

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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CARBYNE, INC.,  
Petitioner,

v.

TRITECH SOFTWARE SYSTEMS,  
Patent Owner.

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IPR2025-00959  
Patent RE50,016 E

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Before KEN B. BARRETT, NORMAN H. BEAMER, and LISA A.  
MURRAY *Administrative Patent Judges.*

MURRAY, *Administrative Patent Judge.*

DECISION  
Granting Institution of *Inter Partes* Review  
*35 U.S.C. § 314*

## I. INTRODUCTION

### *A. Background and Summary*

Carbyne, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting institution of *inter partes* review of claims 1, 5–9, 13–17, and 25–27 of U.S. Reissued Patent RE50,016 (“the ’016 patent”). Tritech Software Systems (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”).<sup>1</sup>

An *inter partes* review may be instituted only if “the information presented in the petition . . . and any [preliminary] response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). For the reasons given below, on this record, Petitioner has established a reasonable likelihood that it would prevail in showing the unpatentability of at least one of the challenged claims. Accordingly, we institute an *inter partes* review of the challenged claims on all grounds raised in the Petition.

### *B. Real Parties in Interest*

Petitioner identifies Carbyne, Inc. and its corporate parent Carbyne Ltd. as real parties in interest. Pet. 4. Patent Owner identifies Tritech Software Systems and its parent company, CentralSquare Technologies, LLC, as real parties in interest. Paper 3 (Patent Owner’s Mandatory Notices).

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<sup>1</sup> Patent Owner also filed a Request for Discretionary Denial (Paper 5) and a Reply Discretionary Denial Brief (Paper 9). Petitioner filed an Opposition to Patent Owner’s Request for Discretionary Denial (Paper 8) and a Sur-Reply in Opposition to Patent Owner’s Request for Discretionary Denial (Paper 10). On October 3, 2025, an Order issued denying Patent Owner’s Request for Discretionary Denial and referring the Petition to the Board. Paper 11.

*C. Related Matters*

Petitioner identifies the following pending litigation involving the '016 patent: *CentralSquare Technologies LLC v. Carbyne, Inc. et al.*, 1-24-cv-01497 (W.D. Tex.) (filed Dec. 4, 2024). Pet. 4.

*D. The '016 Patent*

The '016 Patent was reissued on June 18, 2024 and is entitled “SMS communication during emergencies.” It is a reissue of U.S. Patent No. 9,301,117, (issued Mar. 29, 2016), which relates to U.S. App. No. 13/972,843 (filed Aug. 21, 2013). Ex. 1001, code (64). The '016 Patent claims a system and method for short message service (SMS) communication during emergencies. An emergency operator texts a uniform resource locator (URL) link to an emergency caller for the purpose of obtaining that caller's location. The URL link connects to web resources that query the caller's mobile device and present the device's location information to the emergency operator. *Id.* at code (57), 1:24–26, 1:48–4:47.

*E. Illustrative Claim*

Petitioner challenges claims 1, 5–9, 13–17, and 25–27 of the '016 Patent. The independent claims are claim 1, a system claim, and claim 9, which claims a computer-implemented method and is similar in scope with claim 1. *Id.* at 15:10–57, 16:19–53. Claim 1, reproduced below with Petitioner's bracketed identifiers added (*see, e.g.*, Pet. 22–35), is representative of the challenged claims:

[1-p] A system configured to provide, to emergency operators, communication through textual messages, the system comprising:

[1-1] one or more processors configured to execute computer program modules, the computer program modules comprising:

- [1-2] a call reception module configured to receive incoming emergency voice calls being placed to an emergency call center through an emergency communications network from wireless mobile devices, the incoming emergency voice calls including a first voice call placed from a first wireless mobile device;
- [1-3] an outgoing message module configured to generate outgoing textual messages for transmission to wireless mobile devices from which incoming emergency voice calls are received such that a first outgoing textual message is generated for transmission to the first wireless mobile device based on the first voice call;
- [1-4] a transmission module configured to transmit the outgoing textual messages to the appropriate wireless mobile devices through a second communications network that is different than the emergency communications network such that the first outgoing textual message is transmitted to the first wireless mobile device through the second communications network;
- [1-5] a presentation module configured to present incoming emergency voice calls to emergency operators through a user interface, wherein the user interface includes a set of user-selectable options, and wherein the presentation module is further configured to receive user input from emergency operators to select one or more of the set of user-selectable options; and
- [1-6] a web-hosting module configured to host web resources configured to:
  - (i) query wireless mobile devices for location information; and
  - (ii) share, responsive to receipt of location information, received location information with the presentation module;
- [1-7] wherein the first outgoing textual message includes a uniform resource locator (URL) link to the web resources; and

[1-8] wherein the presentation module is further configured to present shared queried location information to emergency operators through the user interface.

Ex. 1001 at 15:10–57.

*F. Evidence*

Petitioner relies on the following patent evidence.

<b>Name</b>	<b>Patent Document</b>	<b>Exhibit</b>
Brooks	US 2002/0197977 A1	1005
Salafia	US 2010/0261492 A1	1007
Marr	US 2012/0190384 A1	1008

Petitioner relies on the following non-patent literature evidence.

<b>Name</b>	<b>Non-Patent Literature Title</b>	<b>Author</b>	<b>Exhibit</b>
SARLOC	“MRMap and SARLOC – Mobile ’phone Geolocation for Search and Rescue,” Proceedings of the GIS Research UK 20th Annual Conference, pp. 7–10 (April 2012)	Russell Hore	1006

Petitioner also relies on a Declaration of Gerald Christensen in support of the Petition. Ex. 1004.

*G. Prior Art and Asserted Grounds*

Petitioner asserts that claims 1, 5–9, 13–17, and 25–27 would have been unpatentable on the following grounds:

<b>Claim(s) Challenged</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>
1, 5–9, 13–16	103	Brooks, SARLOC
1, 5–9, 13–17, 25–27	103	Salafia, Marr
1, 5–9, 13–17, 25–27	103	Brooks, SARLOC, Salafia

## II. ANALYSIS

### *A. Legal Standards*

An invention is not patentable if “the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.” 35 U.S.C. § 103. The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and, (4) where in evidence, so-called secondary considerations, including commercial success, long-felt but unsolved needs, and failure of others. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966).

When evaluating a combination of teachings,

[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

*KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Moreover, “[w]here a party argues a skilled artisan would have been motivated to combine references, it must show the artisan would have had a reasonable expectation of success from doing so.” *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1360–61 (Fed. Cir. 2017) (internal quotation marks omitted).

*B. Level of Ordinary Skill in the Art*

Determining whether an invention would have been obvious under 35 U.S.C. § 103 requires resolving the level of ordinary skill in the pertinent art at the time the invention was made. *Graham*, 383 U.S. at 17. The level of skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The person of ordinary skill in the art is a hypothetical person who knows the relevant art. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). Factors to consider include the types of problems encountered in the art, the sophistication of the technology, and the educational level of active workers in the field. *Id.* One or more factors may predominate. *Id.*

Petitioner asserts that one of ordinary skill in the field of the '016 Patent would have had:

a degree in computer science or computer engineering, along with 2 years of professional experience working with telecommunications systems, or an equivalent level of skill, knowledge, and experience. . . . This POSITA would have been aware of and generally knowledgeable about the standard features and functionality of emergency calling, geolocation, and text messaging systems.

Pet. 15. For the purposes of its Preliminary Response, Patent Owner “does not challenge that definition.” Prelim. Resp. 5. We find Petitioner’s formulation to be consistent with the evidence of record at this stage of the proceedings, including the asserted prior art and the '016 Patent, and we adopt and apply that definition for purposes of this Decision.

*C. Claim Construction*

We interpret claims in the same manner used “in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the

ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b). When applying that standard, we interpret the claim language as it would have been understood by one of ordinary skill in the art in light of the specification. *Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1279–80 (Fed. Cir. 2017). Thus, we give claim terms their ordinary and customary meaning as understood by an ordinarily skilled artisan. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

During the reissue proceedings that led to the ’016 Patent, Patent Owner represented that “the ’016 patent claim limitations requiring a ‘call reception module,’ ‘presentation module,’ ‘outgoing message module,’ and ‘transmission module’ are not means-plus-function limitations and instead require only “computer program modules that are executed by processors, rather than a generic description for software or hardware.” Ex. 1003, 156–169; *see* Pet. 14. For the purposes of these proceedings only, Petitioner accepts these representations and asserts that “[n]o terms require further construction and all terms can be afforded their plain and ordinary meaning.” *Id.* at 14–15. For the purposes of its Preliminary Response, Patent Owner agrees with Petitioner. Prelim. Resp. 5.

After reviewing the parties’ arguments and evidence, we determine that no express constructions of any terms are needed for us to render our Decision on Institution. *See, e.g., Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

*D. Ground 1: Obviousness over Brooks (Ex. 1005) and SARLOC (Ex. 1006)*

Petitioner asserts that claims 1, 5–9, and 13–16 are unpatentable as obvious over the combination of Brooks and SARLOC. Pet. 21–39. Patent Owner does not contest Petitioner’s mapping of the cited prior art to the limitations in any of the challenged claims, but argues that Petitioner has not shown that one of ordinary skill in the art would have been motivated to modify Brooks with the teachings of SARLOC. Prelim. Resp. 7–18.

*1. Scope and Content of the Prior Art*

*a. Brooks (Ex. 1005)*

Brooks is a publication of U.S. Patent Application 09/892,133, “Control and messaging during emergency calls,” published on December 26, 2002. Ex. 1005, code (43). Petitioner relies on Brooks to teach “an emergency communication system that allows a dispatcher to send text messages to a caller. The texts can request GPS location information.” Pet. 21. Specifically, Brooks discloses that “[a]n enhanced emergency call system allows for the emergency dispatcher to capture and control the call. . . . The dispatcher may also use messaging services to communicate with the caller. The caller may respond using the messaging services, or the dispatcher may prompt the caller for a response.” Ex. 1005 ¶ 5. “The dispatcher may also use the messaging system to query the user to pinpoint the location of the user for rescue purpose[s].” *Id.* ¶ 23. If location information such as global positioning, triangulation, etc. is already available, the dispatcher may begin with that information. *Id.* For example, “the position information obtained from the mobile station 106 may indicate the user is in a house. The dispatcher may then use the messaging system to

determine the precise location in the house. Such information may then be used by fire, police, or other rescue personnel to aid the caller.” *Id.*

*b. SARLOC (Ex. 1006)*

SARLOC is an article authored by Russell L. Hore for the 2012 GISRUK (“Geographical Information Science Research UK”) conference. *See* Ex. 1012, ¶¶ 7–8. “The conference occurred from April 11–13, 2012 at Lancaster University. *Id.* ¶ 13; Pet. 16. Petitioner asserts that the SARLOC article was published by being included in “the complete GISRUK 2012 conference proceedings publication, which was made available for download on multiple websites immediately following the conference.” Pet. 17; Ex. 1012, ¶¶ 14–15.

The SARLOC article discusses a “system that can be used to locate ‘lost’ people using the geo-location API of the web browser on many ‘smartphones’ without having to install any software.” Ex. 1006, 1. Petitioner relies on SARLOC to teach that “text messages sent by such a system can include a URL that directs a caller’s phone to a website that collects the required GPS location information.” Pet. 22. As the SARLOC article explains:

SARLOC does not require any applications to be installed on the ‘phone and uses the geo-location API of the ‘phone’s web browser to obtain [its] location. The lost person only needs to browse to the SARLOC web page, the URL of which is sent to the person as an SMS message. SARLOC uses both PHP and JavaScript to request the ‘phones location and to pass it to a web based database which can then be interrogated by the [emergency responder].”

Ex. 1006, 2. The obtained location information can be displayed graphically in a user interface as a map. *Id.*; *see* Pet. 17–18.

*2. Analysis of Petitioner’s Mapping of the Prior Art to the Claims*  
*a. Independent Claims 1 and 9*

As noted above, Patent Owner does not contest Petitioner’s mapping of the teachings of Brooks and SARLOC to the limitations of the challenged claims. We have conducted an independent review of the claim mapping set forth in the Petition, and we conclude that Petitioner has provided “[a] full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence[.]” *See* 37 C.F.R.

§ 42.22(a)(2). For example, for independent claim 1, Petitioner argues that both Brooks and SARLOC teach the content of the preamble. Pet. 22. Petitioner further argues in detail that both Brooks and SARLOC teach limitation [1-1]; that Brooks teaches limitations [1-2] through [1-5]; that the *combination* of Brooks and SARLOC teaches limitation [1-6]; that SARLOC teaches limitation [1-7]; and that both Brooks and SARLOC teach limitation [1-8]. *Id.* at 22–35. Petitioner provides a similar analysis for independent claim 9. *Id.*; *see also* Ex. 1004 ¶¶ 115–180.

We find Petitioner’s analysis of the challenged independent claims to be consistent with the evidence of record at this stage of the proceeding, including the asserted prior art and the Declaration of Gerald Christensen (Ex. 1004). Accordingly, we adopt and apply Petitioner’s undisputed claim mapping for purposes of this Decision.

*b. Dependent Claims 5–8, 13–16*

Petitioner offers a similarly undisputed analysis applying the teachings of Brooks and SARLOC to the additional limitations found in dependent claims 5–8 and 13–16. Pet. 36–37; Ex. 1004 ¶¶ 181–189. Following an independent review of Petitioner’s analysis, we adopt and

apply Petitioner's dependent claim mapping for the purposes of this Decision for the same reasons as those discussed above.

### *3. Analysis of the Motivation to Combine*

In an obviousness analysis, it is not enough for each limitation of the challenged claims to appear in one or more prior art references. To prevail, Petitioner must establish that "there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR*, 550 U.S. at 418. Petitioner must also establish that one of ordinary skill attempting the combination "would have had a reasonable expectation of success from doing so." *Arctic Cat*, 876 F.3d at 1360–61. Patent Owner argues that Petitioner has not done so. Prelim. Resp. 7–18.

#### *a. Petitioner's Contentions*

Petitioner acknowledges that "[w]hile Brooks' system uses messaging to obtain a caller's GPS location, Brooks does not detail exactly how this occurs." Pet. 37–38. Petitioner argues that "SARLOC provides this missing information" and that one of ordinary skill in the art would have been motivated to attempt to combine the teachings of the two references. *Id.* at 38; Ex. 1004 ¶¶ 190–193. Petitioner argues first that Brooks and SARLOC are both analogous art to the '016 Patent. "Like the '016 patent, both relate to systems for handling emergency calls." Pet. at 37. Petitioner next argues that the "similarity in purpose (both Brooks and SARLOC teach the collection of phone location), operation (both Brooks and SARLOC employ text messaging), and result (both Brooks and SARLOC relay location information to emergency service) would have provided a POSITA with a strong motivation to apply SARLOC's teachings to Brooks." *Id.* at 38; Ex. 1004 ¶ 194. Finally, Petitioner contends that SARLOC "does not

require the phone user to have significant technical skills[.]” and that “the system also employs existing database functionality to relay collected location information to emergency service providers.” Pet. 38. According to Petitioner, the fact that SARLOC does not require a caller to install any special-purpose software would further motivate one of ordinary skill in the art to add SARLOC’s teachings to the system taught by Brooks. Pet. at 38–39 (“existing smartphone functionality would be used to collect location information. . . . Moreover, Brooks’ system would be simplified.”); Ex. 1004 ¶¶ 195–198.

Concerning whether there would have been a reasonable expectation of success in making the proposed combination, Petitioner argues that “Brooks’ emergency management system already employs text messaging to communicate and specifically contemplates using the messaging system to query the user for the user’s location. SARLOC simply provides an example of one type of text message such a system can transmit[.]” Pet. 39; Ex. 1004 ¶ 199. Also, “Brooks’ system is intended to both collect user location information and display that information to an emergency dispatcher” and “a POSITA would understand that SARLOC facilitates this very thing.” Pet. 39; Ex. 1004 ¶ 200. Petitioner alleges that thus one of ordinary skill would have had “a more than reasonable expectation of success.” Pet. 39.

*b. Patent Owner’s Rebuttal*

Patent Owner disputes that one of ordinary skill would have had either a motivation to combine Brooks and SARLOC or a reasonable expectation of success in doing so. Prelim. Resp. 7–18. Patent Owner raises three arguments:

- (1) “The Petition’s argument relies on the supposition that a POSITA would discern a supposed deficiency in Brooks as to

how user location information is collected and provided to an emergency dispatcher. But the Petition cites nothing referring to ‘missing information’ in Brooks related to how a mobile devices location is obtained that would be recognized by a POSITA.” Prelim. Resp. 8–9.

(2) “The Petition further fails to show that the system resulting from the combination with SARLOC would have, on net, any beneficial or desirable advantages over Brooks’ original configurations.” Prelim. Resp. at 9.

(3) “[T]he Petition never shows how a POSITA, starting with Brooks’ system, would implement SARLOC’s method of obtaining a phone’s location using a URL into Brooks’ text messaging system.” Prelim. Resp. at 9.

We are not persuaded by Patent Owner’s arguments, for the reasons discussed below.

*i. First Argument*

Patent Owner contends that the Petition does not identify a deficiency in Brooks that would cause a person of ordinary skill in the art to look elsewhere. Prelim. Resp. 9. Patent Owner argues that “Brooks provides multiple examples of how a mobile device’s location can be obtained by dispatchers[,]” including global positioning. *Id.* at 11. “Petitioner does not provide any evidence that a POSITA would have believed Brooks to lack any important details (or contain any other deficiency) regarding how a mobile device’s location is obtained.” *Id.* Therefore, “Petitioner cannot show a deficiency and need for improvement that would prompt a POSITA to look to other references such as SARLOC for improvements to Brooks’ system.” *Id.* at 14 (internal quotation marks omitted).

To establish a motivation to combine multiple prior art references, it is not necessary to identify some deficiency in the primary reference that can only be remedied by combining that reference with another. The proposed

combination need not be an “improved” solution to the problem addressed in the primary reference. *See, e.g., Honeywell Int’l Inc. v. 3G Licensing, S.A.*, 124 F.4th 1345, 1355–56 (Fed. Cir. 2025) (Obviousness “does not require that a particular combination must be the preferred, or the most desirable, combination described in the prior art in order to provide motivation for the current invention.”); *see also KSR*, 550 U.S. at 420 (“[T]he problem motivating the patentee may be only one of many addressed by the patent’s subject matter.”).

The relevant question is not whether the proposed combination is the most desirable combination available. Rather, it is “whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of the claimed invention.” *Honeywell*, 124 F.4th at 1355 (citations omitted). Here, Petitioner has identified reasons why it would have been desirable to modify the system of Brooks to include the texted URL link of SARLOC: the caller would not need any special technical skills or equipment; existing smartphone functionality would be capable of collecting the location information; and SARLOC simply represents a specific example of a general concept taught in Brooks, that of exchanging location information through text messages. Pet. at 38–39. Because the claimed modification need only be a suitable option, rather than the “best” or “preferred” approach, Patent Owner’s argument is unpersuasive.

*ii. Second Argument*

Patent Owner’s second argument is that Petitioner has not shown that the proposed combination of Brooks and SARLOC would have any advantages over the original Brooks configuration. “Brooks discloses that a mobile device’s ‘position information,’ including ‘global positioning,’ can

be directly ‘obtained from the mobile station,’ . . . whereas obtaining the GPS location in SARLOC would require the emergency caller to first click a link to a website[.]” Prelim. Resp. 15. “Petitioner’s theory that ‘Brooks’ system would be simplified,’ fails, as SARLOC introduces multiple additional steps to obtain GPS location information that is already provided in Brooks’ system.” *Id.* at 16.

Patent Owner’s second argument is similar to its first, and fails for similar reasons. Petitioner does not need to show that replacing Brook’s generic text message with SARLOC’s message containing a URL link was an “improvement” in a categorical sense. Petitioner simply needs to show that SARLOC’s URL link was a suitable option. We preliminarily conclude that Petitioner has done so sufficiently for institution purposes.

Petitioner identifies certain benefits to adding the texted URL link of SARLOC to the system of Brooks: the caller would not need special technical skills or equipment, and the Brooks system would be simplified from the caller’s point of view. Pet. at 38–39; Ex. 1004 ¶¶ 195–198. In addition, Petitioner has shown that there was a known problem in the art of determining a caller’s geolocation (*see, e.g.*, Ex. 1005 ¶ 23), that SARLOC’s URL link helped address that issue (*see* Ex. 1006, 2), and that combining the teachings of Brooks and SARLOC was not beyond the skill of an ordinary artisan (*see* Pet. 39; Ex. 1004 ¶ 199). This is sufficient to show a motivation to combine. *See Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1381 (Fed. Cir. 2023). Accordingly, Patent Owner’s second argument is also unpersuasive.

*iii. Third Argument*

Patent Owner’s final argument is that there would have been no reasonable expectation of success because Petitioner never shows *how* a POSITA would implement SARLOC’s URL-based method of obtaining a phone’s location into Brooks’ text messaging system. Patent Owner argues that “Petitioner’s assertion assumes without support that it would have been ‘straight-forward’ to implement the methods disclosed in SARLOC[.]” Prelim. Resp. 16. Patent Owner argues that “SARLOC actually does require ‘special purpose software.’” *Id.* at 17. In particular, the obtained location information in SARLOC is “pass[ed] to a web database,” and “displayed graphically in a user-interface on a map[, specifically in] MRMap, ‘a Windows™ application developed using C+++[.]’” *Id.* Patent Owner concludes that thus, “a POSITA would not have a ‘straight-forward, user-friendly way to relay location information to emergency dispatchers[.]’” *Id.* (quoting Pet. 39).

We are not persuaded by Patent Owner’s argument. In SARLOC, the MRMap software system that Patent Owner describes is a portion of an emergency response system that is used by the call *handler* and by emergency responders, not by the emergency caller. *See* Ex. 1006, 1–2. The proposed modification of Brooks according to SARLOC is a modification of the *caller’s* user experience, which SARLOC would simplify. In SARLOC, the emergency caller merely needs to be able to respond to text messages “by simply using the smartphone they have made the rescue call with.” *Id.* at 3.

The evidence currently before us suggests that it would not be difficult for a person of ordinary skill in the art to modify Brooks’ text messaging system to implement SARLOC’s method of obtaining a phone’s

location by providing a caller with a URL link. As Petitioner argues, “Brooks’ emergency management system already employs text messaging to communicate and specifically contemplates using the messaging system to query the user for the user’s location.” Pet. 39; Ex. 1004 ¶ 199. “SARLOC simply provides an example of one type of text message such a system can transmit: a message with a link that collects phone location.” Pet. 39. We preliminarily determine, therefore, based on the current state of the record, that one of ordinary skill in the art would have had a reasonable expectation of success in modifying Brooks according to the teachings of SARLOC.

In sum, we are not persuaded that the Petition “fails to articulate a non-conclusory rationale for why a POSITA would be motivated to combine” Brooks and SARLOC. *See* Prelim. Resp. 1. Patent Owner has raised no other reason why we should reject Ground 1 of the Petition. On the present record, based on all of the evidence currently before us, we find that Petitioner has established a reasonable likelihood that it would prevail in showing that the combination of Brooks and SARLOC renders each challenged claim of the ’016 Patent unpatentable for obviousness.<sup>2</sup>

*E. Ground 2: Obviousness over Salafia (Ex. 1007) and Marr (Ex. 1008)*

Petitioner asserts that claims 1, 5–9, and 13–17, and 25–27 are unpatentable as obvious over the combination of Salafia and Marr. Pet. 39–69. Once again, Patent Owner does not contest Petitioner’s mapping of the

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<sup>2</sup> We note that at this juncture, neither Petitioner nor Patent Owner has presented any evidence of objective indicia of nonobviousness. The ultimate legal determination of whether the claimed combination would have been obvious to an ordinary artisan will depend on several factors, including objective evidence of nonobviousness, if present. *See Arctic Cat*, 876 F.3d at 1361; *Graham*, 383 U.S. at 17–18.

cited prior art to the limitations in any of the challenged claims, but argues that one of ordinary skill in the art would not have been motivated to modify Salafia with the teachings of Marr. Prelim. Resp. 18–25.

*1. Scope and Content of the Prior Art*

*a. Salafia (Ex. 1007)*

Salafia is a publication of U.S. Patent Application 12/824,967, “Integrated call handler and email systems and methods,” published on October 4, 2010. Ex. 1007, code (43). “Salafia discusses an emergency call system—including the hardware and software components such a system uses—at length.” Pet. at 70; Ex. 1007, Fig. 2. Specifically, Petitioner relies on Salafia to teach “an emergency communication system that allows a dispatcher/call handler to send text messages to a caller. The texts can include URLs. The system is also able to obtain caller GPS location information.” Pet. 39. Salafia allows the handler to send an “MMS” (or other electronic text message) to a calling “communication device.” *Id.* at 19; Ex. 1007 ¶¶ 7–8. “The call handler may also send information to the caller, such as, for example, . . . Uniform Resource Locators (URLs).” Ex. 1007 ¶ 11. The caller can respond to the handler’s message by providing, for instance, “visual information . . . regarding the exact location of the caller.” Pet. 19; Ex. 1007 ¶ 11. This information could be, for example, a photo of the nearest street sign. *See* Ex. 1007, Fig. 5. Salafia Figure 5 depicts the user interface provided to the call handler, which can display a video or image transmitted from the emergency caller to the call handler. *Id.*

*b. Marr (Ex. 1008)*

Marr is a publication of U.S. Patent Application 13/356,214, “Management of roadside service requests,” published on July 26, 2012.

Ex. 1008, code (43). In Marr, “[a] customer in need of roadside service can submit a roadside service request through a mobile web site or mobile application, and can provide location information through the smart phone’s GPS receiver.” *Id.* code (57). Petitioner relies on Marr to provide “an example of how a system like that in Salafia would go about obtaining [location] information: the system sends a text to the caller with a URL that directs a caller’s phone to a website that collects GPS location.” Pet. 39–40. Marr teaches that the call “dispatcher” can “provide a URL” to the customer via “SMS or other text message.” Ex. 1008 ¶¶ 37–38. When clicked, the URL directs the customer’s phone to a “web server” that hosts a “website” that “request[s] GPS data from the client device.” *Id.* ¶ 40. The obtained “GPS location” data can then be provided to the dispatcher by the device “while the customer is [still] on the phone with the dispatcher.” *Id.* ¶ 37; Pet. 21. Marr teaches that “[s]uch a feature may be particularly useful, for example, whenever a customer is not particularly technologically savvy about the data-related functions of his or her mobile device and/or would prefer to talk to a dispatcher rather than submit a service request via a mobile website.” Ex. 1008 ¶ 37.

## *2. Analysis of Petitioner’s Mapping of the Prior Art to the Claims*

### *a. Independent Claims 1 and 9*

Patent Owner does not contest Petitioner’s mapping of the teachings of Salafia and Marr to the limitations of the challenged claims. As with Ground 1, we have conducted an independent review of the claim mapping set forth in the Petition, and we conclude that Petitioner’s analysis is sufficient for the purposes of institution. Here, for independent claim 1 Petitioner argues that Salafia teaches the content of the preamble. Pet. 40.

Petitioner further argues in detail that Salafia teaches limitations [1-1] through [1-5]; that the *combination* of Salafia and Marr teaches limitation [1-6]; and that both Salafia and Marr teach limitations [1-7] and [1-8]. *Id.* at 40–59. Petitioner provides a similar analysis for independent claim 9. *Id.*

For Ground 2, we find Petitioner’s analysis of the challenged independent claims to be consistent with the evidence of record at this stage of the proceeding, including the asserted prior art and the Declaration of Gerald Christensen (Ex. 1004). Accordingly, we adopt and apply Petitioner’s undisputed claim mapping for purposes of this Decision.

*b. Dependent Claims 5–8, 13–17, and 25–27*

Petitioner offers a similarly undisputed analysis applying the teachings of Salafia and Marr to the additional limitations found in dependent claims 5–8, 13–17, and 25–27. Pet. 59–66. After an independent review of Petitioner’s analysis, we adopt and apply Petitioner’s dependent claim mapping for purposes of this Decision for the same reasons as those discussed above.

*3. Analysis of the Motivation to Combine*

In response to Ground 2 of the Petition, Patent Owner again argues that Petitioner has not established “an apparent reason to combine the known elements in the fashion claimed by the patent at issue” or shown that there would have been a reasonable expectation of success in doing so. Prelim. Resp. 18–25; *see KSR*, 550 U.S. at 418; *Arctic Cat*, 876 F.3d at 1360–61.

*a. Petitioner’s Contentions*

Petitioner contends that one of ordinary skill would have been motivated to modify the emergency response system of Salafia with Marr’s use of text messages containing URL links that transmit a geolocation when

clicked by an emergency caller. Pet. 66–69. Petitioner argues that “Salafia’s system is meant to obtain GPS information from caller cell phones. But Salafia does not explain how this occurs.” Pet. 67; *see* Ex. 1007, ¶ 61 (“The location data may, for example, be based on cell tower 220 location and cellphone signal attributes or on GPS information obtained from the cell phone, the cellular services provider or some other source.”). Petitioner contends that “[t]hus, a POSITA implementing Salafia would have considered other references discussing this required functionality. . . . A POSITA would have recognized Marr to be one such reference. Just as Salafia requires, Marr’s system allows a dispatcher to request and then obtain GPS location data from the caller’s phone.” Pet. 67; Ex. 1004 ¶¶ 331–333; Ex. 1008, 37 (“[T]he dispatcher [provides] a URL for the customer that, when accessed, will provide the user’s location to the service request system.”).

Petitioner also argues that “a POSITA would have recognized that Salafia and Marr have similar purposes, operation, and functionality.” *Id.* at 68. Petitioner further contends that modifying Salafia according to Marr’s system and procedure would have provided several benefits: the result would provide “very accurate location determination”; would “increase the accuracy and availability of information while putting fewer demands on [a caller’s] time, memory, and knowledge”; and would be “particularly useful ‘whenever a customer is not particularly technologically savvy about the data-related functions of his or her mobile device.’” *Id.* at 67–68 (quoting Ex. 1008 ¶ 38).

Finally, regarding a reasonable expectation of success, Petitioner argues that “[e]xtensive modification of Salafia’s system would not be required: phone GPS location would be obtained using web-browser and

GPS functionality that is already built into cell phones.” Pet. 68. “[A] POSITA would have recognized that Salafia’s system is not only able to request and collect the same type of GPS position information discussed in Marr, but already possesses the components required to do so.” *Id.* at 69.

*b. Patent Owner’s Rebuttal*

Patent Owner contests Petitioner’s explanation of why and how one of ordinary skill in the art would have been motivated to attempt the proposed combination by applying the same three arguments discussed above to the combination of Salafia and Marr. Prelim. Resp. 19–25. We are not persuaded by these arguments for the reasons already discussed. We make the following additional points for emphasis.

First, the relationship between Salafia and Marr is similar to the relationship between Brooks and SARLOC. As in Brooks, Salafia’s description of obtaining an emergency caller’s GPS location is simplified, but Salafia expressly teaches that “location data may . . . be based on . . . GPS information obtained from the cell phone[.]” Ex. 1007 ¶ 61. As in SARLOC, Marr’s URL link supplies the missing implementation details for the acquisition of a geolocation in Salafia’s system. Ex. 1008 ¶¶ 37–40. Thus, Petitioner has set forth a motivation—one would have looked to Marr for details as to how to implement Salafia’s acquisition of location data—that is supported by the evidence currently before us. *See* Pet. 67.

Second, while it is not necessary for Petitioner to establish that the combination of Salafia and Marr would have more desirable advantages than Salafia alone, Petitioner does identify several benefits that would result from making the combination. These include “very accurate location determination”; “increase[d] accuracy and availability of information while

putting fewer demands on [a caller’s] time, memory, and knowledge”; and “useful ‘whenever a customer is not particularly technologically savvy[.]’” Pet. at 67–68 (quoting Ex. 1008 ¶ 38).

Third, Patent Owner argues that one of ordinary skill would not have modified Salafia with the teachings of Marr because, according to Patent Owner, Salafia teaches away from relying on GPS location from a mobile device and is instead directed to “systems and methods . . . to enable the efficient transfer of visual information between a caller and a call handler.” Prelim. Resp. at 21–22. We do not agree that Salafia teaches away from the technique disclosed in Marr. Salafia discloses more than one way for a call handler to obtain location information. Ex. 1007 ¶¶ 10–11 (visual information received from the caller), ¶ 61 (“GPS information obtained from the cell phone, the cellular services provider or some other source”). However, it does not disparage any of the solutions described, and therefore does not teach away from any of them. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (“The prior art’s mere disclosure of more than one alternative does not constitute a teaching away from . . . alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed.”).

Finally, Patent Owner argues that it would not be beneficial to modify Salafia with the teachings of Marr because “[i]ncorporating the methods of Marr would, in fact, require additional steps, making it more difficult for a customer that is ‘not particularly technologically savvy.’” Prelim. Resp. 22. This argument is not supported by the evidence. Salafia requires an emergency caller to take a picture or video, upload it to an email or MMS message, and then send that message manually to an emergency call handler. Ex. 1007 ¶ 74. Marr only requires the caller to click on a single link in a text

message. Ex. 1008 ¶ 37. Marr is simpler for the caller, and it is the *caller's* experience that is the focus of both Salafia and Marr. *See, e.g., id.* ¶ 37 (catering to “a customer [who] is not particularly technologically savvy”); Ex. 1007 ¶ 2 (“Call handling of either emergency or non-emergency related situations is a process of interacting with a caller to exchange information.”).

Overall, we are not persuaded by Patent Owner’s argument that the Petition “fails to articulate a non-conclusory rationale for why a POSITA would be motivated to combine” Salafia and Marr. Prelim. Resp. 1. Patent Owner has raised no other reason why we should reject Ground 2 of the Petition. On the present record, we find that Petitioner has established a reasonable likelihood that it would prevail in showing that the combination of Salafia and Marr renders each challenged claim of the ’016 Patent unpatentable for obviousness.

*F. Ground 3: Obviousness over Brooks (Ex. 1005), SARLOC (Ex. 1006), and Salafia (Ex. 1007)*

Petitioner asserts that claims 1, 5–9, and 13–17, and 25–27 are unpatentable as obvious over the combination of Brooks, SARLOC, and Salafia. Pet. 69–73. Petitioner argues that “[a]s explained in Ground 1, Brooks and SARLOC themselves teach everything independent claims 1 and 9 require.” Pet. 69. Petitioner further argues that Salafia discusses the hardware and software components of an emergency call system in considerable detail. *Id.* at 70; *see* Ex. 1007 ¶¶ 44–79, Fig. 2, Fig. 5; Ex. 1004 ¶¶ 362–369. Petitioner concludes that “[w]hile Brooks’ and SARLOC’s disclosures alone are sufficient for purposes of the claims, if it is determined for some reason that additional structural detail is required, the claims would still be obvious when Salafia’s teachings are applied.” Pet. 70.

*1. Analysis of Petitioner’s Mapping of the Prior Art to the Claims*

We have already determined in connection with Ground 1 that Petitioner’s mapping of Brooks and SARLOC to each element of claims 1, 5–9, and 13–16 is consistent with the evidence of record at this stage of the proceeding, including the asserted prior art and the Declaration of Gerald Christensen (Ex. 1004). *See* Pet. 22–37. We have further determined in connection with Ground 2 that Petitioner’s mapping of Salafia to the additional elements in claims 17 and 25–27 is consistent with the evidence of record. *See* Pet. 62–66. The combination of Brooks and SARLOC with Salafia therefore is also likely to demonstrate that each element of the challenged claims is present in the prior art. Accordingly, we adopt and apply Petitioner’s undisputed claim mapping for purposes of our discussion of Ground 3 of the Petition.

*2. Analysis of the Motivation to Combine*

Petitioner contends that “[a] POSITA would have been motivated to employ Salafia’s structural components when implementing Brooks’ and SARLOC’s emergency call system and would have expected to succeed when doing so” because: “Salafia is in the same technical field as Brooks and SARLOC”; the references share a “similarity in purpose and function”; and “Salafia uses well-known, widely available componentry,” which would lead a POSITA to expect successful results. Pet. 71–72; Ex. 1004 ¶¶ 371–378. “Brooks and SARLOC already detail how their emergency call system is to function. Salafia simply identifies the well-known components that would allow Brooks and SARLOC to perform these functions.” Pet. at 72. Petitioner further argues that there would have been another benefit to adding Salafia to the combination of Brooks and SARLOC: “the combined

system would be able to not only request and receive GPS location and textual information, but could also request that callers send images of the emergency location.” *Id.*

Patent Owner contends that “Brooks is cumulative of Salafia, and Petitioner relies on Brooks and Salafia for the same limitations.” Prelim. Resp. 26. Patent Owner’s only argument is that Ground 3 must fail because “Petitioner has failed to identify a deficiency or a need for improvement in either Salafia or Brooks that would motivate a POSITA to search out further references for alleged improvements, especially the substantially different teachings of SARLOC.” *Id.* This argument is, in essence, a summary of the arguments raised in response to Grounds 1 and 2 of the Petition, which are not persuasive for the reasons already discussed.

We are not persuaded by Patent Owner’s argument that the Petition “fails to articulate a non-conclusory rationale for why a POSITA would be motivated to combine” Salafia with the Brooks/SARLOC combination. *See* Prelim. Resp. 1. Patent Owner has raised no other reason why we should reject Ground 3 of the Petition. On the present record, we find that Petitioner has established a reasonable likelihood that it would prevail in showing that the combination of Brooks, SARLOC, and Salafia renders each challenged claim of the ’016 Patent unpatentable for obviousness.

### III. CONCLUSION

For the reasons discussed above, we determine that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that at least one claim of the ’016 patent is unpatentable. Our analysis is based on the preliminary record developed thus far and may change after the record is developed fully, during trial.

#### IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that *inter partes* review of claims 1, 5–9, and 13–17, and 25–27 of U.S. Reissued Patent No. RE50,016 is instituted with respect to all grounds of unpatentability set forth in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '993 patent shall commence on the entry date of this Decision, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

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Patent RE50,016 E

FOR PETITIONER:

K. Patrick Herman  
Alyssa Caridis  
ORRICK, HERRINGTON & SUTCLIFFE LLP  
P52PTABDocket@orrick.com  
A8CPTABDocket@orrick.com

FOR PATENT OWNER:

Lionel M. Lavenue  
Cory C. Bell  
Safiya Aguilar  
Caitlin Coverstone  
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP  
lionel.lavenue@finnegan.com  
cory.bell@finnegan.com  
safiya.aguilar@finnegan.com  
caitlin.coverstone@finnegan.com