 32 translates the differences from the generic format (extract update batches 39₁–39_n for the extract data set queues 40₁–40_n) into instructions having a specific format compatible with the type of database engine associated with the client database. *Id.* at 41–42 (citing Ex. 1005, Fig. 2, 7:20–36; Ex. 1003 ¶¶ 109–111). According to Petitioner, Olson discloses that “in step 106 performed by BUILD machine 42, ‘the sequence of updates are converted to the physical format of the target.’” *Id.*

at 43 (bolding omitted) (quoting Ex. 1005, 9:20–21) (citing Ex. 1005, Fig. 6; Ex. 1003 ¶ 112).

Claim 6 further recites “transmitting the instructions to the client computer for execution on the client database engine to make the client copy of the database table current.” Ex. 1001, 15:44–46. Petitioner contends that Olson discloses this limitation. Pet. 45–48. Petitioner argues that Olson discloses that an update package is transmitted to the client computer, and “apply machine 31 applies ‘the update package to the target data compilation to make it consistent with the source data compilation.’” *Id.* at 45–47 (bolding omitted) (quoting Ex. 1005, 10:62–64) (citing Ex. 1005, Fig. 1, 6:1–6, 9:35–37; Ex. 1003 ¶¶ 117–121).

Petitioner asserts a person of ordinary skill in the art would have been motivated to combine the client refresh request teachings of *Bauer* with *Olson*’s teachings of a database update system for client database synchronization with a server database, and provide the obvious, beneficial, and predictable results of a high-performance database update system that reduces system update burdens while increasing update flexibility.

Pet. 17 (citing Ex. 1003 ¶¶ 73–80); *see* Pet. 38–40. In particular, Petitioner asserts “*Olson* and *Bauer* are analogous prior art, and are in the same field of endeavor pertaining to database update systems for a heterogeneous distributed database management system.” *Id.* at 17–18 (citations omitted). Petitioner further asserts “enhancing client database synchronization with a server database for a heterogeneous distributed database management system is a need shared by *Olson* and *Bauer*, and provides at least one reason to combine the respective teachings.” *Id.* at 18–19 (citing Ex. 1003 ¶ 76). Still further, Petitioner asserts a skilled artisan “looking to improve

upon the heterogeneous distributed database management system of *Olson* would typically refer to references describing other similar systems to get a sense of how the industry approached and solved problems associated with such systems.” *Id.* at 19 (citing Ex. 1003 ¶ 77). Even further, Petitioner asserts “*Olson*’s expressed desire for ‘increasing update flexibility for remote processing sites’ would have motivated a POSITA⁶ to incorporate *Bauer*’s teachings of a table refresh request from a client computer for initiating client database synchronization in the system of *Olson* to obtain the benefits of improved update flexibility.” *Id.* at 20–21 (citing Ex. 1003 ¶¶ 78–79). Additionally, Petitioner asserts “combining the teachings of *Bauer* with the system of *Olson* would have produced operable results that are predictable.” *Id.* at 21–22 (citing Ex. 1003 ¶ 80).

Notwithstanding Patent Owner’s arguments, which we address below, we are persuaded by Petitioner that the combination of Olson and Bauer discloses the limitations of claim 6, and a person with ordinary skill in the art would have combined Olson with Bauer. Olson discloses central computer 11 with source database 18, user clients 24₁–24_n with target databases 22₁–22_n, and update system 32. Ex. 1005, Fig. 1, 5:55–63, 6:1–6. Complete or partial replicas of source database 18 may be provided to target databases 22₁–22_n of user clients 24₁–24_n. *Id.* at Fig. 1, 5:55–63. Update system 32 updates target databases 22₁–22_n with record changes or updates in source database 18. *Id.* at 6:19–24. In particular, update system 32 includes a capture machine for capturing changes made to a database and storing records representing data changes in a transaction record queue. *Id.*

⁶ Person of Ordinary Skill in the Art (“POSITA”).

at Figs. 1, 2, 6:19–39, 10:6–19. Updates are stored as extract update batches 39₁–39_n in extract data set queues 40₁–40_n. *Id.* at Fig. 2, 6:40–67. BUILD machine 42 converts the update packages into “the physical format of the particular target database to create a single transaction update package adapted to the physical formatting of the respective target database.” *Id.* at 7:7–11. Specifically, BUILD machine 42 constructs update packages 30₁–30_n from extract update batches 39₁–39_n in extra data set queues 40₁–40_n. *Id.* at Fig. 2, 7:19–23. After the update system 32 creates the update packages 30₁–30_n, apply machine 31 directly applies the update packages 30₁–30_n to corresponding target databases 22₁–22_n. *Id.* at 6:3–6, 9:35–37. Accordingly, we are persuaded by Petitioner that Olson discloses the recited method of distributing database differences by storing database differences at a server computer in a generic format, translating the differences from the generic format into instructions with a specific format, and transmitting the instructions to a client computer to update a database copy stored in the client computer.

We are also persuaded by Petitioner that Bauer discloses a method of receiving a request for database differences from a client computer. Specifically, Bauer discloses “[c]lient database synchronization” that is initiated by a destination client transmitting a table refresh request message to a server and the server receiving the table refresh request message. Ex. 1006, 11:23–33, Figs. 6A, 6B. Therefore, Petitioner’s arguments are supported by the record, including the testimony of Dr. Greenspun, and we find them persuasive. Accordingly, we are persuaded by Petitioner that a person with ordinary skill in the art would have been motivated to combine Olson and Bauer for the reasons discussed above, including to reducing

“system update burdens while increasing update flexibility.” *See* Pet. 17–22, 38–40; Ex. 1003 ¶¶ 73–80.

b. Patent Owner’s Arguments

Patent Owner argues that Olson in view of Bauer does not disclose the “generic format” and “specific format” recited in claim 6 under Patent Owner’s proffered claim constructions. PO Resp. 10–13. In response, Petitioner argues that Olson discloses the recited “generic format” and “specific format” under both Petitioner and Patent Owner’s proposed constructions. Pet. Reply 9–12. Petitioner relies on Olson’s extract update batches 39₁–39_n as the “generic format” and Olson’s update packages 30₁–30_n, 30_{1IB}, and 30_{1SY} as the “specific format.” *Id.* at 9–10.

We agree with Petitioner that Olson discloses the recited “generic format” and “specific format.” As discussed above, we construe the term “generic format” to mean “a format having no particularly distinctive quality or application” and the term “specific format” to mean “a format restricted to a particular individual, situation, relation, or effect.” *See supra* § II.B.1. Olson discloses “extract update batches 39₁–39_n that correspond to channels of interest.” Ex. 1005, 6:50–56. In Olson, BUILD machine 42 uses extract update batches 39₁–39_n to construct update packages 30₁–30_n, which are formatted to particular databases. Ex. 1005, 7:7–36; Ex. 1003 ¶ 68. For example, extract update batch 39₁ may be used to generate update packages 30_{1IB} and 30_{1SY}, corresponding to IBM© and SYBASE© format update packages. Ex. 1005, Fig. 2, 7:19–36. Because extract update batches 39₁–39_n are not associated with any particular physical format, extract update batches 39₁–39_n are in a format having no particularly distinctive quality or application. Pet. Reply 10. Because update packages 30₁–30_n are formatted

to particular databases, e.g., update packages 30_{1IB} and 30_{1SY} corresponding to IBM© and SYBASE© format update packages, respectively, the update packages 30₁–30_n are each formats restricted to a particular database engine. *Id.*

We also, however, further agree with Petitioner that Olson discloses a “generic format” and “specific format” under Patent Owner’s proffered claim constructions. Patent Owner construes “generic format” as a format that is “of, applied to, or referring to a whole kind, class, or group” and is “‘inclusive or general,’ for example, ‘of or characteristic of a genus.’” PO Resp. 8, 10–11 (citing Ex. 2001, 3); *see supra* § II.B.1. Olson discloses that extract update batches 39₁–39_n are in a format that applies to the entire group of extract update batches and are inclusive of all potential formats that the extract update batches are converted to. Ex. 1005, 7:19–36; Ex. 1016 ¶ 17. Accordingly, we agree with Petitioner that Olson discloses a “generic format” as construed by Patent Owner.

Patent Owner construes “specific format” as a format that is “limiting or limited; specifying or specified; precise, definite; explicit” or one that “is a species of the ‘generic’ format.” PO Resp. 11–12; *see supra* § II.B.2. Olson discloses that update packages 30₁–30_n are formatted to particular databases. Ex. 1005, 7:7–36. First, update packages 30₁–30_n are each limited to the particular format of the database being used. For example, update package 30_{1IB} is limited to an IBM© format and 30_{1SY} is limited to a SYBASE© format. Ex. 1005, 7:19–36; Ex. 1016 ¶ 18. Second, update packages 30₁–30_n are a species of generic extract update batch 39₁ because extract update batch 39₁ is inclusive of each of the formats into which it needs to be translated. Ex. 1005, 7:19–36; Ex. 1016 ¶ 18. Accordingly, we

agree with Petitioner that Olson discloses a “specific format” as construed by Patent Owner.

For the foregoing reasons, we are persuaded that Petitioner has shown by a preponderance of the evidence that claims 6, 12, and 13 of the ’947 patent are unpatentable as obvious over the combination of Olson and Bauer.

III. CONCLUSION

Based on the information presented, we conclude that Petitioner has shown, by a preponderance of the evidence, that claims 6, 12, and 13 of the ’947 patent are unpatentable.

In summary:

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
6, 12, 13	103	Olson, Bauer	6, 12, 13	

IV. ORDER

After due consideration of the record before us, and for the foregoing reasons, it is:

ORDERED that claims 6, 12, and 13 of the ’947 patent are held unpatentable; and

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

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