

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ALARM.COM INC.
Petitioner

v.

VIVINT, INC.
Patent Owner

Case IPR2016-00155
Patent 6,147,601

PATENT OWNER PRELIMINARY RESPONSE

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Patent Trial and Appeal Board
U.S. Patent & Trademark Office
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EXHIBIT LIST

Exhibit No.	Description
2001	January 27, 2016 Conference Call Transcript

I. Introduction

The Board should deny the Petition because Alarm.com simply does not meet its heavy burden to show that the challenged claims of the '601 patent are not patentable over the applied references. First, Vivint will show that the Petition is fraught with statutory and procedural defects, which in and of themselves necessitate denial of the Petition. Second, Vivint will show that the claimed invention of the '601 patent solved a serious problem by implementing systems and methods for remotely monitoring equipment, and delivering equipment fault notification messages to different individuals based on user-modifiable message profiles. Third, Vivint will show that Alarm.com's haphazard attempt to lump together the teachings from several disparate references, and Alarm.com's arguments stemming therefrom, lack merit and fail to meet the burden for demonstrating that claims 1-3, 22-24, 26, 30, 32 and 42-43 of the '601 patent are unpatentable. Finally, Vivint will show that the instant Petition is redundant, and should be denied in favor of other Petitions filed by Alarm.com against the '601 patent. Vivint deals with each argument in order, leaving the Board with the inescapable conclusion that it should deny institution of the Petition.

**II. The Petition is Riddled with Both Statutory and Procedural Defects,
Which Independently and Collectively Warrant Denial of the Petition**

A. Alarm.com Has Not Shown that Honeywell is Prior Art

Both of Alarm.com's proposed grounds for unpatentability rely on Honeywell, however, Alarm.com fails to provide sufficient evidence to show that Honeywell qualifies as prior art. As such, both of Alarm.com's proposed grounds for unpatentability are fatally flawed and should be rejected.

Inter partes review may only be based on prior art patents and printed publications; other types of art are excluded. 35 U.S.C. § 311(b). For a document to be a "printed publication" under 35 U.S.C. § 102, the document must be publicly accessible to persons concerned with the art to which the document relates.¹ *In re Wyer*, 655 F.2d 221, 227 (C.C.P.A. 1981); *also L-3 Comm's Holdings, Inc et al. v. Power Survey, LLC*, IPR2014-00832, Paper 9, p. 11 (P.T.A.B. Nov. 14, 2014). A given reference is publicly accessible "upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject

¹ The Board has held that whether a document is a printed publication and eligible as prior art goes to its sufficiency and not its admissibility. *Groupon, Inc. v. Blue Calypso, LLC*, CBM2013-00033, Paper 29, p. 3 (P.T.A.B. May 12, 2013).

matter or art exercising reasonable diligence, can locate it.” *Bruckelmyer v.*

Ground Heaters, Inc., 445 F.3d 1374, 1378 (Fed. Cir. 2006). Whether a reference was publicly accessible is a legal determination based on underlying factual issues, and is subject to a case-by-case analysis. *Wyer*, 655 F.2d at 224. Alarm.com bears the burden of proving public accessibility. 37 C.F.R. § 42.20(c); *TRW Automotive US LLC v. Magna Elecs. Inc.*, IPR2015-00960, Paper 9, pp. 17–18 (P.T.A.B. Oct. 5, 2015). And that proof cannot be added during trial, but rather must be submitted with the Petition. *Temporal Power v. Beacon Power*, IPR2015-00146, Paper 12, p.4 (P.T.A.B. Jun. 10, 2015) (“It is undisputed that § 314(a) imposes a burden on Temporal to establish in its Petition a reasonable likelihood of success, which includes, among other things, making a threshold showing that the Lazarewicz PowerPoint is a printed publication within the meaning of § 102(b).”) Alarm.com fails to produce sufficient proof.

Here, Alarm.com provides two pieces of generic information as the sole basis for proving that Honeywell was publicly accessible prior to the ’601 patent’s January 9, 1999 priority date: (i) Honeywell “has a copyright date of 1997”; and (ii) Honeywell “bears Library of Congress Catalog Card Number 97-72917.” (Pet., p. 3.) Yet, neither piece of information is sufficient to establish that Honeywell was publicly available before January 9, 1999, and Alarm.com’s expert, Mr. Zatarain, provides no additional insight on this issue.

1. Honeywell's Copyright Date of 1997 is Insufficient to Show Public Accessibility

A mere appearance of a date on a document does not establish that an accompanying document was available to or disseminated to the public. *L-3 Comm'ns*, IPR2014-00832, Paper 9 at 16-17 (finding that a document having the words “ca. 2002” does not show that it was publicly available in 2002).

Even a copyright date on a document, absent any other showing, is insufficient to show that the document was accessible to the public and qualifies as a printed publication. *TRW Automotive*, IPR2015-00960, Paper 9 at 18–19 (“The purpose of a copyright notice is, simply, to put a reader on notice that a claim has been made that the work is copyrighted”); *Hilgraeve, Inc. v. Symantec Corp.*, 271 F. Supp. 2d 964, 976 (E.D. Mich. 2003) (“[M]ere citation to the [copyright] date imprinted on a document, without more, is insufficient to establish that a product was known or used by others on that date.”); *iONROAD Ltd. v. Mobileye Tech. Ltd.*, IPR2013-00227, Paper 18 (P.T.A.B. Aug. 27, 2013). Thus, Honeywell's copyright of 1997 is insufficient to definitively show that Honeywell was publicly available in 1997, or at any point prior to January 9, 1999. *Id.*, at 3 and 15-16.

2. Honeywell's Library of Congress Catalog Card Number is Insufficient to Show Public Accessibility

First, Alarm.com provides no explanation as to the meaning of the Library of Congress (LOC) Catalog Card Number included in Honeywell. Indeed,

Alarm.com does not explain whether Honeywell's LOC Catalog Card Number (97-72971) is supposed to identify a particular date or date range, and if so, whether that date corresponds to a potential date when Honeywell was submitted to the LOC, a potential date when Honeywell was approved by the LOC, or a potential date when Honeywell may have actually been shelved at the LOC. Likewise, Honeywell's LOC Catalog Card Number, by itself, does not show that Honeywell was in fact shelved at the LOC, or if it was shelved, in what section of the Library Honeywell was shelved (*e.g.*, a publicly accessible section or a restricted access section). Without such showings, Vivint, and the Board, can only guess what Honeywell's LOC Catalog Card Number actually signifies.

Even if all of the forgoing questions were resolved in favor of Alarm.com, at best, Honeywell's LOC Catalog Card Number would only show that Honeywell was cataloged and indexed sometime in 1997. But, such a showing would still be insufficient to prove that Honeywell was publicly available prior to January 9, 1999. Indeed, Alarm.com is still required to show that Honeywell was cataloged or indexed in a "meaningful way." *In re Cronyn*, 890 F.2d 1158, 1161 (Fed. Cir. 1989). Although Alarm.com has provided no evidence of the cataloging and indexing processes of the LOC at or around 1997, the Federal Circuit has previously addressed this issue and found that the Library's cataloging and indexing processes at that time did not satisfy the public accessibility requirement.

In *In re Lister*, it was established that at least until 1998, the LOC's catalog "was not sorted by subject matter and could only be searched by either the author's last name or the first word of the title of the work." 583 F.3d 1307, 1314-15 (Fed. Cir. 2009). Based on this showing, the government conceded, and the Federal Circuit agreed, that the LOC's "catalog alone would have been insufficient to support a finding of public accessibility." *Id.* at 1315 (agreeing that "neither searching by author nor the first word in the title ('Advanced') would guide a researcher interested in his golfing method to the manuscript"). Like in *In re Lister*, the Board should similarly conclude that searching the LOC's catalog in 1997 by author or by the first word of Honeywell's title would not have guided a person concerned with an "Electronic Message Delivery System Utilizable in the Monitoring of Remote Equipment" to the Honeywell reference.

While the determination of whether a document was cataloged or indexed in a "meaningful way" is not the only factor to consider when resolving the issue of public availability, it is determinative here because Alarm.com has failed to provide any evidence pertaining to the remaining factors—*e.g.*, whether the dissemination activities evinced an intent by the author(s) to publicize the document, and whether there existed a "research aid" to guide those of skill in the art to the document. *Cronyn*, 890 F.2d at 1161. Therefore, Alarm.com has failed to provide sufficient evidence to show that Honeywell qualifies as prior art. *Wyer*,

655 F.2d at 227 (internal citations omitted) (“the one who wishes to characterize the information, in whatever form it may be, as a ‘printed publication’ should produce sufficient proof of its dissemination or that it has otherwise been available and accessible to persons concerned with the art to which the document relates and thus most likely to avail themselves of its contents”).

B. Alarm.com Has Not Shown that BACnet is Prior Art

Both of Alarm.com’s proposed grounds for unpatentability also rely on BACnet. But as is the case with Honeywell, Alarm.com fails to provide sufficient evidence to show that BACnet qualifies as prior art. As such, Alarm.com’s proposed grounds for unpatentability are again fatally flawed and should be rejected for this additional reason.

Alarm.com provides a single piece of information as the sole basis for proving that BACnet was publicly accessible prior to the ’601 patent’s January 9, 1999 priority date: that BACnet “was approved in, and has a copyright date of, 1995.” (Pet., p. 3.) But for the same reasons discussed above, BACnet’s copyright date of 1995 is insufficient to definitively show that BACnet was publicly available at that time, or at any point prior to January 9, 1999. *iONROAD Ltd.*, IPR2013-00227, Paper 18 at 3 and 15-16.

Moreover, BACnet’s alleged public availability date of 1995 is called into further question by other contradicting dates included within the document. For

example, BACnet includes a 1999 addendum (approved and copyrighted in 2000), which is both identified on the face of the document and included at the end of the document. (BACnet, 1205.0001 and 1205.0549-614.) The addendum purports to “add a number of independent substantive changes to the BACnet standard.” (*Id.* at 1205.0551.) BACnet also includes an *Errata* that “lists all known *errata* to ANSI/ASHRAE 135-1995 as of [September 7, 1999].” (*Id.* at 1205.0537-547.) Because both the addendum and *Errata* included in BACnet identify dates that are later than January 9, 1999, and detail substantive changes to the BACnet standard, the reference submitted as BACnet could not have been publicly available in 1995 as Alarm.com suggests, or at any time before to the priority date of the ’601 patent.

Therefore, Alarm.com fails to meet its burden to prove that BACnet qualifies as prior art for this additional reason. *Wyer*, 655 F.2d at 226. As such, Alarm.com’s proposed grounds for unpatentability, each of which depend on BACnet qualifying as prior art, are fatally flawed and should be rejected by the Board.

C. Alarm.com Attempts to Circumvent the Statutorily Imposed Page Limit Using Improper Incorporations by Reference

Rule 42.24(a)(1)(i) limits a petition to 60 pages. In *Cisco Systems v. Cation Techs., LLC*, the Board stated that “citations to ‘large portions of another document, without sufficient explanation of those portions, amounts to

incorporation by reference.” IPR2014-00454, Paper 12, p. 8 (P.T.A.B. Aug. 29, 2014). And it is well-settled that “[i]t is improper to incorporate by reference arguments from one document into another document.” 37 C.F.R. § 42.6(a)(3). One purpose of the prohibition against incorporation by reference is to eliminate abuses that arise from incorporation.” *Cisco Systems*, IPR2014-00454, Paper 12 at 10, citing to the Rules of Practice for Trials Before The Patent Trial and Appeal Board and Judicial Review of Patent Trial and Appeal Board Decisions; Final Rule, 77 Fed. Reg. 48,612, 48,617 (Aug. 14, 2012). Such practices are also prohibited because incorporation by reference “amounts to a self-help increase in the length of the brief, and is a pointless imposition on the court’s time.” *Id.* at 10.

Here, the Petition includes numerous citations to large portions of Mr. Zatarain’s declaration without explaining the relevance of the cited language. (Pet., pp. 13 (citing ¶¶75-82), 21 (citing ¶¶114-16), 27 (citing ¶¶98-100), and 30 (citing ¶¶118-20).) The Board should disregard these citations because they are an improper incorporation by reference and, by relying on these citations without explanation of their relevance, Alarm.com fails to meet its burden for institution.

Alarm.com’s copious citations to Mr. Zatarain’s declaration can also be found scattered throughout the included claim charts. (*Id.*, pp. 30-42 and 50-55.) For example, Alarm.com’s Ground 1 claim chart for the preamble of claim 1 cites to section VII(A)(1) of Mr. Zatarain’s declaration, which encompasses 10

paragraphs, the Ground 1 claim chart for claim 30 cites to six paragraphs of the declaration, and the Ground 2 claim chart for claim elements 1(c) and (f) (as identified in the Petition) each cite to section VII(B) of the declaration, which spans three pages. Again, these bare citations are included without explanation.

The Board has found that information presented only in the declaration fails to meet the burden for institution of an *inter partes* review. “The Director may not authorize an inter partes review to be instituted unless the Director determines that the information *presented in the petition* ... shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” *ZTE (USA), Inc. et al. v. Electronics and Telecomm. Research Institute* , IPR2015-00029, Paper 12, p.5 (P.T.A.B. Mar. 20, 2015) (emphasis in original); *DeSilva v. DiLeonardi*, 181 F.3d 865, 866-67 (Fed. Cir. 1999) (incorporation by reference amounts is “a pointless imposition on the court’s time. A brief must make all arguments accessible to the judges, rather than ask them to play archaeologist with the record”).

For example, in *LG Display, Ltd. v. Innovative Display Techs. LLC*, LG string-cited portions of its expert declaration for nearly every claim element, requiring repeated reference to the declaration for analysis. IPR2014-01094, Paper 10, p. 16 (P.T.A.B. Jan. 13, 2015). The Board found that such incorporation by reference was an improper circumvention of the page limit and an improper

method to bring in substantive arguments that are present only in the declaration.

Id. Similarly, in *Cisco Systems*, the Board declined to “consider arguments that [were] not made in the Petition, but [were] instead incorporated by reference to the cited paragraphs and claim charts of [the declaration].” IPR2014-00454, Paper 12 at 10. And in *IBM Corp. v. Intellectual Ventures II LLC*, the Petition also cited to numerous paragraphs of its expert declaration, which the Board declined to consider because the Petitioner failed to explain the significance of these paragraphs. IPR2014-00673, Paper 18, p. 4 (P.T.A.B. Dec. 23, 2014).

Like in *Cisco Systems* and *Intellectual Ventures II*, the Board should decline to consider the arguments incorporated from Mr. Zatarain’s declaration because Alarm.com has failed to explanation of the significance of the cited paragraphs.

D. Alarm.com’s Claim Charts are Insufficient to Show that Claims 2, 3, 23, 24, 26, 30 and 32 are Unpatentable

While the Petition includes a substantial number of pages *generally* addressing the various elements of independent claims 1, 22, 42 and 43, the analysis of dependent claims 2, 3, 23, 24, 26, 30 and 32 is solely confined to Alarm.com’s claim charts. The Board should conclude that these claim charts are insufficient to show that dependent claims 2, 3, 23, 24, 26, 30 and 32 are unpatentable, because the charts include nothing more than quotes and citations

from the asserted references, and Mr. Zatarain's declaration, and lack any explanation to tie the elements of these claims to the cited references.

The PTO rules require that "[t]he Petition ... specify where each element of the claim is found in the prior art patents or printed publications relied upon." 37 C.F.R. § 42.104(b)(4). "The Board may exclude or give no weight to ... 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). And, § 42.22(a)(2) requires each petition to include "a detailed explanation of the significance of the evidence including material facts, and the governing law, rules, and precedent."

The Board explained these rules in *Cisco Systems*. See generally, IPR2014-00454, Paper 12. In that case, as here, the Petition included claim charts that contained quotes and citations from each of the asserted references. *Id.* at 10-11. The Board denied the Petition because it did not sufficiently specify where each element of the claims was found in the cited references and did not include a detailed explanation of the quotations and citations from the applied references. *Id.* at 11. In addition, the Board continually has warned petitioners against "substantially rely[ing] on claim charts to establish their [] contentions without significant explanation apart from the charts." *Denso Corp. et al. v. Beacon Navigation GmbH*, IPR2013-00026, Paper 12, p. 18 (P.T.A.B. Mar. 18, 2013). This is because "[r]elying on claim charts with little or no supporting discussion or

explanation assumes that the [] contentions are self-evident from them [and that] is usually not the case.” *Id.*

As discussed further below, not only are Alarm.com’s unpatentability contentions for dependent claims 2, 3, 23, 24, 26, 30 and 32 not self-evident from the provided quotes and citations, but for many of these claims a reasonable inference of unpatentability cannot be drawn therefrom without having to fill in major gaps and holes in Alarm.com’s so-called analysis. The Board should thus conclude that Alarm.com’s claim charts are insufficient to prove unpatentability of dependent claims 2, 3, 23, 24, 26, 30 and 32 as the charts lack any explanation to tie the elements of these claims to the cited references. *DeSilva*, 181 F.3d at 866-67.

E. Ground 1 fails to substantively address claim 23

The entirety of Alarm.com’s argument in Ground 1 against claim 23 is confined to a single claim chart. (Pet., p. 37.) But the claim chart for claim 23 indicates that it in fact relates to Ground 2, and not Ground 1—comparing claim 23 to the combination of Wewalaarachchi, Honeywell, BACnet **and Levac**.² Because Ground 1 of the Petition fails to substantively address claim 23, the Board should not institute *inter partes* review of this claim on this ground.

² Mr. Zatarain’s declaration is similarly flawed. (See Ex. 1207, p. 70.)

III. The Petition is Substantively Deficient

In addition to the statutory and procedural deficiencies outlined above, each of which warrant denial of the Petition, the Petition is also substantively deficient. The Petition fails to satisfy the bedrock principles required to establish unpatentability under a theory of obviousness, including: (i) failing to address the factual inquiries set forth in *Graham*; (ii) failing to articulate a clear rationale for combining the asserted references in the proposed combination; and (iii) failing to show how each and every feature of the challenged claims are disclosed by the proposed combination of references. Before Vivint addresses each of these deficiencies, however, a brief discussion of the '601 patent is in order.

A. The '601 Patent Presents Novel Advances in Remotely Monitoring Equipment and the Delivery of Fault Notification Messages

1. Background That Led to the '601 Patent

Often times it is desirable to be able to remotely monitor equipment that requires periodic preventive maintenance and/or that may require immediate attention should a catastrophic failure occur. ('601 patent, 1:16-19.) Prior to the filing date of the '601 patent, several remote monitoring systems existed. (*Id.*, 1:33-65.) But significant problems existed because these prior systems “did not allow for sufficient flexibility in routing fault messages to a variety of different potential recipients of such messages via a variety of different media, depending on

the urgency or nature of the fault.” (*Id.*, 1:66-2:3.) These prior system also did not provide users with an easy way to enter or modify such information. (*Id.*, 2:3-5.)

For example, a customer wanting to monitor an HVAC system using these conventional remote monitoring systems would have been unable to send a non-emergency condition notification (*e.g.*, filter needs cleaning) to a first individual via a first medium (*e.g.*, e-mail) while also sending an emergency condition notification (*e.g.*, low or high refrigerant pressure) to a second individual via a second medium (*e.g.*, via beeper or other personal communication device). (*Id.*, 2:5-14.) These limitations resulted in inefficient systems, and in some cases equipment damage and/or unsafe operating conditions.

2. Innovations of the '601 Patent

The systems and methods disclosed in the '601 patent addressed and solved the limitations of prior remote monitoring systems by implementing an efficient way to remotely monitor equipment and to deliver different fault notification messages to different individuals. FIG. 1 of the '601 patent (reproduced herein) illustrates an exemplary system for remotely monitoring equipment and delivering equipment fault notification messages to designated individuals.

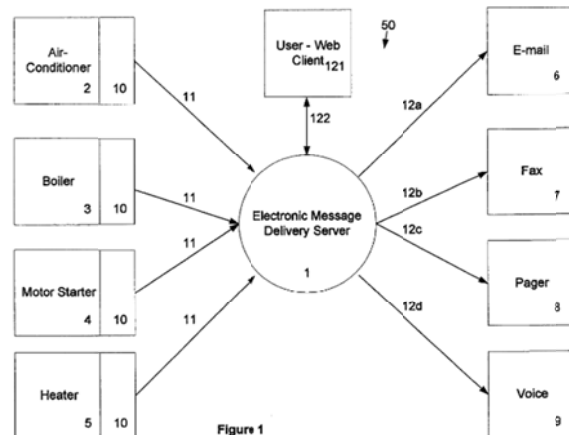


FIG. 1 illustrates that existing equipment—*e.g.*, air-conditioner 2, boiler 3, motor starter 4, or heater 5—can be remotely monitored using system 50. (*Id.*, 5:37-42.) The existing equipment are fitted with interfaces 10 that send a status signals to server 1, which “let[s] the message delivery server 1 know that the equipment being monitored and the interface unit 10 are functioning correctly.” (*Id.*, 5:43-47.) When a predetermined exception condition occurs in a piece of equipment being monitored, the interface 10 sends an incoming exception message to the message delivery server 1. (*Id.*, 5:47-51.) The incoming exception message is then processed at server 1, and subsequently routed to a desired user interface in the form of an outgoing exception message. (*Id.*, 5:51-55 and 6:43-48.) The desired user interface may be any one of e-mail 6, fax 7, pager 8, or voice 9, for example. (*Id.*, 5:51-55.)

The '601 patent explains that the processing of the incoming exception message(s) into an outgoing exception message(s), and the subsequent routing of the outgoing exception message(s) to the desired user interface(s), is dictated by a “message profile.” (*Id.*, 5:51-55 and 6:43-48.) For example, a user may remotely create and/or modify its own “message profile” via the internet 122 using a web client. (*Id.*, 5:51-55 and 6:7-29.) By maintaining such “message profiles,” users can specify “who to contact via what means depending on which fault has

occurred” (*id.*, 2:5-16), thereby resulting in a system that is more flexible, efficient, and safe than prior remote monitoring systems.

B. Claim Construction

Vivint’s proposed constructions should be adopted because, unlike Alarm.com’s proposed constructions, Vivint’s constructions properly follow the broadest reasonable interpretation standard applied during *inter partes* review. The following table summarizes Vivint’s proposed claim constructions.

Claim Term	Vivint’s Construction
message profile	a set of parameters identifying who to contact via what means depending on what incoming message is received
plurality of message profiles	a plurality of sets of parameters identifying who to contact via what means depending on what incoming message is received
message generating mechanism	No construction necessary
normalization module	No construction necessary

1. Vivint’s constructions for “*message profile*” and “*plurality of message profiles*” are the proper constructions

Independent claims 1 and 22 each recite the term “*message profile*,” and independent claims 42 and 43 each recite the term “*plurality of message profiles*.” Vivint construes these terms “a set of parameters identifying who to contact via what means depending on what incoming message is received” and “a plurality of

sets of parameters identifying who to contact via what means depending on what incoming message is received,” respectively. Vivint’s proposed constructions are proper because they are consistent with the explicit language of the claims and with the specification. In contrast, Alarm.com improperly asks the Board only construe the term “*message profile*” when it is used in conjunction with additional claim language—i.e., “*containing outgoing message routing instructions.*”

a) Vivint’s constructions are consistent with the explicit language of the claims

The terms “*message profile*” and “*plurality of message profiles*” are each used consistently throughout the claims of the ’601 patent. This consistent usage would make it clear to a PHOSITA that the “*message profile*” and “*plurality of message profiles*” each need to contain certain pieces of information for the “server” recited in independent claims 1, 22, 42 and 43 to function properly. Specifically, independent claim 22 dictates that the “*message profile*,” at a minimum, indicates “at least one predetermined user-defined remote communication device” (who to contact) to which the server should “forward at least one outgoing exception message.” Independent claim 22 also dictates that the “*message profile*” indicates when the server should “forward at least one outgoing exception message” “based on said incoming exception message” (depending on

what incoming message is received). Similar language is also recited in independent claims 1, 42 and 43.

Although independent claims 1, 22, 42 and 43 explicitly show that the “*message profile*” and “*plurality of message profiles*” instruct the server as to who to contact and when such contact should be made, the claims do not explicitly recite that the means for contacting the desired individuals should also be included in the “*message profile*” and “*plurality of message profiles*.” But, a person having ordinary skill in the art (PHOSITA) would understand that desired contact means must necessarily be indicated to the server before forwarding the at least one outgoing exception message, and that it would be logical for such means to be included in the “*message profile*” and “*plurality of message profiles*” along with the other user-defined parameters. In fact, an examination of the specification shows that this is indeed the case.

b) Vivint’s constructions are consistent with the specification

Vivint’s constructions are correct because they track the description in the specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). The specification of the ’601 patent consistently describes a “*message profile*” as “a set of parameters identifying who to contact via what means depending on what

incoming message is received.” The specification even proffers a definition for the term “*message profile*”:

As an example, a customer that has an HVAC system with a monitoring network may want to send certain non-emergency condition notifications (e.g., filter needs cleaning) to certain individuals (e.g., contractor/maintenance personnel) via a certain medium (e.g., e-mail) and emergency condition notifications (e.g., low or high refrigerant pressure) to other individuals (building owner, contractor, etc.) via other means (e.g., via beeper or other personal communication device). **Such a list of who to contact via what means depending on which fault has occurred may be referred to as a “message profile”.** (’601 patent, 2:5-16, emphasis added.)

Similarly, the specification also provides that:

The contractor is provided with an account on the message delivery system that he can access via the Internet. The contractor sets up the specific parameters of **which exception conditions are reported to which individuals.** The contractor also sets up by **which media (fax, e-mail, PCS) these individuals are to be notified.** Multiple individuals may be alerted as to a exception condition. **All of this data constitutes the contractor’s message profile.** (’601 patent, 4:41-47, emphasis added.)

Although the specification discloses alternative embodiments where a “*message profile*” can optionally include additional parameters, such as: (i) time delay instructions (*e.g., id.*, 6:30-32); (ii) time of day dependent message

forwarding instructions (*e.g.*, *id.*, 4:50-59); and (iii) multiple simultaneous message delivery instructions (*e.g.*, *id.*, 3:10-17), this does not dilute the fact that the specification consistently defines the “*message profile*” as “identifying who to contact via what means depending on what incoming message is received.”

c) *Alarm.com’s proposed construction is improper*

Alarm.com urges the Board to construe the term “*message profile*” only when used in conjunction with additional claim language—*i.e.*, “*containing outgoing message routing instructions.*” (Pet., pp. 7-8.) As a result, Alarm.com’s proposal to only construe the phrase “*message profile containing outgoing message routing instructions,*” would inevitably result in inconsistent interpretations for independent claims 1 and 22 versus independent claims 42 and 43 (which do not recite the added language of “*containing outgoing message routing instructions*”). This cannot be the case for at least two reasons.

First, Alarm.com’s proposal to only construe the phrase “*message profile containing outgoing message routing instructions,*” while refusing to offer a construction for “*plurality of message profiles*” (as recited in independent claims 42 and 43), creates unnecessary ambiguity among the claims.

Second, Alarm.com’s proposed construction for the phrase “*message profile containing outgoing message routing instructions*”—“information identifying a communications device or devices to receive an outgoing message from the

computer server”—is inconsistent with the specification, and is nothing more than an attempt to broaden the claimed “*message profile*” such that it fits within the confines of Alarm.com’s obviousness theory. Indeed, the specification defines the “*message profile*” as identifying not only who to forward an outgoing exception message, but also how (the desired messaging means) and when (depending on what incoming message is received) the outgoing exception message should be forwarded by the server. In fact, the specification does not describe a single embodiment where a “*message profile*” only includes “information identifying a communications device or devices to receive an outgoing message from the computer server,” as Alarm.com suggests.

Alarm.com attempts to support its flawed construction by alleging that the definition of “*message profile*” provided in specification is “inconsistent with the claim language.” (Pet., p. 7.) But, Alarm.com’s only support for this alleged inconsistency comes from dependent claim 7. Alarm.com alleges that the “selecting at least one type of user-defined communication device,” and “selecting specific user-defined communication devices of the types selected,” as recited in claim 7, shows that the “*message profile*” recited in independent claim 1 cannot include information about “*when and how to send messages*” because doing so would be redundant. (Pet., pp. 7-8.)

However, dependent claim 7 does not recite anything about selecting the communication *means* or determining *when* to forward an exception message. Instead, claim 7 merely recites *who* the outgoing exception messages should be forwarded to—*i.e.*, “specific user-defined communication devices.” Therefore, if claim 7 did in fact render a certain type of information included in the “*message profile*” of independent claim 1 redundant, that information could only be the identification of which “communications device or devices to receive an outgoing message from the computer server,” which is the construction proposed by Alarm.com. Therefore, Alarm.com’s only argument in support of its proposed construction for the phrase “*message profile containing outgoing message routing instructions*” is internally inconsistent, and should be discarded.

The Board should therefore adopt Vivint’s constructions for “*message profile*” and “*plurality of message profiles*” because they are supported by the patent and are proper under the broadest reasonable interpretation standard.

2. The Board should not construe the term “*message generating mechanism*”

Words in a claim are generally given their ordinary and customary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). The ordinary and customary meaning of a term “is the meaning that the term would have to a person of ordinary skill in the art in question.” *In re Translogic Technology, Inc.*, 504

F.3d 1249, 1257 (Fed. Cir. 2007). Because the term “*message generating mechanism*” is clear and unambiguous, no construction is necessary for this term. Moreover, because Alarm.com takes two contradicting positions with respect to the proper construction for this term—both of which are inconsistent with the specification—the Board should reject both of Alarm.com’s positions.

Alarm.com first takes the position that the term “*message generating mechanism*” is indefinite because it is a “means-plus-function claim term under 35 U.S.C. §112, ¶6” and lacks any corresponding “structure for performing the function of ‘generating messages.’” (Pet., pp. 8-9.) However, Alarm.com is incorrect as the term “*message generating mechanism*” should not be treated as a means-plus-function claim term. Indeed, the Federal Circuit has held that 35 U.S.C. §112, ¶6 does **not** apply if persons of ordinary skill in the art reading the specification understand the term in question to have a sufficiently definite meaning as the name for structure, even when the term covers a broad class of structures or identifies the structures by their function. *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1372-73 (Fed. Cir. 2003).

Alarm.com’s allegation that the term “*message generating mechanism*” is indefinite seems to be predicated on its assumption that the term “is not understood by one of ordinary skill in the art as referring to any particular structure.” (Pet., p. 8.) But, this assumption is directly contradicted by Alarm.com’s own expert, Mr.

Zatarain, who claims that the asserted prior art system “disclosed an interface unit connected to a sensor with a message generating mechanism that generates exception messages and sends those messages to a remote computer server” (Ex. 1207, ¶90). Mr. Zatarain’s statement shows that he believed the term “*message generating mechanism*” to be sufficiently definite to identify a corresponding structural component from the asserted prior art system. *Apex Inc.*, 325 F.3d at 880-81.

Nonetheless, even if the term “*message generating mechanism*” did fall under 35 U.S.C. §112, ¶6, which it does not, it would still not be indefinite. Indeed, the specification provides sufficient disclosure for a PHOSITA to recognize the corresponding structure that could be used to perform the function of “generating messages.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997) (holding that “all that is necessary to satisfy the description requirement is to show that one is ‘in possession’ of the invention,” which can be accomplished by describing the invention using “such descriptive means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention,” but “the exact terms need not be used”). For example, the specification provides at least one exemplary structural implementation for a “*message generating mechanism*” that could be used to generate messages for transmission over a cellular telephone network. (’601 patent, 5:56-6:6.) Additionally, the specification

discloses that other possible implementations are outlined in U.S. Pat. Nos.

5,594,740 to LaDue and 5,546,444 to Roach, Jr. et al. (*Id.*, 4:17-33 and 5:56-6:6.)

Therefore, Alarm.com's allegations of indefiniteness are incorrect.

Moreover, despite Alarm.com's allegation that the term "*message generating mechanism*" is indefinite, Alarm.com nonetheless proceeds to propose an alternative construction for this term. (Pet., pp. 9-10.) Not only does this alternative construction directly contradict Alarm.com's previously-stated position that this term is indefinite, such a construction is unnecessary because the term "*message generating mechanism*" is clear and unambiguous. Therefore, the Board should find that no construction is necessary for this term.

3. The Board should not construe the term "*normalization module*"

As was the case with the term "*message generating mechanism*" above, the term "*normalization module*" is also clear and unambiguous. Alarm.com again takes two contradicting positions with respect to the proper construction for this term that are both inconsistent with the specification and only add confusion. Accordingly, the Board should reject both of Alarm.com's positions and find that no construction is necessary for the term "*normalization module*."

Alarm.com takes the position that the term "*normalization module*" is indefinite because it is a "means-plus-function claim term under 35 U.S.C. §112,

¶6” and lacks any corresponding “structure for performing the function of ‘normalizing incoming messages into a uniform format.’” (Pet., p. 10.) However, Alarm.com is incorrect as the term “*normalization module*” should not be treated as a means-plus-function claim term. *Apex Inc.*, 325 F.3d at 880-81.

Alarm.com’s allegation that the term “*normalization module*” is indefinite seems to again be predicated on its assumption that the term “is not understood by one of ordinary skill in the art to refer to any particular structure.” (Pet., p. 10.) But, this assumption is directly contradicted by Mr. Zatarain who claims that “data normalization was commonly used in SCADA systems, including those applied to Building Management.” (Ex. 1207, ¶101, *also* ¶¶37 and 38.) Mr. Zatarain’s statement shows that a PHOSITA would have been aware of “data normalization” and the corresponding structural options for implementation within a building management system. Casting further doubt on Alarm.com’s allegation that the term “*normalization module*” is indefinite is the fact that Alarm.com found that the term “*message normalizer*” of independent claim 43 was sufficiently definite despite having a similar arrangement within the server and having substantially similar functionality as the “*normalization module*” of claims 24 and 32.

Nonetheless, even if the term “*normalization module*” did fall under 35 U.S.C. §112, ¶6, which it does not, it would still not be indefinite. Indeed, the specification provides sufficient disclosure for a PHOSITA to recognize the

corresponding structure that could be used to perform the function of “normalizing incoming messages into a uniform format.” *Lockwood* at 1572. For example, the specification provides that the normalization module 26 is included in message delivery system 1, which includes “four hardware devices 200, 300, 400, and 500.” (’601 patent, FIG. 4 and 6:43-7:28.) FIG. 4 specifically shows that normalization module 26 is implemented within device 200, which is described as being “responsible for receiving incoming messages, processing them in accordance with the user's preferences, and routing them for output.” (*Id.*, 6:45-48.) Therefore, Alarm.com’s allegations of indefiniteness are incorrect.

Alarm.com also proposes an alternative construction for the term “*normalization module*.” (Pet., p. 11.) But, not only does this alternative construction directly contradict Alarm.com’s previously-stated position that this term is indefinite, such a construction is unnecessary because the term “*normalization module*” is clear and unambiguous. Therefore, the Board should find that no construction is necessary for this term.

4. If Alarm.com improperly construed any of the ’601 patent’s claim terms, then Alarm.com cannot prevail

The Board has held that a Petitioner fails to demonstrate a likelihood of prevailing on a claim when the proper claim construction is later determined by the Board to be different than the construction proposed and relied upon by the

Petitioner. For example, in *Microsoft Corp. v. Proxyconn*, the Board held that “[a]s this argument [of unpatentability] is premised on Petitioner’s erroneous claim construction we are not persuaded of a reasonable likelihood of prevailing [on this claim].” IPR2012-00026, Paper 17, p. 24 (P.T.A.B. Dec. 21, 2012). Thus, because Alarm.com has unnecessarily construed the terms “*message generating mechanism*” and “*normalization module*,” and proposed erroneous constructions for the terms “*message profile*” and “*plurality of message profiles*,” the Board should also deny institution for any claims that Alarm.com seeks to prove are unpatentable by using these unnecessary and erroneous constructions.

C. The Petition does not Articulate what is missing from the primary reference before turning to the secondary references

As will be addressed more fully below, the Petition includes two grounds of unpatentability, both of which rely on a theory of obviousness under 35 U.S.C. §103. The pertinent paragraph of section 103 provides that an invention is unpatentable “if 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.” 35 U.S.C. § 103(a) (2006) (emphasis added). In comparing the claim to the prior art, three factual inquiries must be made: (1) the level of ordinary skill in the art at the time the invention was made must be evaluated; (2) the scope and content

of the prior art at the time the invention was made must be ascertained; and (3) the differences between the claimed invention and the prior art must be determined.

Graham v. John Deere Co., 383 U.S. 1, 17 (1966). Only after all three of these criteria are considered can a *prima facie* case of obviousness be established.

Here, Alarm.com fails to address the third factual inquiry under *Graham* for both of its grounds.

1. Ground 1 – Wewalaarachchi, Honeywell and BACnet

The third factor under *Graham* necessarily involves an analysis of what the references and claims teach, **and what is missing**, and “requires a comparison of the properly construed claim to the prior art.” *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1332 (Fed. Cir. 2010). If a Petition fails to identify the differences between the prior art references and the claimed invention—*i.e.*, identify the missing elements from the references—then the Petitioner has necessarily failed to establish a *prima facie* case of obviousness, and the Petition should be denied.

Apple, Inc. v. ContentGuard Holdings, Inc., IPR2015-00355 Paper 9, p. 9 (P.T.A.B. June 26, 2015) (finding no reasonable likelihood of prevailing because “the Petition does not identify sufficiently the differences between the claimed invention and the prior art, or how the prior art teachings are to be modified or combined, if at all.”).

Ground 1 of the Petition relies on the combination of Wewalaarachchi, Honeywell and BACnet. In its analysis, however, Alarm.com chooses to compare the claims, not to the references individually, but to a hypothetical system “containing the teachings of Wewalaarachchi, Honeywell and BACnet.” (Pet., p. 15 (referring to the combined system as the “Object-Oriented BMS”).) Subsequently, Alarm.com proceeds to simply claim that the “Object-Oriented BMS” discloses each and every feature of independent claims 1, 22, 42 and 43. (Pet., pp. 15, 17 (“[t]he interface unit, the ‘message generating mechanism,’ and the communication of messages to a remote computer server are each disclosed by the references making up the Object-Oriented BMS”), 21-22 and 28 (“The Object-Oriented BMS disclosed ‘normalizing’ incoming messages using a structure equivalent to a ‘normalization module,’ storing normalized incoming messages, and basing outgoing exception messages on normalized incoming messages”).)

However, at no point in its discussion of Ground 1 does Alarm.com or Mr. Zatarain identify the differences between at least Wewalaarachchi (the presumed primary reference) and the claims—*i.e.*, identify the missing elements from Wewalaarachchi. And at no point in its discussion does Alarm.com specifically state which secondary reference is being used to cure that missing element from Wewalaarachchi. This haphazard approach to establishing a *prima facie* case of

obviousness is diametrically opposed to the bedrock principles established in

Graham. Therefore, the Board should deny institution of the Petition on Ground 1.

2. Ground 2 – Wewalaarachchi, Honeywell, BACnet and Levac

Ground 2 of the Petition relies on the combination of Wewalaarachchi, Honeywell, BACnet and Levac. Ground 2 is primarily an exact replication of Ground 1, albeit with an initial overview of Levac and a general discussion of how Levac compares to Wewalaarachchi. The Petition alleges that “Wewalaarachchi and Levac disclosed overlapping, but not identical, functionalities concerning user notification,” and because of this “it would have been obvious to utilize the teachings of Levac in implementing the BMS.” (Pet., pp. 48-49.) However, this comparison between Wewalaarachchi and Levac does not amount to identifying the differences between the prior art references, or identifying the differences between Wewalaarachchi **and the claimed invention**, before discussing what a secondary references teaches, as required by *Graham*. *Graham* 383 U.S. 1 at 17.

At most, Alarm.com merely identifies *general* deficiencies of Wewalaarachchi: that Wewalaarachchi “does not expressly teach the particulars of how notification messages are generated and sent to different types of user devices...” and “[does] not expressly disclose the particulars of the data structure that holds the[] categories of information” (Pet., pp. 44 and 46). But, the Petition

does not explain how these *general* deficiencies of Wewalaarachchi correspond to the claimed invention. In other words, the Petition does not identify which, if any, claim element is missing from Wewalaarachchi due to these deficiencies.

Instead, Vivint and the Board are left guessing whether Alarm.com intended for these two statements about Wewalaarachchi to be an identification of a missing claim element, or if Alarm.com simply identified these general deficiencies as an alleged motivation from combining Levac and Wewalaarachchi. (Pet., p. 44 (“**Because** Wewalaarachchi does not expressly teach the particulars of how notification messages are generated and sent to different types of user devices, **it would have been obvious to incorporate the more specific teachings of Levac ...**”).) And as the Board has previously held that “[a] brief must make all arguments accessible to the judges, rather than ask them to play archeologist with the record.” *Ariosa Diagnostics v. Verinata Health, Inc.*, IPR2013-00276, Paper 43, pp. 16-17 (P.T.A.B. Oct. 23, 2014), citing *DeSilva*, 181 F.3d 865 at 866-67.

As a result, neither the Petition, nor Mr. Zatarain’s declaration, identify the differences between the prior art references presented in Ground 2 and the claimed invention—*i.e.*, identify the missing elements from the references of Ground 2. This haphazard approach to establishing a *prima facie* case of obviousness is diametrically opposed to the bedrock principles established in *Graham*, and thus the Board should deny institution of the Petition on Ground 2.

If the Board instead deems that Alarm.com’s identification of Wewalaarachchi’s general deficiencies meets the third factual inquiry under *Graham* then this identification must necessarily constitute an admission that the “Object-Oriented BMS” of Ground 1—“containing the teachings of Wewalaarachchi. Honeywell and BACnet”—is deficient with respect to at least one claim element. (Pet., p. 15.) As such, the Board would be left with the inescapable conclusion that it should deny institution of the Petition on Ground 1.

D. Alarm.com Relies on Impermissible Hindsight and Fails to Account for Change of Operation of the Primary Reference

Alarm.com has also failed to meet the minimum threshold showing that it is likely to prevail in proving either of its grounds of obviousness, because Alarm.com failed to provide sufficient obviousness rationales. Alarm.com has strayed from the bedrock principles of obviousness set forth in *Graham* and reaffirmed by the Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). Indeed, these *Graham*’s factual inquiries must be tied together by “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). “General principles on what *may* constitute a supporting rationale cannot substitute for specific application of those principles to

the facts.” *TRW Auto. U.S. LLC v. Magna Elec. Inc.*, IPR2014-00263, Paper 15, p. 15 (P.T.A.B. Jun. 26, 2014).

Moreover, the Supreme Court has also held that “a patent composed of several elements 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. Instead, it is important to identify reasons that would have prompted a PHOSITA to combine the elements in the way the claimed invention does. *Id.* The Court stated “[t]his is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.” *Id.* at 418-19.

Here, the Petition simply did not put forth sufficient fact-based analysis to support the proposed combinations. First, Alarm.com alleges that Wewalaarachchi can be combined with Honeywell simply because “the system of Wewalaarachchi could be used with a wide variety of monitored devices, including building equipment, and was intended to be used with prior art systems” and that “[o]ne such system is the system taught by Honeywell—it is a natural choice because Honeywell was (and still is) one of the leading manufacturers of building management systems.” (Pet., p. 12.) Alarm.com then alleges that “BACnet was an object oriented-protocol, and as such, it would have been trivial for one of skill in the art to incorporate its teachings into the combined system of Wewalaarachchi

and Honeywell.” (*Id.*, p. 14.) However, Alarm.com merely stating that Wewalaarachchi could be used with a wide variety of monitored devices, such as those disclosed in Honeywell, and that it would have been trivial to add the teachings of BACnet to the resulting combination does not amount to an identification of the reasons that would have prompted a PHOSITA to combine the elements in the way the claimed invention does. *KSR*, 550 U.S. at 418-19.

Instead, these statements amount to nothing more than unsupported attorney argument, which is impermissible. *See id.* Additionally, Mr. Zatarain’s statements regarding the combinability of Wewalaarachchi, Honeywell, and BACnet lack corroborating evidence, and are thus similarly impermissible. *See id.*

Therefore, Alarm.com has failed to provide sufficient obviousness rationales to support its proposed combination of Wewalaarachchi, Honeywell and BACnet. And because both of Alarm.com’s grounds of unpatentability rely on the above explanation for combining these references, Alarm.com has failed to meet the minimum threshold requirement for showing that it is likely to prevail in proving either of its grounds of unpatentability.

1. Alarm.com Provided No Motivation to Combine the Asserted References Absent Impermissible Hindsight

Even if the above explanations did constitute sufficient rationales for combining Wewalaarachchi, Honeywell and BACnet, which they do not, the

Petition is still deficient because Alarm.com's explanations are predicated on impermissible hindsight.

The Federal Circuit has held that “[w]hen prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself,” in other words, “[t]here must be ‘something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.’” *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed. Cir. 1985). Therefore, when evaluating a combination of prior art references for the purpose of determining obviousness under 35 U.S.C. § 103, “[t]he invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.” *Id.* at 1138. These requirements remain true even post-*KSR*: “[t]he question is not whether the combination was obvious to the patentee but whether the combination was obvious to a person of ordinary skill in the art.” *KSR*, 550 U.S. at 420.

Here, Alarm.com's stated rationale for combining Honeywell with Wewalaarachchi is that “the inventors of Wewalaarachchi intended for one of skill in the art to read the specification in light of known BMS and SCADA systems,” such as the conventional systems disclosed in Honeywell. (Pet., p. 13.) And as such, Alarm.com alleges that a PHOSITA would understand that Honeywell's

sensors and controllers could be used in place of Wewalaarachchi's "external device network." (*Id.*) But, Alarm.com does not explain *why* a PHOSITA would have replaced Wewalaarachchi's "external device network" with the conventional sensors and controllers used in Honeywell when the inventors of Wewalaarachchi—who were allegedly aware of Honeywell—specifically choose to implement a different solution from that of Honeywell. Without such an explanation, Alarm.com could have only ended up with the proposed combination of Wewalaarachchi and Honeywell by using the claimed invention as a "blueprint," which necessarily constitutes impermissible hindsight. *Interconnect Planning*, 774 F.2d at 1138.

2. The Proposed Combination Would Have Fundamentally Changed the Principle of Operation of Wewalaarachchi

In addition to Alarm.com's flawed rationales for combining Wewalaarachchi, Honeywell and BACnet, such a proposed combination would have fundamentally changed the principle of operation of Wewalaarachchi. As such, the suggested combination of Wewalaarachchi, Honeywell and BACnet is improper. *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959) (If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious). In fact,

Alarm.com’s attempt to combine these references is in direct contrast to Federal Circuit precedent for yet another reason. Indeed, the Federal Circuit has held that when the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate,” then such a combination of references is improper. *Ratti*, 270 F.2d 810 at 813.

Here, Wewalaarachchi’s alleged server is specifically designed to receive “real time data” from its “external device network” (Wewalaarachchi, 7:17-20 and 8:22-25), perform a “mapping operation” of the data “(e.g., averaging, standard deviation, trend analysis) ...” (*id.*, 8:48-9:12), and perform automation operations based on the resulting derived real time data (*id.*, 19:16-33). Therefore, Wewalaarachchi discloses a server-centric system where the determination of exception conditions occur at the server based on received “real time data.” Conversely, Honeywell discloses a distributed system where predetermined “alarms” are detected at the distributed controllers and subsequently sent to the server. (Honeywell, 1204.0200-01 (“[c]ritical alarms can be programmed at the remote to dial the central system immediately”).)

As a result of these over-arching differences, in order for Wewalaarachchi and Honeywell to be able to be combined, Wewalaarachchi’s server would need to

undergo “substantial reconstruction and redesign” to be able to determine when to perform automation operations when preconfigured alarms are received instead of real time data. *Ratti*, 270 F.2d 810 at 813. Indeed, a PHOSITA would understand that each of Wewalaarachchi’s “communication gateway 202” (configured to convert real time data into a standardized format), “application cells 204” (configured to transform the standardized real time data), and the user interfaces (configured to receive user notification preferences based on the transformed real time data) would need to be substantially redesigned to handle Honeywell’s alarms, thereby rendering the proposed combination of references improper.

Because the proposed combination of Wewalaarachchi, Honeywell and BACnet would have fundamentally changed the principle of operation of Wewalaarachchi, such a combination is improper. *Id.*

E. The Proposed Combination in Ground 1 Fails to Meets All the Claim Features of Claims 1-3, 22-24, 26, 30, 32, 42 and 43

The Board should not institute trial on Ground 1—that the combination of Wewalaarachchi, Honeywell and BACnet (referred to in the Petition as the “Object-Oriented BMS”) renders claims 1-3, 22-24, 26, 30, 32, 42 and 43 as obvious—because Alarm.com did not establish a reasonable likelihood that the

proposed combination of references renders those challenged claims obvious.³ As discussed in greater detail below, the alleged Object-Oriented BMS fails to disclose at least:

1. “*a first memory on which equipment identification codes of all monitored equipment are stored*” and “*a second memory in which communication device identification codes of all of said user-defined communication remote devices are stored,*” as recited in claim 26; and
2. “*wherein said interface unit periodically generates a normal status message if said sensor to which said interface unit is connected detects a normal status condition indicative of proper operation of said respective piece of equipment to which said sensor is connected,*” as recited in claim 30.

³ As discussed in Section III.C.2, if the Board deems that Alarm.com’s identification of Wewalaarachchi’s *general* deficiencies in Ground 2 meets the third factual inquiry under *Graham* (determining the differences between the claimed invention and the prior art), then this identification must necessarily constitute an admission that the “Object-Oriented BMS” of Ground 1 is deficient with respect to at least one claim element. As such, the Board would be left with the inescapable conclusion that it should not institute trial on Ground 1.

- 1. The Alleged Object-Oriented BMS fails to disclose “a first memory on which equipment identification codes of all monitored equipment are stored” and “a second memory in which communication device identification codes of all of said user-defined communication remote devices are stored” as recited in claim 26**

Putting aside the fact that Alarm.com’s claim chart for claim 26 improperly provides bare citations and quotations to the applied references without any supporting explanations (Section II.D), Alarm.com appears to allege that Wewalaarachchi’s object server 206 can be configured to store the alleged “equipment identification codes” and “communication device identification codes.” Even if object server 206 could be configured in this manner, storing both the alleged “equipment identification codes” and “communication device identification codes” within the object server 206 would still fail to meet the requirements of the claim—*i.e.*, that the two code types are stored in two different memory devices. Indeed, the Federal Circuit has held that distinctly recited limitations are usually interpreted as distinct structures. *Becton, Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (“Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented invention.”) (citations and internal quotation marks omitted). Accordingly, the Board should not institute *inter partes* review of claim 26 based on the alleged Object-Oriented BMS.

2. **The Alleged Object-Oriented BMS fails to disclose “wherein said interface unit periodically generates a normal status message if said sensor to which said interface unit is connected detects a normal status condition indicative of proper operation of said respective piece of equipment to which said sensor is connected” as recited in claim 30**

The Petition alleges that the Object-Oriented BMS discloses the claimed “*normal status message*” because Honeywell discloses that “[t]rend sample requirements are usually set-up in the controller and automatically reported to the BMS thereafter.” (Pet., p. 39.) However, the data that is sent from the distributed controllers to Honeywell’s alleged server is not compiled into a “trend report” until it reached the server. (Honeywell, 1204.0201.) Wewalaarachchi similarly discloses that the generated real time data is not analyzed (*e.g.*, “averaging, standard deviations, trend analysis”) until it reaches the alleged server. (Wewalaarachchi, 8:63-9:12.) Thus, a determination as to whether the data generated at the remote devices is indicative of proper operation of a piece of monitored equipment cannot be made until it is processed by at the server.

Additionally, the alarms generated by Honeywell’s controllers cannot equate to the claimed “*normal status message*” because, as Alarm.com suggests, the alarms are indicative of an exception message. Similarly, BACnet’s “Status_Flags” are not the claimed “*normal status message*” because they merely indicate faulty operation (*i.e.*, IN_ALARM, FAULT, OVERRIDDEN, OUT-OF-SERVICE).

(BACnet, 1205.0167.) And BACnet’s “Binary Input Object Type” is not the claimed “*normal status message*” because it merely indicates whether the monitored device is on or off, not whether it is on **and** functioning normally. (*Id.*, 1205.0167 and Ex. 1207, ¶89.)

Accordingly, the Board should not institute *inter partes* review of claim 30 based on the alleged Object-Oriented BMS.

F. Alarm.com Fails to Establish that the Combination in Ground 2 Renders Obvious Claims 1-3, 22-24, 26, 30, 32, 42 and 43

The Board should not institute trial on Ground 2—that the combination of Wewalaarachchi, Honeywell, BACnet and Levac renders claims 1-3, 22-24, 26, 30, 32, 42 and 43 as obvious—because Alarm.com did not establish a reasonable likelihood that this combination of references renders the challenged claims obvious.

As discussed in Section III.C.2 above, Ground 2 is primarily an exact replication of Ground 1, albeit with an initial overview of Levac and a general discussion of how Levac compares to Wewalaarachchi. However, Alarm.com does not provide any explanation as to *how* or *why* Levac could be combined with either Honeywell or BACnet. As such, Alarm.com has failed to provide sufficient obviousness rationales to support its proposed combination of Wewalaarachchi, Honeywell, BACnet and Levac. *KSR*, 550 U.S. at 418.

In the event that the Board determines that the Petition's discussion of how Levac compares to Wewalaarachchi constitutes sufficient rationale to add Levac to the combined system of Wewalaarachchi, Honeywell and BACnet, then Levac's incorporation should be limited to its discussion of .msa files. Specifically, the Petition alleges that "Wewalaarachchi and Levac disclosed overlapping, but not identical, functionalities concerning user notification," and because of this "it would have been obvious to utilize the teachings of Levac in implementing the BMS." (Pet., pp. 48-49.) However, the only deficiency that Alarm.com identifies for Wewalaarachchi is its failure to "expressly disclose the particulars of the data structure that holds the[] categories of information" relating to "trigger notification, the content of the notification, the types of devices that receive notification (telephone versus pager), and the specific device contact numbers." (*Id.*, p. 46.) The Petition then alleges that "[b]ecause Levac's .msa file has fields corresponding to each of these categories, it would have been obvious to use Levac's .msa file (or an equivalent structure) for this purpose." (*Id.*)

Because the Petition only identifies this limited deficiency in Wewalaarachchi, and because it is stated that only Levac's .msa file is necessary to fill in the "particulars," any incorporation of Levac's teachings into the combination of Wewalaarachchi, Honeywell and BACnet should be limited to this feature. *DeSilva*, 181 F.3d at 866-67. Similarly, Alarm.com does not provide any

explanation of *how* or *why* any additional teachings of Levac—beyond the structure of the .msa file—could be combined with Wewalaarachchi, thereby further evidencing the fact that any incorporation of Levac’s teachings should be limited to the structure of the .msa file. *Id.* And when Levac’s incorporation is so limited, Levac fails to cure the deficiencies of the alleged Object-Oriented BMS identified in Ground 1 above.

Moreover, the only instances where Levac is specifically compared to the features recited in the challenged claims appear in the charts on pages 49-56 of the Petition, and these claim charts merely include bare citations and quotations, without any supporting explanation. This practice has consistently been disparaged by various other panels, and the Board should follow suit here. *See Cisco Systems*, IPR2014-00454, Paper 12 at 11; *also Denso Corp.*, IPR2013-00026, Paper 12 at 18.

G. Grounds 1 and 2 are Redundant

A petition with redundant grounds should articulate a meaningful distinction in terms of relative strengths and weaknesses with respect to the application of the prior art disclosures to one or more claim limitations. Without explanation, multiple grounds are “not all entitled to consideration” because they are “contrary to the regulatory and statutory mandates” for “just, speedy, and inexpensive”

resolution. *Liberty Mutual Ins. Co. v. Progressive Casualty Ins. Co.*, CBM2012-00003, Paper 7, p. 2 (P.T.A.B. Oct. 25, 2012).

Specifically, the petition should expressly explain “why [one reference] is more preferred for satisfying some elements, while [another reference] is more preferred for satisfying some other elements.” *Oracle Corp. v. Clouding IP*, IPR2013-00088, Paper 13, p. 3 (P.T.A.B. Jun. 13, 2013.) Merely pointing out differences between references has routinely been held to be insufficient to gain institution of redundant grounds. *Id.*

Here, Ground 1 alleges that claims 1-3, 22-24, 26, 30, 32, 42 and 43 are obvious over Wewalaarachchi, Honeywell and BACnet while Ground 2 alleges that the same claims are obvious over the same references, just with the addition of Levac. As mentioned above, the Petition does not identify how Levac is more preferred for satisfying some elements, while the other references are more preferred for satisfying other elements. Instead, the Petition merely performs a general comparison between Levac and Wewalaarachchi (while never tying any of these comparisons to the actual claim language), and concludes that “Wewalaarachchi and Levac disclosed overlapping, but not identical, functionalities concerning user notification.” (Pet., p. 48.) The redundancy between Grounds 1 and 2 is further exemplified by the fact that every claim chart presented

for Ground 2 refers back to the corresponding claim chart from Ground 1. (*Id.*, pp. 49-56.)

Thus, instituting trial on multiple redundant grounds would be contrary to the statutory mandates of speedy and inexpensive resolution, and would encourage this brand of overly burdensome petition drafting by other parties. Thus, the Board should consider only one ground.

H. Grounds 1 and 2 are Cumulative of the Grounds Stated in Co-Pending IPR2015-02004 and IPR2016-00116

Alarm.com challenges independent claims 1, 22, 42 and 43 of the '601 patent over Wewalaarachchi (as the presumed primary reference) in the instant Petition, and separately challenges the same independent claims over ScadaWare in co-pending IPR2015-02004 and over Shetty in IPR2016-00116. Such alternative proposals constitute horizontal redundancy. *Liberty Mutual*, CBM2012-00003, Paper 7 at 2.

ScadaWare, Shetty, and Wewalaarachchi are cumulative references. Indeed, Petitioner alleges that these three references each describe systems adapted to perform in substantially the same manner to achieve substantially the same result. (Pet., pp. 11-12 (“Wewalaarachchi disclosed an object-oriented software approach to ‘computer implemented supervisory control and data acquisition systems (SCADA).’ Status data is received from ‘an external device network 216 which

provides communication with various distributed field devices.’ This network of devices can include a variety of sensors or building equipment, and the data from the network is sent to a ‘central host computer,’ where it is made available to applications such as alarm and notification applications.”) (internal citations omitted); IPR2015-02004, Paper 1, p. 12 (P.T.A.B. Sept. 30, 2015) (Scadaware discloses “software, when integrated with hardware components, allowed users to monitor equipment at a remote location and to receive messages or alerts on a user-designated device if the equipment malfunctioned or deviated from acceptable parameters.”); IPR2016-00116, Paper 1, p. 10 (P.T.A.B. Oct. 30, 2015) (Shetty discloses “providing information relating to a machine to a user.... [by] sensing predetermined events relating to the machine and producing corresponding event signals, delivering the event signals to a remote site, comparing the event signals to a profile of events corresponding to the user, and delivering a notification signal to the user if the event signals match the profile”).)

Moreover, Alarm.com does not articulate meaningful distinctions between Scadaware, Shetty and Wewalaarachchi. Instead of analyzing the relative strengths and weaknesses of these references **as applied to the claims**, Alarm.com merely compares how the references allegedly disclose elements of the challenged claims *in different ways or in different levels of detail*. (Pet., pp. 56-59.) This failure is itself sufficient for the Board to conclude that the grounds are redundant. *ScentAir*

Techs., Inc. v. Prolitec, Inc., IPR2013-00179, Paper 18, p. 3 (P.T.A.B. Aug. 23, 2013) (“To avoid a determination that a requested ground of review is redundant of another requested ground, a petitioner must articulate a meaningful distinction in terms of relative strengths and weaknesses with respect to application of the prior art reference disclosures to one or more claim limitations.”). *Alarm.com* thus fails to expressly explain “why [one reference] is more preferred for satisfying some elements, while [another reference] is more preferred for satisfying some other elements.” *Oracle*, IPR2013-00088, Paper 13, Paper 13 at 3.

The redundancy between the instant Petition, the ScadaWare Petition, and the Shetty Petition is further exemplified by the fact that Mr. Zatarain’s declaration shows signs that his analysis was merely copied and pasted from his declaration supporting the Shetty Petition. (Ex. 1207, ¶121 (“The Petitioner’s tables, inserted below, show how each limitation of claims 1-3, 22-24, 26, 30, 32, and 42-43 of the ’601 Patent is taught by **the Shetty patent**. I have reviewed these tables in detail, and agree that they accurately set out attributes and features of **the Shetty patent** that renders obvious each and every element of each of these claims”).) Mr. Zatarain’s mistaken references to “the Shetty patent” when he actually means to refer to Wewalaarachchi is not surprising as Mr. Zatarain’s declarations in these three proceedings clearly do nothing more than present ScadaWare, Shetty and

Wewalaarachchi as distinct and separate alternatives. *Liberty Mutual*, CBM2012-00003, Paper 7 at 2.

The Board has previously declined to consider horizontally redundant prior art, particularly when the petitioner offers no meaningful distinction between the different prior art references. *Riverbed Tech., Inc. v. Parallel Networks, LLC*, IPR2014-01398, Paper 11, pp. 16-17 (P.T.A.B. Feb. 27, 2015) (declining to institute on a particular ground when it was “provided without explanation as to why it is better than or different from the [other] asserted grounds”); *Conopco, Inc. v. Proctor & Gamble Co.*, IPR2013-00505, Paper 9, p. 17 (P.T.A.B. Feb. 12, 2014); *Berk-Tek LLC v. Belden Techs. Inc.*, IPR2013-00057, Paper 21, p. 5 (P.T.A.B. May 14, 2013); *Google Inc. v. Intellectual Ventures II LLC*, IPR2014-00787, Paper 9, p. 21 (P.T.A.B. Nov. 24, 2014).

Because the Petition merely points out various differences between Scadaaware, Shetty, and Wewalaarachchi, without explaining how these directly impact the challenged claims, Alarm.com has not set forth sufficient grounds to gain institution of these redundant petitions.

As such, the instant Petition should be denied in light of its redundancy of the Petitions in co-pending IPR2015-02004 and IPR2016-00116, and because Scadaaware is more representative of the state of the art at the time of the invention. Indeed, Scadaaware states that it is intended to be a representation of the known

SCADAWARE systems available around the time of the invention of the '601 patent: “[t]his document provides basic information on the technical design and operational concepts of TEST INC. SCADAWARE systems. Information on the system hardware components, software features and system configuration options are presented at an Introductory level. The Intent is to acquaint technical users not familiar with the system with the features and benefits of the system in typical remote data acquisition situations.” (SCADAware, 1209.0007.)

IV. Conclusion

The Board should not institute trial on either of the grounds set forth in the Petition, because Vivint has sufficiently shown that Alarm.com has not established that the asserted references, either alone or in combination, render obvious 1-3, 22-24, 26, 30, 32, 42 and 43 of the '601 Patent.

Respectfully submitted,

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CERTIFICATION OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER**
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