

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CHERWELL SOFTWARE, LLC,
Petitioner,

v.

BMC SOFTWARE, INC.,
Patent Owner.

Case IPR2018-00980
Patent 9,363,252 B2

Before JEAN R. HOMERE, JUSTIN T. ARBES,
and JOHN A. HUDALLA, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314(a)

I. INTRODUCTION

Cherwell Software, LLC (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–20 (“the challenged claims”) of U.S. Patent No. 9,363,252 B2 (Ex. 1001, “the ’252 patent”) pursuant to 35 U.S.C. § 311(a). Paper 1 (“Pet.”). Petitioner filed a Declaration of Jon B. Weissman, Ph.D. (Ex. 1004) with its Petition. BMC Software, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 8, “Prelim. Resp.”) pursuant to 35 U.S.C. § 313. Pursuant to 37 C.F.R. § 42.4(a), we have the authority to determine whether to institute review.

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the petition “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” For the reasons expressed below, we determine that, on this record, Petitioner has not established a reasonable likelihood that it would prevail with respect to at least one of the challenged claims. Accordingly, we do not institute an *inter partes* review as to the challenged claims on the ground of unpatentability presented.

A. Related Matters

The parties indicate that the ’252 patent is involved in *BMC Software, Inc. v. Cherwell Software, LLC*, Civil Action No. 17-cv-03127-STV (D. Col.). Pet. 2; Paper 6, 1. Petitioner has also challenged the ’252 patent with an additional petition in IPR2018-00979. Pet. 3. Further, Petitioner has challenged claims 1–20 of U.S. Patent No. 8,832,652 B2 (“the

'652 patent"), of which the '252 patent is a continuation, in IPR2018-00977 and IPR2018-00978. Pet. 3.

B. The '252 Patent

The '252 patent relates to a method and system for customizing software applications in a shared computer environment to meet the unique needs of authorized individuals and groups within an organization so as to independently preserve users' customizations across various software upgrades. Ex. 1001, Abstract, 1:17–20, 3:39–45. In particular, as shown in Figure 2 below, the '252 patent describes overlaying base application objects 130, 140, 150 of application 100 with customized objects (overlaid objects). *Id.* at 4:14–22, 5:41–50, Fig. 2. Overlaid object 200 specifies an alteration to some component of application 100 so as to permit users 110, 120 to use overlaid object 200 in lieu of base application object 130 when executing application 100. *Id.* at

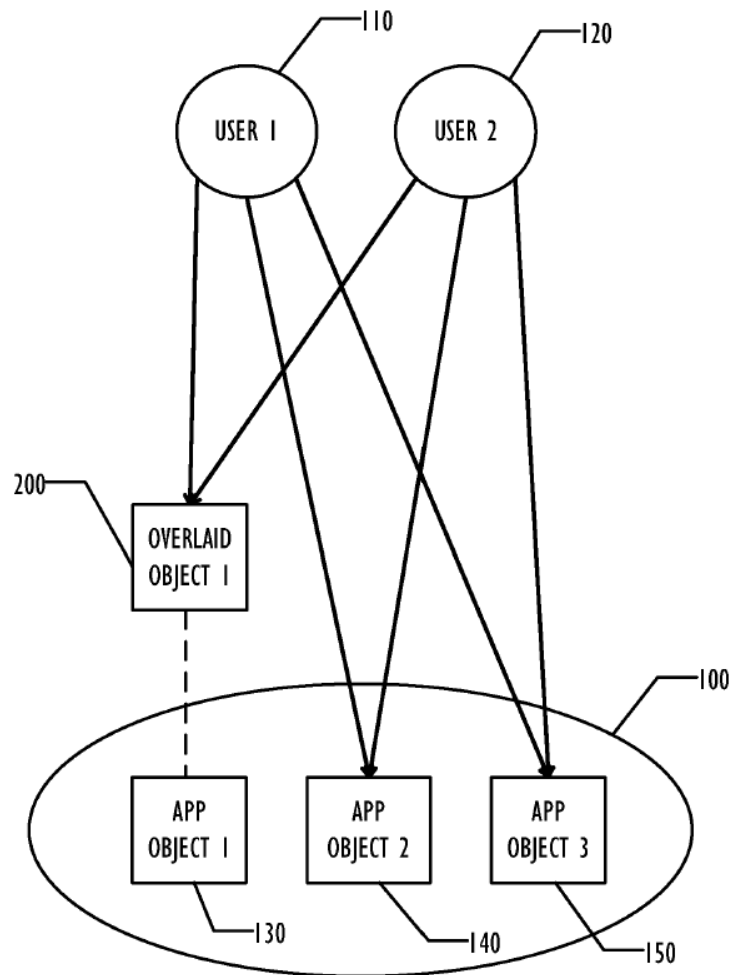


Figure 2, reproduced above, depicts application 100 employing overlaid object 200 to replace base object 130.

The '252 patent also describes, as shown in Figure 6 below, using preset bundles of overlaid objects 610, 660 as overlay groups 600, 650 stacked over each other or in parallel with each overlay group 600, 650

being independently modifiable, and each group 600, 650 having its own associated permissions or security controls so as to determine which overlaid objects 610, 660 users 110, 120 in each of permission groups X, Y are allowed to access when configuring or executing an application. *Id.* at 8:1–24.

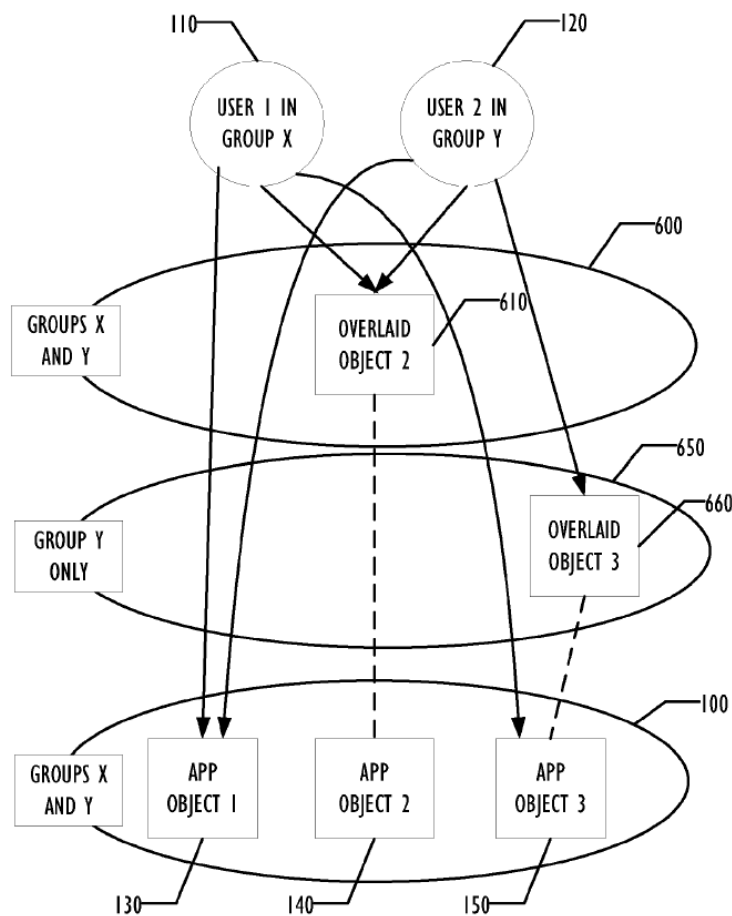


Figure 6, reproduced above, depicts a diagram of overlay groups of objects defining access control and permissions assigned to users.

C. Illustrative Claim

Of the challenged claims, claims 1, 11, and 17 are independent. Claim 1 is illustrative and is reproduced below with disputed limitations emphasized:

1. A method, comprising:

generating a software application in one of an interpreted computer environment and a compiled computer environment, wherein the generating of the software application includes,

associating at least one first overlaid object with a first overlay group, the at least one overlaid object having a corresponding base object of the software application, the at least one overlaid object being configured to allow the application of a change to the base object while preserving customizations associated with the at least one overlaid object,

assigning a first permission to the first overlay group, determining a user authorization associated with use of the first overlay group based on the first permission, and

configuring the software application to execute using the at least one first overlaid object and the corresponding base object upon determining the user authorization to use the first overlay group.

Ex. 1001, 12:7–26.

D. Asserted Ground of Unpatentability

Petitioner asserts that claims 1–20 are unpatentable under § 103(a)¹ as obvious over Leung.² Pet. 13–63.

II. DISCUSSION

A. Claim Construction

In an *inter partes* review, a claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. 37 C.F.R. § 42.100(b). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms or phrases must be set forth “with reasonable clarity, deliberateness, and precision.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

¹ Because the claims at issue have an effective filing date prior to March 16, 2013, the effective date of the applicable provisions of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), we apply the pre-AIA version of 35 U.S.C. §§ 102 and 103 in this Decision.

² Leung et al. (US 7,734,999 B2, filed Jan. 3, 2005, iss. June 8, 2010) (“Leung”) (Ex. 1003).

Petitioner proposes constructions for claim terms (1) “object,” (2) “overlaid object,” and (3) “dictionary.” Pet. 10–13. Patent Owner characterizes the proposed claim constructions as being “irrelevant” to the merits of the present challenge. Prelim. Resp. 7. Further, Patent Owner disputes Petitioner’s proposed claim constructions as unduly narrow, but declines to offer alternative claim constructions and does not base any of the arguments in its Preliminary Response on its construction of the claims. *Id.* at 10–16. We conclude that no claim interpretation is necessary to determine whether to institute a trial in this proceeding. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“Because we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy,’ we need not construe [a particular claim limitation] where the construction is not ‘material to the . . . dispute.’” (citations omitted)).

B. Level of Ordinary Skill in the Art

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). In that regard, Petitioner’s Declarant, Dr. Weissman, testifies that a person with ordinary skill in the art at the time of the invention “would have had a bachelor’s degree in computer science or computer engineering, or in a related field, and approximately two [to] three

years of experience in industry with respect to software design and computer systems.” Ex. 1004 ¶ 34. Further, Petitioner contends that the level of ordinary skill could have varied somewhat so as to allow industry experience and education to compensate for each other. Pet. 9–10. Patent Owner does not proffer a suggested level of skill for the ordinary artisan.

On this record, we observe that Petitioner’s undisputed assessment of a person of ordinary skill in the art appears to be consistent with the level of ordinary skill in the art at the time of the invention as reflected in the prior art in the instant proceeding. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). Therefore, for purposes of this Decision, we adopt Petitioner’s assessment.

C. Obviousness over Leung

Petitioner asserts that claims 1–20 are unpatentable under 35 U.S.C. § 103(a) as obvious over Leung. Pet. 13–63. Patent Owner opposes. Prelim. Resp. 16–32.

Based on the evidence in this record, we determine that Petitioner has not established a reasonable likelihood of prevailing on its asserted ground of unpatentability. In our discussion below, we address the parties’ contentions in turn.

1. Principles of Law

A claim is unpatentable for obviousness if, to one of ordinary skill in the pertinent art, “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.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)). The question of obviousness is resolved on the basis of underlying factual determinations, including “the scope and content of the prior art”; “differences between the prior art and the claims at issue”; and “the level of ordinary skill in the pertinent art.”³ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

A patent claim “is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. An obviousness determination requires finding “both ‘that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.’” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367–68 (Fed. Cir. 2016) (citation omitted); *see KSR*, 550 U.S. at 418 (for an obviousness analysis, “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does”).

³ Additionally, secondary considerations, such as “commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.” *Graham*, 383 U.S. at 17–18. Patent Owner, however, has not presented any such evidence.

A petitioner's assertion of obviousness "cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on [the] evidence of record, to support the legal conclusion of obviousness." *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016) (citing *KSR*, 550 U.S. at 418).

We analyze Petitioner's obviousness ground with the principles identified above in mind.

2. Overview of Leung

Leung describes a system for "configuring a user formset for display on a user interface of a client computer." Ex. 1003, Abstract. According to Leung, "forms implemented on a graphical user interface of a user computer [had] to be coded for operation by a variety of different users" by hand, such that "any changes in one [role-specific Formset] require[d] that all the other similar Formsets be examined and also changed if necessary." *Id.* at 1:6–25. Leung avoids that problem by applying overlays to a master formset to create a customized formset. *Id.* at 1:25–2:15.

Figure 1 of Leung is reproduced below.

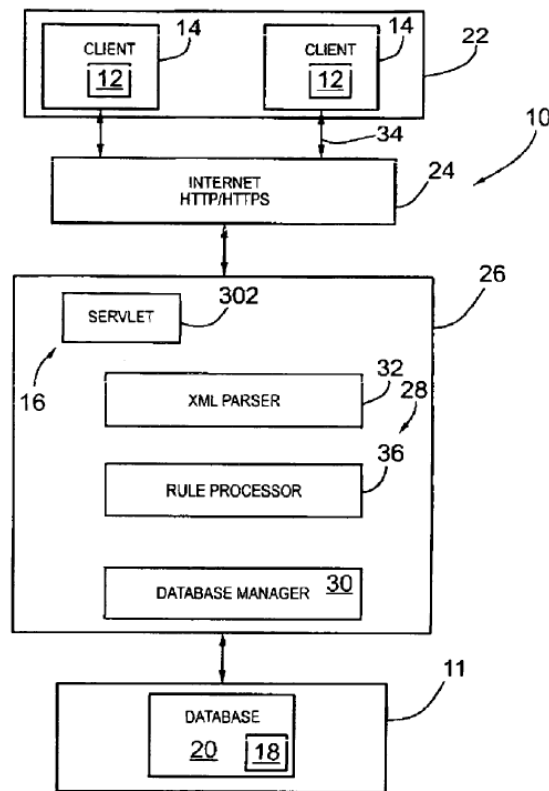


FIG. 1

Figure 1 depicts forms processing system 10 comprising client 14, which communicates over network 24 with form server 16 accessing database 20. *Id.* at 2:41–62. Form server 16 provides client formsets 12 (“i.e. a plurality of forms presented as multiple screens that are interconnected by defined workflow”) to client 14. *Id.* at 2:42–47. “[C]lient formsets 12 are dynamically configurable (i.e. customizable) based on user setting/type and priorities in relation to a master formset(s) 18 stored on a database 20 and/or the form server 16.” *Id.* at 2:50–53. “Each of the generated production formsets 12 are assigned to a role” (via “static overlays”) and “served up to the users of the client 14 in that role, such that

the formset 12 look and functionality is changed based on the type/role of user, as well as individual settings” (via “dynamic overlays”). *Id.* at 2:62–3:1.

Figure 3 of Leung is reproduced below.

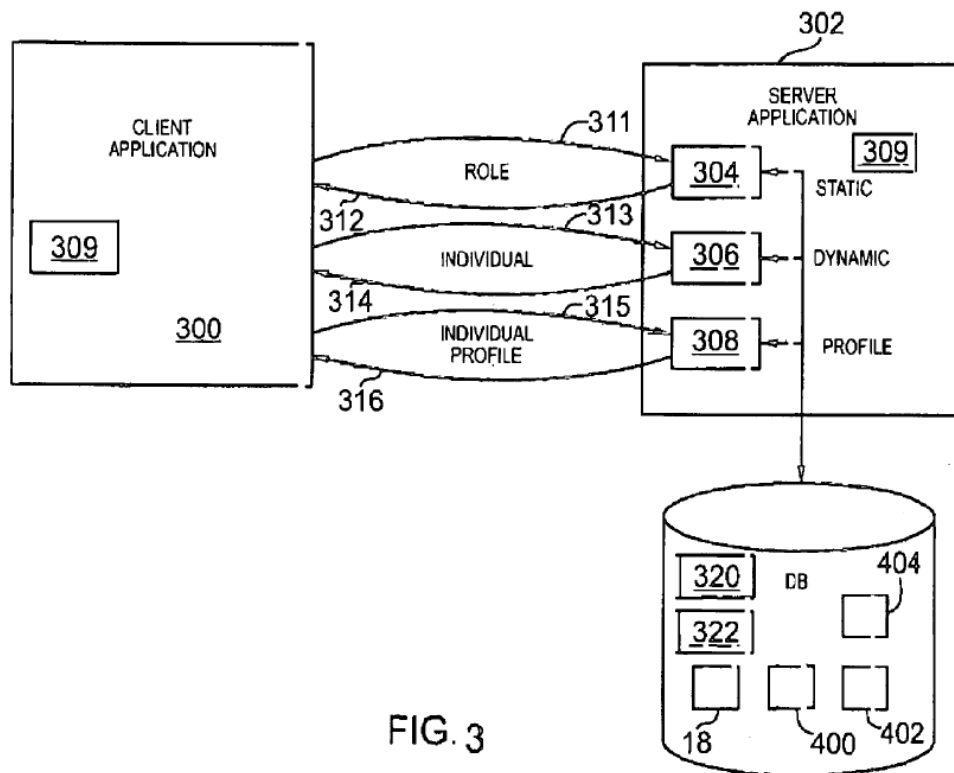


FIG. 3

Figure 3 depicts how formsets are processed using client application 300, server application 302, and database 20. *Id.* at 4:55–5:56. “[C]lient application 300 can be a Java applet (or other application) that runs in connection with a browser” and “operates to dynamically render configurable client formsets 12” for display to the user. *Id.* at 4:56–62. “The workflow (e.g. actions and events) as well as layout of the formset[] 12 can be defined in [an Extensible Markup Language (XML)] file representing

the formset 12,” which is transmitted from form server 16 to client 14. *Id.* at 4:63–66. Once client formset 12 is rendered using client application 300, the user enters or modifies data and submits the modified data to form server 16 as an XML transaction, after which server application 302 processes the transaction and returns another XML file for presentation to the user. *Id.* at 5:34–51.

Leung describes static and dynamic overlays that “modify the XML definitions in the master formset 18” to create a customized formset for the particular user. *Id.* at 5:30–33, Fig. 4. First, form server 16 identifies the user and his or her role (“e.g. administrator vs. a technician”), and server application 302 applies “static overlay/filter 400 to the master formset 18, such that the generic definitions are converted into role/category specific definitions” appropriate for all users of that role. *Id.* at 7:37–43, 8:43–9:64. “[S]tatic overlays 400 can be either additive or restrictive in nature and can be used to add, modify, or delete objects and their related functionality available in the master formset 18.” *Id.* at 8:7–10. Second, server application 302 modifies the formset further by applying dynamic overlays 402 to customize for the individual user. *Id.* at 11:46–12:37. Dynamic overlays 402 permit modifications in

what the individual user (or groups of users) see(s) and what they can change, based on an application specific way of grouping the users based on individual permissions and settings (e.g. Bob as a technician as compared to Charles) or as grouping the users based on grouped permissions and settings (e.g. technicians in department A as compared to technicians in department B). In the first case the technicians are the role/category while Bob and

Charles are the individuals. In the second case the technicians are the category/role while the departments are the “individuals.”

Id. at 11:47–58. “The dynamic overlay 402 feature is specifically restrictive in nature and preferably does not add objects and their related functionality to the formset 12.” *Id.* at 8:33–35.

3. *Obviousness Analysis*

a. Claims 1-10

Petitioner argues that Leung teaches all limitations of the challenged claims, and that “to the extent they [are] not explicitly disclosed, they would have been obvious under 35 U.S.C. § 103 to a person of ordinary skill in the art.” Pet. 14. We focus on the limitations of claim 1 pertaining to a “base object” and “software application” that are disputed by Patent Owner. See Prelim. Resp. 23–29. In particular, claim 1 recites in relevant parts (1) “generating a software application,” (2) “associating at least one first overlaid object with a first overlay group, the at least one overlaid object having a corresponding base object of the software application,” and (3) “configuring the software application to execute using the at least one first overlaid object and the corresponding base object.” Thus, claim 1 requires at least one base object “of” a software application, which is configured by a processor to “execute.”⁴

⁴ An exemplary embodiment including these limitations is shown in Figure 2 of the ’252 patent above, which depicts application 100 “with 3 application objects 130, 140, and 150” that is executed by “users 110 and 120,” and “object 130 of the application 100 . . . overlaid by overlaid object 200.” Ex. 1001, 5:5–8, 5:41–50.

Petitioner has not provided sufficient explanation as to how Leung allegedly teaches these limitations. Petitioner includes in its Petition a summary of what Leung discloses, Pet. 14–22, and a claim chart with underlined quotations from Leung, *id.* at 22–27. In those portions, Petitioner appears to argue that the generic XML definitions of master formset 18 constitute “base object[s]” as recited in claim 1. *See id.* at 14–15 (“The master formset’s base objects exist in the form of XML definitions.”), 21 (discussing “generic definitions” of master formset 18), 24 (underlining “the content of the master formset[] 18 (containing more generic definitions of content, presentation and workflow)”); Ex. 1004 ¶¶ 45, 59–60. Petitioner further appears to contend that the modified “role/category specific” XML definitions in client formset 12 (after application of static overlays 400 to master formset 18) constitute “overlaid object[s]” as recited in claim 1. *See* Pet. 15–21 (discussing “role-based or user-based formset components”), 24 (underlining Leung’s disclosure that “overlay [f]ormset 12 fragments can contain the role specific additions, modifications, and removals in respect to the formset 18” and citing Leung’s disclosure that static overlays 400 are used to “modify the XML definitions” in master formset 18); Ex. 1004 ¶¶ 45–47, 59–62.

It is unclear from the Petition, however, what specific component(s) in Leung Petitioner is relying on as allegedly teaching a “software application.” Petitioner refers to Leung’s disclosure of “a plurality of forms presented as multiple screens that are interconnected by defined workflow” that are “dynamically configurable (i.e. customisable) based on user setting/type and

priorities in relation to a master formset(s) stored on a database and/or the form server” as teaching a software application for generating formsets. Pet. 14 (citing Ex. 1003, 2:42–53). Further, Petitioner underlines in its claim chart Leung’s disclosure of “a 3 tier formset application” (including client workstation 14 in presentation tier 11, business logic of client formset 12 generation and processing in middle/application tier 26, and database 20 containing data content of formset 12 as well as programming related to managing the database in database tier 11). See Pet. 22–23 (emphases omitted). Additionally, Petitioner relies upon Leung’s disclosure that “client application 300 can be a Java applet (or other application) that runs in connection with a browser presented on the UI 202” to conclude that “[o]ne of ordinary skill would understand Java to be an interpreted language,” and that “[o]ne of ordinary skill would understand that an application (e.g., a formset) can request the execution of operating system instructions, which are compiled to native or machine code, in the form of system calls.” *Id.* at 21–22 (citing Ex. 1003, 3:40–43, 4:56–5:6; Ex. 1004 ¶¶ 53, 55, 56).

A petition for *inter partes* review must include a “full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence,” must identify “where each element of the claim is found in the prior art patents or printed publications relied upon,” and must “identify[] specific portions of the evidence that support the challenge.” 37 C.F.R. §§ 42.22(a)(2), 42.104(b)(4)–(5). “The Board may exclude or give no weight to the evidence where a party has failed to state its relevance or to identify specific portions of the evidence that support the

challenge.” 37 C.F.R. § 42.104(b)(5). Petitioner’s description of Leung and unexplained quotations from Leung in its claim chart fail to meet these requirements.

Regardless of whether Petitioner is relying on client application 300 or Leung’s formsets as a “software application,” we are not persuaded that Petitioner has established a reasonable likelihood of prevailing. With respect to client application 300, as described in the portions of Leung cited by Petitioner, client application 300 is executed by processor 208 of workstation computer 201, and may be a Java applet running in a browser. Ex. 1003, 4:16–24, 4:50–58, 5:15–19, Fig. 2. Client application 300, however, does not comprise any XML definitions itself—it merely processes the received XML file corresponding to client formset 12 and renders the forms on the client’s screen. *See id.* at 4:55–5:19, Fig. 2. Petitioner has not demonstrated that Leung describes customizing client application 300 using overlays in any way. Rather, client application 300 is simply the vehicle by which the XML file containing the definitions is received. Thus, we are not persuaded by Petitioner’s arguments regarding client application 300 that Leung teaches at least one base object “of” a software application that is configured by a processor to “execute.”

To the extent Petitioner’s argument is that master formset 18 or client formset 12, rather than client application 300, is a “software application,” Petitioner does not explain in any detail how such a formset is configured to “execute,” as recited in claim 1. *See* 37 C.F.R. §§ 42.104(b)(4)–(5). Again, Leung discloses formsets represented as XML files, where an XML file for

client formset 12 is created by modifying master formset 18 and then transmitted to the client's computer. Ex. 1003, 4:63–66, 5:30–33, 7:38–43. Once received, client application 300 (e.g., a Java applet running in a browser) processes the XML file and “operate[s] to dynamically render configurable client formsets 12 . . . on the browser.” *Id.* at 4:54–5:22. Because Petitioner does not explain at all how the XML file can be considered a “software application” that “execute[s],” or how such actions constitute configuring the XML file to “execute,” Petitioner has not made a sufficient showing that Leung teaches a method comprising the “associating” and “configuring” steps as required by claim 1.

On the record presented, we are not persuaded that Petitioner has shown a reasonable likelihood of prevailing on its assertion that claim 1, or claims 2–10 depending therefrom, are unpatentable over Leung.

b. Claims 11–16

Independent claim 11 is similar to claim 1, and recites “[a] networked computer system” comprising a server computer coupled to a client computer, and a datastore containing a plurality of “software application base objects,” a plurality of “software application overlaid objects,” “each of the plurality of software application overlaid objects being configured to allow the application of a change to a corresponding base object of the software application while preserving customizations associated with the at least one overlaid object,” and “a runtime environment, . . . including instructions that when executed cause the server to . . . receive a request from the client computer to execute a software application [and] configure

the software application to execute in the computer system using the at least one first overlaid object and the corresponding base object.” Thus, similar to claim 1’s recitation of at least one base object “of” a software application that is configured by a processor to “execute,” claim 11 recites a base object “of” a software application and receiving a request for the software application to “execute.” Petitioner cites portions of Leung referring to server application 302, master formset 18, and client formset 12, without clearly identifying what Petitioner is relying on as a “software application” or explaining how any formset in the form of an XML file is a “software application” that “execute[s].” See Pet. 45–50. In its claim chart, Petitioner underlines portions of Leung describing server application 302 and the “role/category specific versions” of the definitions in master formset 18 after application of static overlays 400. *Id.* However, Petitioner does not clearly identify which of the two it is relying on as a “software application” or explain in any detail how either teaches the limitations of the claim. See *id.*; 37 C.F.R. §§ 42.104(b)(4)–(5). Thus, for the same reasons explained above regarding claim 1, we are not persuaded that Petitioner has shown a reasonable likelihood of prevailing on its assertion that claim 11, or claims 12–16 depending therefrom, are unpatentable over Leung.

c. Claims 17–20

Independent claim 17 is similar to claim 11, and recites a system comprising a processor, datastore, plurality of “software application base objects,” plurality of “software application overlaid objects,” and “a software application, stored in the datastore, configured for execution by the

processor, including . . . a first software application base object” and “a runtime environment for the software application, . . . including instructions that when executed cause the processor to . . . configure the software application to execute.” Thus, similar to the recitations in claims 1 and 11 of a base object “of” a software application and receiving a request for the software application to “execute,” claim 17 recites a software application “including” a base object and configured for “execution” by the processor. Petitioner includes little substantive argument for claim 17, primarily referring to its earlier discussion of claim 11. *See* Pet. 58–60. In its claim chart, Petitioner underlines portions of Leung describing server application 302 and the “role/category specific” versions of the definitions in master formset 18 after application of static overlays 400. *Id.* at 59–60. Again, Petitioner does not clearly identify which of the two it is relying on as a “software application” or explain in any detail how either teaches the limitation of the claim. *See id.*; 37 C.F.R. §§ 42.104(b)(4)–(5). We also note that, like client application 300 on client 14, server application 302 on form server 16 does not “includ[e]” any XML definitions itself—it merely receives a formset request from client application 300, applies the overlays to master formset 18, and returns client formset 12. *See* Ex. 1003, 7:38–43. Thus, for the same reasons explained above regarding claims 1 and 11, we are not persuaded that Petitioner has shown a reasonable likelihood of prevailing on its assertion that claim 17, or claims 18–20 depending therefrom, are unpatentable over Leung.

III. CONCLUSION

For the foregoing reasons, we determine that the information presented in the Petition does not establish that there is a reasonable likelihood that Petitioner would prevail in challenging the patentability of at least one of claims 1–20 of the '252 patent. Accordingly, we do not institute an *inter partes* review on the ground of unpatentability presented in the Petition.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is denied and no *inter partes* review is instituted.

IPR2018-00980
Patent 9,363,252 B2

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