

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

T-MOBILE US, INC., T-MOBILE USA, INC.,
TELECOMMUNICATION SYSTEMS, INC., ERICSSON INC., and
TELEFONAKTIEBOLAGET LM ERICSSON,
Petitioner,

v.

TRACBEAM, LLC,
Patent Owner.

Case IPR2016-00745
Patent 7,764,231 B1

Before KEVIN F. TURNER, JAMES A. TARTAL,
and MATTHEW R. CLEMENTS, *Administrative Patent Judges*.

TURNER, *Administrative Patent Judge*.

DECISION

Denying Institution of *Inter Partes* Review

37 C.F.R. § 42.108

Denying Motion for Joinder

37 C.F.R. § 42.122(b)

I. INTRODUCTION

A. Background

T-Mobile US, Inc., T-Mobile USA, Inc., TeleCommunication Systems, Inc., Ericsson Inc., and Telefonaktiebolaget LM Ericsson (collectively, “Petitioner”) filed a Petition (Paper 1, “Pet.”) to institute an *inter partes* review of claim 17 of U.S. Patent No. 7,764,231 B1 (Ex. 1001, “the ’231 Patent”). Concurrently, Petitioner filed a Motion for Joinder (Paper 3, “Mot. for Joinder”), requesting that we join this proceeding to IPR2015-01687, in which we instituted *inter partes* review of claims 20 and 25 of the ’231 Patent, but declined to institute as to claim 17.

TracBeam, LLC (“Patent Owner”) filed a Preliminary Response (Paper 9, “Prelim. Resp.”). Patent Owner also filed an Opposition to the Motion for Joinder (Paper 8, “Opp. to Mot. for Joinder”). Thereafter, Petitioner filed a Reply (Paper 10) in support of its Motion for Joinder.

Upon consideration of the Petition and Preliminary Response, we exercise our discretion, under 35 U.S.C. § 325(d), to deny institution of *inter partes* review as to claim 17.

B. The ’231 Patent

The ’231 Patent describes location systems for wireless telecommunication infrastructures. Ex. 1001, Abstract. According to the ’231 Patent, the location techniques are useful for 911 emergency calls, vehicle tracking and routing, and location of people and animals. *Id.* at Abstract, 12:17–23.

Figure 4, reproduced below, illustrates an embodiment:

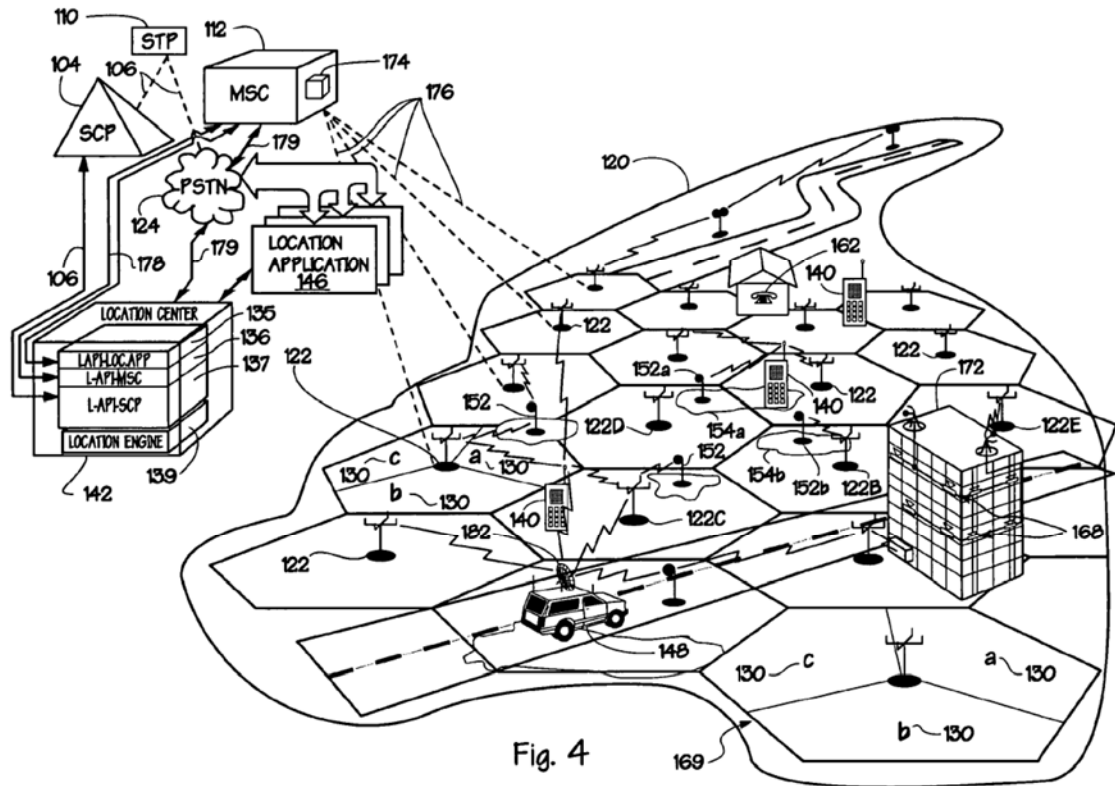


Figure 4, reproduced above, is an overall view of a wireless radio location network architecture. *Id.* at 21:34–35. The network includes a plurality of mobile stations (“MS”) 140, mobile switching center (“MSC”) 112, and a plurality of wireless cell sites forming radio coverage area 120, each site including a fixed-location base station 122 for voice and data communication with MSs 140. *Id.* at 24:6–42. The network also includes location base stations (“LBS”) 152 with wireless location enablement, e.g., with transponders used primarily in communicating MS location related information to location center 142 (via base stations 122 and MSC 112). *Id.* LBSs can be placed, for example, in dense urban areas, in remote areas, along highways, or wherever more location precision is required than can be obtained using conventional wireless infrastructure components. *Id.* at 28:1–10.

Location center 142 determines a location of a target MS 140. *Id.* at 25:26–30, 37:16–18. The system uses a plurality of techniques for locating MSs, including two-way time of arrival (“TOA”), time difference of arrival (“TDOA”), and Global Positioning System (“GPS”). *Id.* at Abstract, 9:13–28, 11:13–62, 66:52–58. To determine a location for a MS, the system computes a first order model (also referred to as a hypothesis or estimate) for one or more of the locating techniques, computes a confidence value for each model indicating the likelihood that the model is correct, performs additional computations on the models to enhance the estimates, and computes from the models a “most likely” location for the MS. *Id.* at 12:52–13:36, 37:66–38:6. The most likely location can be a composite of the estimates. *Id.* at 13:30–36, 66:20–31.

Location estimates can be provided to location requesting applications, such as 911 emergency, police and fire departments, taxi services, etc. *Id.* at 8:56–64, 13:25–28.

Claim 17, the only claim challenged in the Petition, is reproduced below:

17. A method for locating a wireless mobile station, comprising performing the following steps by computational equipment:

(A1) receiving location information for the mobile station by the steps (a) and (b) following:

(a) first obtaining a first instance of the location information when supplied with signal time delay data obtained from wireless signal data received by the mobile station from a satellite, wherein a geographic range corresponding to the signal time delay data is used to determine the first instance;

wherein communication between the mobile station and at least one terrestrial transceiver is used to improve said first instance; and

(b) second obtaining a second instance of the location information of the mobile station when supplied with second data indicative of time delays of wireless signals transmitted between the mobile station and a plurality of terrestrial transceivers cooperatively linked together for use in two way communication with the mobile station, wherein at least one of (i) and (ii) following are used for obtaining the second instance: (i) a representation of a locus of locations having substantially a same time difference of arrival for wireless signals communicated between: the mobile station, and each of at least two of the transceivers, and (ii) an area obtained by a correspondence between surveyed wireless signaling characteristics of the area, and wireless signals communicated between the mobile station and the transceivers;

wherein the second instance does not depend on a geographical location of the mobile station obtained from information indicative of a distance between the mobile station and at least one of the one or more satellites;

(A2) determining resulting location information, for each of one or more locations of said mobile station, using at least one of: a first value obtained from the first instance, and a second value obtained from the second instance;

(A3) outputting said resulting location information for each of the one or more locations;

wherein: the first value is used to obtain the resulting information for one of the locations, and the second value is used to obtain the resulting information for one of the locations.

C. Related Matters; IPR2015-01687

The '231 Patent is the subject of several lawsuits filed in several United States District Courts. Pet. 11; Paper 5, 1–5. The '231 Patent also is

the subject of *T-Mobile US, Inc. v. TracBeam, LLC*, Case IPR2015-01681 (PTAB) and *T-Mobile US, Inc. v. TracBeam, LLC*, Case IPR2015-01687 (PTAB). Pet. 2; Paper 5, 2. Various related patents also are the subjects of other proceedings before the district courts and the Board. Paper 5, 1–5.

Most pertinent to this proceeding is *T-Mobile US, Inc. v. TracBeam, LLC*, Case IPR2015-01687 (PTAB) (“1687”). In the Decision on Institution in 1687, we instituted *inter partes* review as to claims 20 and 25, but denied institution as to claim 17 (the claim challenged in the instant proceeding). 1687, Paper 10 (“1687-Dec.”). Petitioner seeks to join this proceeding to 1687. See Mot. for Joinder.

In 1687, as it does here, Petitioner contended that claim 17 would have been obvious over Loomis¹ and Wortham.² See Paper 1 (“1687-Pet.”), 34–44. As summarized in the Decision on Institution for 1687, Loomis describes a hybrid location determining (“LD”) system that includes an outdoor LD unit that determines location using GPS technology and a radio LD unit that determines location using FM radio technology. 1687-Dec. 9–11. In order to determine a location estimate from the FM signals it receives, Loomis’s radio LD unit must first know the relative phases of the FM signals. *Id.* at 11. For those phases, the radio LD unit relies on determinations from the outdoor (GPS) LD unit. *Id.* at 10–11. Wortham describes a differential positioning system for a mobile communication (cellular telephone) network in which GPS signals are evaluated at a fixed station with known (surveyed) coordinates to generate correction data. *Id.* at 12–13. The correction data are sent via the mobile communication system to

¹ U.S. Patent No. 5,936,572 (issued Aug. 10, 1999) (Ex. 1008).

² U.S. Patent No. 6,748,226 B1 (issued June 8, 2004) (Ex. 1009).

mobile receivers for use in correcting the GPS coordinate determinations made at the mobile receivers. *Id.* Petitioner argued that a skilled artisan would have modified Loomis to replace its FM terrestrial location capabilities with cellular-based signals, as would be transmitted by Wortham’s transmitter sites. *Id.* at 13–14.

In 1687, Petitioner relied on Loomis to show “wherein the second instance does not depend on a geographical location of the mobile station obtained from information indicative of a distance between the mobile station and at least one of the one or more satellites,” as recited in claim 17, arguing that Loomis’s outdoor LD and radio LD units are independent of one another. 1687–Pet. 42. We determined that the respective position information generated by the radio LD unit and outdoor LD unit are not independent, because the radio LD unit’s position information depends on the outdoor LD unit’s determination of phase, which depends on the outdoor LD unit’s computation of GPS coordinate position information. 1687–Dec. 16–18. Accordingly, Petitioner did not show a reasonable likelihood of success in showing that claim 17 would have been obvious over Loomis and Wortham. Petitioner did not request rehearing of that determination.

D. The Asserted Ground

Petitioner contends that claim 17 would have been obvious, under 35 U.S.C. § 103, over Loomis and Wortham. Pet. 14. Although Petitioner cites the same references, Petitioner advances a theory as to how a skilled artisan would have interpreted and applied Loomis and Wortham. Petitioner contends that a skilled artisan would have used a stationary FM signal monitor, as in Loomis’s description of the prior art, rather than Loomis’s

outdoor LD unit, to supply phase information to the radio LD unit. Pet. 29–31.³ *See also id.* at 33–39 (reiterating its view of Loomis and the alleged obviousness of the combination of Loomis and Wortham).

Petitioner contends that its application of Loomis and Wortham merely “provides further clarification on how the *Loomis-Wortham* combination satisfies the claim limitations relied on in the Board’s prior decision not to institute review of this claim” (Pet. 8) and introduces “nominal additional subject matter” (*id.* at 9).

E. One Year Bar Under 35 U.S.C. § 315(b) and Joinder

According to 35 U.S.C. § 315(b):

An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent. The time limitation set forth in the preceding sentence shall not apply to a request for joinder under subsection (c).

Patent Owner contends that the Petition is barred by Patent Owner’s complaint (Ex. 2003) in the ’678 litigation, allegedly served on Petitioner on August 11, 2014, more than one year prior to the March 11, 2016, filing date of the Petition. Prelim. Resp. 2–5.

Petitioner argues that the Petition is not barred by a prior lawsuit filed by Patent Owner against MetroPCS and TeleCommunication Systems, Inc., arguing that “[t]hose lawsuits were dismissed without prejudice, and thus are treated as if they had never been filed.” Pet. 13. Here, Petitioner refers to

³ Loomis criticizes this prior art technique (Ex. 1008, 4:9–17) and describes using the outdoor LD unit to remedy such deficiencies as “an important feature of the invention” (*id.* at 7:31–38).

the '96 litigation. *Id.* (citing Ex. 1019). Nevertheless, Petitioner states that “Patent Owner TracBeam is currently asserting the '231 Patent . . . against Petitioner T-Mobile in” the '678 litigation. *Id.* at 11. Petitioner does not appear to address whether the '678 litigation bars the Petition.

Petitioner also has filed a motion to join the instant Petition to the 1687 proceeding. Mot. for Joinder. Petitioner argues that the Petition is timely by virtue of its Motion for Joinder. Pet. 12–13; *see also* 35 U.S.C. § 315(b) (“The time limitation set forth in the preceding sentence shall not apply to a request for joinder under subsection (c).”).

Joinder, however, is appropriate only when the underlying petition sought to be joined warrants institution. According to 35 U.S.C. § 315(c) (emphasis added):

If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, *determines warrants the institution of an inter partes review under section 314.*

As explained below, we have considered the Petition and the Preliminary Response and determine that the Petition does not warrant the institution of an *inter partes* review. Accordingly, we do not reach whether the Petition is time barred or whether joinder otherwise would be appropriate.

Petitioner’s Motion for Joinder is denied as moot.

II. ANALYSIS

Institution of *inter partes* review is subject to Board discretion. “At any time prior to institution of *inter partes* review, the Board may deny

some or all grounds for unpatentability for some or all of the challenged claims. Denial of a ground is a Board decision not to institute *inter partes* review on that ground.” 37 C.F.R. § 42.108(b). In particular, “[i]n determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). This is an instance in which Petitioner presents the same prior art in a second petition along with arguments to correct errors in a first petition.

Previous panels of this Board have expressed concern with permitting a petitioner to file an inadequate first petition and subsequently allowing the petitioner to correct errors in the first petition through the filing of a second petition. For example, in *ZTE Corp. v. ContentGuard Holdings Inc.*, Case IPR2013-00454 (PTAB Sept. 25, 2013) (Paper 12), slip op. at 5–6, a panel explained:

The Board is concerned about encouraging, unnecessarily, the filing of petitions which are partially inadequate. A decision to institute review on some claims should not act as an entry ticket, and a how-to guide, for the same Petitioner who filed an unsuccessful joinder motion, and is outside of the one-year statutory period, for filing a second petition to challenge those claims which it unsuccessfully challenged in the first petition.

Similarly, another panel denied a petition with grounds that served as “second bites at the apple” and used a prior decision “as a roadmap to remedy [the first petition’s] prior, deficient challenge,” explaining that “[a]llowing similar, serial challenges to the same patent, by the same petitioner, risks harassment of patent owners and frustration of Congress’s intent in enacting the Leahy-Smith America Invents Act.” *Butamax*

Advanced Biofuels LLC, v. Gevo, Inc., Case IPR2014-00581, 2014 WL 5299385, at *6 (PTAB Oct. 14, 2014) (Paper 8). Patent Owner contends that we should follow this guidance and deny the Petition. Prelim. Resp. 8–20. We agree with Patent Owner that this is a factor that weighs against institution of the Petition.

Petitioner (Pet. 5) contends that the Petition is justified by three factors:

- (1) the prejudice to Petitioners caused by Patent Owner’s assertion of an unreasonable number of claims in the co-pending litigation; (2) recent deposition testimony from Dr. Dennis Dupray, a named inventor of the ’231 Patent, that was not available when IPR proceeding IPR2015-01687 was filed; and (3) the public interest in adjudicating the validity of a clearly invalid claim and having consistent outcomes concerning similar sets of claimed subject matter and prior art.

As to its first factor, Petitioner argues that, in an act of gamesmanship, Patent Owner asserted over 140 claims against Petitioner in the co-pending district court litigation and dropped the majority of those claims only after Petitioner had filed its initial IPR petitions. *Id.* at 5–6. Petitioner argues that “[t]his gamesmanship made it unrealistic for the initial IPR petitions to proactively address every conceivable argument from the Patent Owner.” *Id.* at 5. Patent Owner disputes Petitioner’s accusation of gamesmanship and argues that it properly followed a procedure set by the District Court for electing a reasonable number of claims. Prelim. Resp. 20–21. Patent Owner then follows up with its own gamesmanship accusations concerning the timing of Petitioner’s submissions of invalidity contentions in district court. *Id.* at 22–24.

We are not persuaded by Petitioner’s argument. In 1687, Petitioner devoted a significant portion of its petition to addressing independent claim

17 on the same prior art as asserted here. 1687-Pet. 34–44. Even if there was gamesmanship in the district court litigation, Petitioner was unsuccessful as to claim 17 in 1687 not because it failed to anticipate an argument made by Patent Owner, but because although Petitioner provided that the first instance of the location information was not dependent on the second, no adequate argument or evidence was presented to show the converse. 1687-Dec. 17–19.

For its second justification, Petitioner argues that, since filing the petition in 1687, Petitioner deposed Dr. Dennis Dupray, a named inventor on the '231 Patent, who allegedly admitted that the limitation of claim 17 we found not established by Petitioner was, in fact, known in the art. Pet. 6–7. According to Petitioner, “Dr. Dupray’s testimony confirms what was already well known in the art: that multiple, independent location techniques can output location estimates that are independent of each other.” *Id.* at 7. In response, Patent Owner argues that Dr. Dupray was not testifying about Loomis and Wortham, the cited prior art. Prelim. Resp. 24–25.

We are not persuaded by Petitioner’s second justification. Dr. Dupray testified that cell tower triangulation “may or may not be” dependent on GPS “in certain circumstances” and that he believed there existed prior art techniques for cell tower triangulation not dependent on GPS. Ex. 1027, 332:5–334:12. To the extent that this testimony is relevant at all, Petitioner does not explain persuasively how it bears on whether the prior art references asserted by Petitioner (in the instant Petition or in the petition in 1687) would have taught such a feature.

For its third justification, Petitioner argues that “it would be against the public’s interest not to institute *inter partes* review of this clearly invalid

claim.” Pet. 7. Patent Owner responds that it is against public interest to expend the Board’s limited resources on petitions that merely attempt to fix issues that were not presented adequately in an earlier petition. Prelim. Resp. 26–27 (citing *ATopTech, Inc. v. Synopsys, Inc.*, Case IPR2015-00760, slip op. at 8–9 (PTAB July 21, 2015) (Paper 14) (“[W]e are mindful that permitting second chances without constraint undermines judicial efficiency by expending the Board’s limited resources on issues that were not presented adequately the first time around”).

We are not persuaded by Petitioner’s third justification. In 1687, Petitioner failed to establish a reasonable likelihood of prevailing with respect to the same prior art. While we do not reach whether the second Petition demonstrates a reasonable likelihood of prevailing on that art, Petitioner has not shown that claim 17 is so clearly unpatentable as to undermine public interest.

We have considered Petitioner’s proffered justifications as well as Patent Owner’s concerns regarding allowing Petitioner to correct its first Petition through filing a second Petition advancing the same prior art. We exercise our discretion, under Section 325(d), to deny the Petition because “the same or substantially the same prior art . . . previously were presented to the Office.”

III. CONCLUSION

We exercise our discretion to deny the Petition under 35 U.S.C. § 325(d). Because we deny the Petition, we deny Petitioner’s Motion for Joinder as moot.

IV. ORDER

Accordingly, it is:

ORDERED that, pursuant to 35 U.S.C. § 325(d), an *inter partes* review is not instituted for claim 17 of U.S. Patent No. 7,764,231 B1; and

FURTHER ORDERED that Petitioner's Motion for Joinder is denied as moot.

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