UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE, INC.

Petitioner

v.

UNILOC 2017 LLC

Patent Owner

_____

IPR2019-00251 Patent 6,993,049 B2

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PATENT OWNER SUR-REPLY

Table of Contents

EXHIBIT LIST

Exhibit No.	Description
2001	Excerpts from Microsoft Computer Dictionary, Fourth Edition, 1999
2002	Declaration of Jeffrey Huang
2003	Declaration of Brett Mangrum
2004	Claim Construction Memorandum Opinion and Order, *Uniloc USA, Inc. et al v. Samsung Electronics America, Inc. et al*, 2-18-cv-00040, Dkt. 81 (E.D. Tex. Apr. 5, 2019)
2005	Amended Order Granting Motion to Dismiss, *Uniloc USA Inc et al v. LG Electronics USA Inc et al*, 5-18-cv-06738, Dkt. 109 (N.D. Cal. Apr. 9, 2019)

I.   INTRODUCTION

Uniloc 2017 LLC ("Uniloc" or "Patent Owner") submits this Sur-Reply to the

Petition IPR2019-00251 for *Inter Partes* Review ("Pet." or "Petition") of United

States Patent No. 6,993,049 ("the '049 patent" or "Ex. 1001") filed by Apple Inc.

("Petitioner").

For the reasons given in Patent Owner's Response (Paper 11, "POR") and

herein, Petitioner fails to carry its burden of proving the challenged claims of the '049

patent unpatentable on the challenged grounds.

II.   PETITIONER'S REPLY AND ITS ACCOMPANYING BELATED ARGUMENT AND EVIDENCE UNDERSCORES DEFICIENCIES OF THE PETITION

The Board has reinforced, in both the Consolidated Trial Practice Guide issued

in November 2019, and in a precedential opinion issued in December 2019, by a panel

consisting of the Director, the Commissioner of Patents, and the Chief Administrative

Patent Judge, that petitioners have limited opportunities to introduce evidence after

the Petition, *Hulu, LLC v. Sound View Innovations, LLC*, Case IPR2018-01039, Paper

20, p. 15-16 (Dec. 20, 2019) (Precedential), and may not use their Reply (Paper 12,

"Reply") to submit new evidence or arguments that could have been submitted earlier.

As stated in Consolidated Trial Practice Guide, "Petitioner *may not submit new*

evidence or argument in reply *that it could have presented earlier*." (Patent Trial and

Appeal Board Consolidated Trial Practice Guide November 2019, pp. 73-74) (emphasis added).

In *Hulu, LLC v. Sound View Innovations, LLC*, the Board made clear that the opportunities to submit additional evidence are limited, as stated in a heading:

> *2. After filing a petition, a petitioner has limited opportunities*
> *to submit additional evidence*

Hulu v. Sound View Innovations, at 14. The Board further explained that petitioner may not use these limited opportunities to introduce new theories:

> The opportunity to submit additional evidence does not allow a petitioner to completely reopen the record, by, for example, changing theories after filing a petition. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1369–70 (Fed. Cir. 2016) (affirming Board discretion to deny entry of petitioner's reply brief that contained an improper new unpatentability theory and evidence, citing, among other things, § 312(a)(3)); *see also* CTPG at 74 ("'Respond,' in the context of 37 C.F.R. § 42.23(b), does not mean proceed in a new direction with a new approach as compared to the positions taken in a prior filing.").

Hulu v. Sound View Innovations, at 15-16.

Here, the Petitioner flagrantly disregards the Consolidated Trial Practice Guide and *Hulu* by raising new argument and presenting new evidence in the present proceeding.

A. **Petitioner improperly raises a new argument to justify its failure to establish the dates of BT Core and IrOBEX.**

In complete disregard for the Consolidated Trial Practice Guide and recent PTAB Decisions, the Petitioner raises a new argument in the Reply, contending that the Patent Owner has "untimely" argued that BT Core and IrOBEX are inadmissible. Reply, p. 23. Petitioner's contention is not only hypocritical in view of its untimely attempt to raise a new argument and enter new documents at this late stage, it misrepresents Patent Owner's position.

In fact, nowhere in the 28 pages of the POR does Patent Owner argue that BT Core and IrOBEX are <u>inadmissible</u>. Rather, the Patent Owner correctly contends that Petitioner has not established the references are prior art, because the <u>Petitioner has not established the dates on which the references were published</u>. As noted in the POR, "nothing in the Petition itself, its attached declarations, or in the unexplained citations, establishes that BT Core was publicly accessible before the alleged 'Critical Date' of June 26, 2006." POR, p. 2. Likewise, "nothing in the Petition itself, or in the cited paragraphs from the declaration of Dr. Charles Knutson (Ex. 1008), establishes that IrOBEX was publicly accessible before the alleged "Critical Date" of June 26, 2000." POR, pp. 8-9.

Still further, because the Patent Owner is contesting the dates of the alleged prior art and is not seeking, at this time, to exclude the references at issue, the Petitioner is wrong to assert that the time restrictions of 37 C.F.R. 42.64 apply.

B. Petitioner improperly relies on additional evidence that could have been earlier filed to establish the dates of BT Core and IrOBEX.

The Petitioner here has also flagrantly disregarded the principles of the Consolidated Trial Practice Guide and *Hulu, LLC v. Sound View Innovations* in seeking to justify their reliance on BT Core and IrOBEX by submitting an additional over 200 pages of new Declaration and documents (Exs. 1027-1029, Ex. 1034, Ex. 1008, and Ex. 1033) in an effort to belatedly correct the deficient evidence in the Petition that BT Core and IrOBEX allegedly qualify as prior art.

This is not the first time that Petitioner has attempted to improperly inject additional evidence into the proceeding well after the filing of the Petition. Petitioner filed, more than nine months after the filing of the Petition, a Motion to File Supplemental Information (Paper 9) to enter into the record the Declaration of Dr. Michael Foley (Ex. 1020). Patent Owner timely filed a response opposing the filing of the Supplemental Information (Paper 10). Because the Board has not yet ruled on Petitioner's motion, the supplemental information Petitioner seeks to introduce is not of record and hence not addressed in this Sur-Reply. Further, because Petitioner has untimely and improperly submitted 200+ pages of declaration and documents with

Petitioner's Reply, without even the pretense of filing a Motion to File Supplemental Information, Patent Owner will not address the declarations and documents filed in this improper manner.

The deficiency of Petitioner's proof is evident in view of Petitioner's belated attempt to introduce new argument and new evidence at this late date. As the Petitioner seeks to disregard the limits on introduction of new evidence and legal theories after filing of the Petition, the Board should deny consideration of Petitioner's new arguments and evidence relating to the alleged prior art status of BT Core and IrOBEX, and the Board should rule that Petitioner has failed to establish that BT Core and IrOBEX are prior art. As clearly detailed on pages 1-8 of the POR (Paper 11), the Petitioner has failed to establish the date of the BT Core reference. As detailed on pages of 8-10 of the POR (Paper 11), the Petitioner has failed to establish the date of the IrOBEX reference. Indeed, Petitioner can hardly argue that that the patent references listed on page 26 of the Petitioner's Reply were not readily available at the time of filing of the Petition, or that the additional Declarants were unavailable at the time of filing of the Petition.

III.   CLAIM CONSTRUCTION

The Petition is tainted by a reliance on erroneous claim constructions. This gives rise to a number of an independent and fully dispositive bases to deny the Petition in its entirety. *See Mentor Graphics Corp., v. Synopsys, Inc.*, IPR2014-

00287, 2015 WL 3637569, (Paper 31) at *11 (P.T.A.B. June 11, 2015), aff'd sub

nom., *Synopsys, Inc. v. Mentor Graphics Corp.*, 669 Fed. Appx. 569 (Fed. Cir. 2016)

(denying petition as tainted by reliance on unreasonable claim constructions).

A. "additional data field"

"When a patent 'repeatedly and consistently' characterizes a claim term in a

particular way, it is proper to construe the claim term in accordance with that

characterization." *Profoot, Inc. v. Merck & Co.*, 663 F. App'x 928, 932 (Fed. Cir.

2016) (quoting *GPNE Corp. v. Apple Inc.*, 830 F.3d 1365, 1370 (Fed. Cir. 2016))."

POR, p. 13.   The '049 patent repeatedly and consistently characterizes the term

"additional data field" to be "an extra data field appended to the end of an inquiry

message."

Figure 5 depicts the additional data field as element 504:
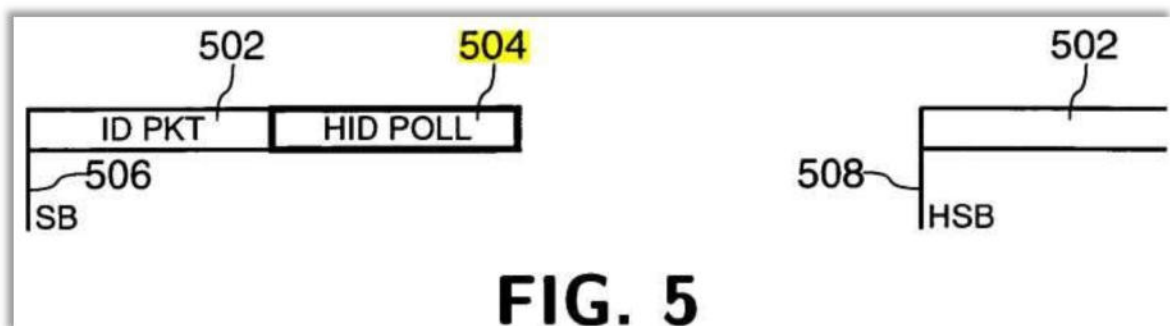
FIG. 5

Ex. 1001, Fig. 5 (highlighting added). The Specification discloses that the additional data field is appended to the end of the inquiry message: "By adding the field to the end of the inquiry message, it will be appreciated that non-HID receivers can ignore it without modification." Ex. 1001, 5:6-9.

Thus, the '049 patent clearly defines, including in the example disclosure emphasized above, that the term "additional data field" refers to "an extra data field appended to the end of an inquiry message". Indeed, the specification explains why appending an extra data field (i.e., in addition to the "predetermined data fields arranged according to a first communications protocol") to the end of the inquiry message is an essential and defining aspect of the claimed invention: appending an extra field to the end of the inquiry message is essential at least because "non-HID receivers can ignore it without modification." *Id.* (emphasis added).

Despite this clear intrinsic evidence, the Petitioner attempts to assert a faulty construction based on extrinsic evidence and the doctrine of claim differentiation. Petitioner's position is without merit.

In *Inpro II Licensing, S.A.R.L. v. T-Mobile USA*, Inc., 450 F.3d 1350 (Fed. Cir. 2006), the Federal Circuit made clear that the primary consideration in construction of the claims is intrinsic evidence in the Specification concerning important features. In *Inpro II*, the patent at issue involved a personal digital assistant (PDA) that included improvements such as a thumbwheel controller with a host interface. *Id.* at

1352. The District Court construed the claim term "host interface" as a "direct parallel bus interface." *Id*. at 1353. The District Court rejected T-Mobile's claim differentiation based argument that the construction was improper because a parallel bus interface and a direct parallel bus were recited in other claims. *Id*.

The Federal Circuit affirmed the District Court's construction of "host interface" and rejected T-Mobile's claim differentiation argument. *Id*. The Federal Circuit recognized that the claims must be construed in view of the disclosure in the specification of the patent at issue that stressed the importance of the direct parallel interface in solving problems with serial interfaces. *Id*. at 1354-55.

Similarly, here, the Specification discusses the importance of the additional data field being appended to the end of the inquiry message. The inventors of the '049 patent observed that, at the time of the invention, that there was an increasing interest in wireless communications links, but that existing wireless networks did not provide sufficient responsiveness for certain Human/machine Interface Devices (HIDs), such as a keyboard. Ex. 1001, 1:9-18. Here, the appending of the additional data field to the end of the inquiry message addresses the responsiveness issues because it permits non-HID receivers to ignore the inquiry message. Ex. 1001, 5:6-9. Further, the Specification notes that "The presence of the extra data field 504 means that the guard space conventionally allowed ***at the end*** of a Bluetooth inquiry packet is reduced. However, this space is provided to give a frequency synthesiser

[sic] time to change to a new hop frequency and will be generally unused otherwise."

Ex. 1001, 5:11-17 (emphasis added).

As in *Inpro II*, a construction that would ignore necessary functionality because of application of the doctrine of claim differentiation is improper. Rather, as in *Inpro II*, the claims must be construed in a manner which follows the intrinsic evidence of the Specification and includes in the construction essential features. Thus, because here the intrinsic evidence of the '049 Patent Specification makes clear that appending of the additional data field to the end of the inquiry message is an important feature, the claims must be construed so that the additional data field is appended to the end of the inquiry message.

Patent Owner further notes that in *Inpro II*, the Federal Circuit held that it was within the District Court's discretion to refuse to consider expert testimony and extrinsic evidence in its claim construction. *Inpro*, 450 F.3d at 1357. Here, the irrelevant extrinsic evidence of a claim construction in an unrelated and unidentified litigation, and the extrinsic evidence of a definition of the term "additional" in a non-technical dictionary completely removed from the context in which the term is used, Reply, pp. 4-5, are irrelevant and do not provide a basis for disregarding the clear teaching of the intrinsic evidence.

Accordingly, the term "additional data field" should be construed to mean "an extra data field appended to the end of an inquiry message."

B.   "broadcasting"

In the POR, the Patent Owner noted that the Board preliminary adopted the construction "one message that is distributed to all stations" for the term "broadcasting" in its Institution Decision. POR, p. 16 (citing Paper 7 at 5). The Patent Owner also noted that elsewhere in its Institution Decision, the Board suggested that it understood, based on the limited record developed at the time, that the "broadcasting" limitations of claim 11 broadly encompass what the Board referred to as "point-to-point" communications. POR, p. 16 (citing Paper 7 at 9).

Patent Owner recognized the inconsistency in the Board's construction, because the interpretation of "broadcasting" to mean a "point-to-point" communication cannot be squared with the intrinsic evidence and the plain and ordinary meaning of broadcasting, as that term was understood by persons of ordinary skill in the art. To address this inconsistency, Patent Owner proposed construing "broadcasting" to mean "a transmission that is receivable by multiple recipients." POR, p. 17. As explained in the POR, this definition is consistent with both the plain and ordinary meaning of "broadcasting," as the term is understood by persons of ordinary skill in the art, and the meaning of the term in view of the intrinsic evidence, particularly with regard to the intrinsic evidence of how the terms "broadcasting" and "paging" are used in the '049 Specification.   POR, p. 17.

In contrast, Petitioner attempts to construe "broadcasting" as a point-to-point communication, which is at complete odds with the plain and ordinary meaning of the term and the intrinsic evidence. First, the Petitioner cites its Declarant in support of the contention that the construction of broadcast as "a transmission that is receivable by multiple recipients" is "inconsistent with the ordinary meaning of broadcasting." Reply p. 6. However, the Declarant's conclusory statement is contradicted by extrinsic evidence such as the Microsoft Computer Dictionary, which is a technical dictionary that defines a broadcast in terms of recipients:

> **broadcast**[1] *adj.* Sent to more than one recipient. In communications and on networks, a broadcast message is one distributed to all stations. *See also* e-mail[1] (definition 1).

Ex. 2001, Microsoft Computer Dictionary, Fourth Edition, at 5; see also Ex. 2002 (declaration of Jeff Huang). By way of further example, as noted in the POR, the Patent Owner's construction is consistent with how that term is generally understood, for example, in the context of radio broadcasting. Clearly, a radio tower does not broadcast a given FM radio station to only one FM receiver at a time. Rather, the broadcasted signal is potentially receivable by multiple FM receivers at once.

The Petitioner raises the contention that the Patent Owner's construction is inconsistent with claim 11 because claim 11 recites "at least one secondary station." Reply, p. 6. However, the construction of broadcast as "a transmission that is

11

receivable by multiple recipients" is entirely consistent with the plain and ordinary meaning of such term and the recitation of claim 11 itself. The limitation of at least one secondary station merely establishes that the network includes both a master and a slave. Even assuming arguendo that a particular network has only a single slave, that does not prevent the transmission from being receivable by multiple recipients. For example, it would be inaccurate to describe a transmitter that broadcasts a radio signal as a "point-to-point" transmitter if only a single radio is tuned to receive the signal. The signal would still be considered a broadcast, because it is receivable by multiple recipients, even if, in one particular instance, only a single radio was tuned to the station broadcasting the signal. The modified construction of "broadcast" as "a transmission that is receivable by multiple recipients" more accurately captures this situation, which is more likely to occur with Bluetooth networks that frequently have new devices joining and leaving the network.

Thus, Petitioner's arguments in the Reply are an unsupportable conclusion by its Declarant that contradicts the proven plain and ordinary meaning of the term broadcast and contends that the construction is inconsistent with other claim elements, when it is not. *See In re Smith Int'l, Inc.*, 871 F.3d 1375, 1382 (Fed. Cir. 2017) ("[T]he protocol of giving claims their broadest reasonable interpretation . . . does not include giving claims a legally incorrect interpretation" "divorced from the

specification and the record evidence.") (citing *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015)).

C.   "inquiry message[s]"

In the Reply, the Petitioner continues its campaign to interpret "inquiry message" in a manner completely untethered from the Specification of the '049 Patent.

As noted above, the inventors of the '049 patent observed that existing wireless networks did not provide sufficient responsiveness for certain Human/machine Interface Devices (HIDs). Ex. 1001, 1:9-18. The '049 patent specification discloses a particular inquiry system to address the responsiveness issues:

> The Bluetooth inquiry procedure allows a would-be slave 101 to find a base station and issue a request to join its piconet. It has been proposed specifically to overcome problems caused by the frequency-hopping nature of Bluetooth and similar systems. The applicants have recognised that it is possible to piggy-back a broadcast channel on the <u>inquiry messages</u> issued by the master 100. The broadcast channel can be used to poll HIDs at regular intervals.
> * * *
>
> To illustrate how this is implemented, we first consider how the Inquiry procedures themselves operate, with reference to FIGS. 3 and 4. When a Bluetooth unit wants to discover other Bluetooth devices, it enters a

so-called inquiry substate. In this mode, it <u>issues an inquiry message</u> containing a General Inquiry Access Code (GIAC) or a number of optional Dedicated Inquiry Access Codes (DIAC).

* * *

<u>In order to achieve the desired responsiveness</u>, and because the HID has been specifically addressed, the HID is allowed to respond, if desired, in the next-but-one half-slot with a packet of similar format, containing information corresponding to the user's input. As described above, <u>the inquiry procedure involves the transmission of two sets of sixteen frequencies in trains of inquiry transmissions</u>.

Ex. 1001, 4:11-5:43.

Despite this clear description of the implementation and role of inquiry messages in the '049 Specification, Petitioner seeks to construe the "inquiry message[s]" term to mean virtually any "message seeking [literally any] information or knowledge." Reply, p. 12. Petitioner's construction is divorced from the '049 Specification, and instead relies on a dictionary definition that conflicts with the meaning of "inquiry message" in the '049 Specification. Reply, pp. 9-10. Such an unreasonably broad interpretation is untethered to the intrinsic evidence and improper. *Smith Int'l*, 871 F.3d at 1382 ("[T]he protocol of giving claims their broadest reasonable interpretation . . . does not include giving claims a legally

incorrect interpretation" "divorced from the specification and the record evidence.")

(citing *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015)).

Petitioner continues to press this overbroad construction in the Reply by relying

on baseless accusations of mischaracterization and purposefully obtuse readings of

the '049 Specification. Reply, p. 9-12. In response to Petitioner's absurd

construction, the POR explains why the Petitioner's construction is overbroad and

divorced from the intrinsic evidence. However, <u>at no point in the Patent Owner</u>

<u>Response does the Patent Owner expressly state a particular construction to be used</u>

<u>by the Board</u>.

In fact, it is the Petitioner who mischaracterizes the record, by claiming that

Patent Owner suggested a specific claim construction for "inquiry message," when

the record clearly shows that it did not. In the Preliminary Response, the Patent

Owner retains the right to provide a claim construction (Paper 6, pp. 11-12), and in

the POR the Patent Owner explains why Petitioner's construction is improper,

without expressly adopting a particular construction. (POR, pp. 17-18). Patent

Owner contends that Petitioner's construction is overbroad and identifies specific

passages in the Specification demonstrating overbreadth of the Petitioner's

construction. For example, the POR states:

> The '049 patent repeatedly and consistently describes its "inquiry
> messages" as a specific type of message used, at least in part, to discover

other devices in the vicinity which may request to join a piconet. . . . This refutes Petitioner's overbroad interpretation that the claimed "inquiry message[s]" encompass virtually any message seeking literally any information or knowledge.

POR, p. 18 (emphasis added). The Petitioner mischaracterizes this explanation as a proposed construction. The Petitioner states that "Uniloc construes an 'inquiry message' as 'a specific type of message used, at least in part, to discover other devices in the vicinity which may request to join a piconet." Reply, p. 9. However, the Petitioner takes this quotation out of context, when in truth this quotation was provided in relation to a refutation of Petitioner's construction. The Reply then presents additional arguments that rely on a claim construction that the Patent Owner did not expressly adopt.

Accordingly, Patent Owner submits that the Petitioner's construction of "inquiry message" is overbroad and completely divorced from the intrinsic evidence of the '049 patent.

As Petitioner notes, the '049 Specification notes that "the general invention concept of polling HIDs via a broadcast channel used as part of the inquiry procedure is not restricted to Bluetooth devices and is applicable to other communications arrangements." Ex. 1001, 3:24-29. However, this statement is entirely consistent

with use in device discovery using protocols other than Bluetooth, and in no way

justifies Petitioner's excessively broad construction.

IV. GROUND 1 ARGUMENTS (PURPORTED OBVIOUSNESS OF CLAIMS 11 AND 12 BASED UPON LARSSON)

A. Larsson's broadcast message for route discovery does not teach an inquiry message under a proper claim construction.

Petitioner fails to prove its assertion that Larsson's "broadcast message for

route discovery" maps onto the claimed "inquiry message" and Larsson's

"piggybacked data" maps onto "an additional data field for polling at least one

secondary station." POR, p. 19. As explained in detail in the POR, the purpose of

Larsson's "broadcast message for route discovery" is to discover an optimal route to

a known destination node which is already joined to a network; thus, it does not

comprise "a specific type of message used to discover other devices in the vicinity of

a network." POR, pp. 19-20.

In the Reply, the Petitioner repeats its argument that Larsson's "broadcast

message for route discovery" teaches the claimed "inquiry message," based upon a

clearly overbroad claim construction under which "inquiry message" essentially

comprises any message that seeks information. As discussed in detail in Section III.C,

supra, this construction is completely divorced from the intrinsic evidence of the '049

patent. In view of the intrinsic evidence of the '049 patent, an inquiry message should

be not be construed so broadly construed as a "a specific type of message used to

discover other devices in the vicinity of a network," which is used to implement the recited method for increasing the responsiveness of HID devices in a network.

Petitioner seeks to rely on a belated further Declaration, in which the Declarant alleges a completely unsupported and strained interpretation of "inquiry message" in which "seeking route information" is similar to seeking a device's address. Reply at pp. 12-13 (citing Ex. 1003, ¶¶39-46). In fact, seeking route information for a path through various existing nodes of the network has no similarity to broadcasting a series of inquiry messages for discovering devices in the vicinity of the network for the purpose of increasing the responsiveness of the network.

The Petition has not and cannot prove obviousness through reliance in an incorrect claim construction. *See Synopsys*, 669 Fed. Appx. at 569.

B. Petitioner fails to prove Larsson renders obvious limitations directed to "adding . . . an additional data field."

Petitioner fails to prove its assertion that Larsson's "piggybacked broadcast message is the additional data field added to the request for route message (inquiry message) prior to transmission." Pet. 23. As noted in Section III.A, *supra*, an additional data field should be construed as "an extra data field appended to the end of an inquiry message." Larsson is completely devoid of any disclosure of such an additional data field.

Petitioner devotes many paragraphs of the Reply to attempting to find support in Larsson for an alleged teaching of an extra data field appended to the end of an inquiry message, which extensive commentary merely points out that Larsson does not provide a definition of "piggybacking" that meets Petitioner's desired interpretation. While portions of Larsson refer to piggybacking data (e.g., Ex. 1005, 6:45-50; 8:8-9; 10:3-13), other portions of Larsson refer to piggybacking a message onto another message (e.g., Ex. 1005, 6:5-6; 6:60-61). Larsson provides no explanation of the data structure of either, and certainly provides no express disclosure that "an extra data field" is appended to the end of the message.

In fact, in networking, piggybacking involves the addition of a message (such as an acknowledgement message) to <u>an already existing data field</u> in an outgoing message:

Why Piggybacking?

Communications are mostly full – duplex in nature, i.e. data transmission occurs in both directions. A method to achieve full – duplex communication is to consider both the communication as a pair of simplex communication. Each link comprises a forward channel for sending data and a reverse channel for sending acknowledgments.

However, in the above arrangement, traffic load doubles for each data unit that is transmitted. Half of all data transmission comprise of transmission of acknowledgments.

So, a solution that provides better utilization of bandwidth is piggybacking. Here, sending of acknowledgment is delayed until the next data frame is available for transmission. The acknowledgment is then hooked onto the outgoing data frame. The data frame consists of an *ack* field. The size of the *ack* field is only a few bits, while an acknowledgment frame comprises of several bytes. Thus, a substantial gain is obtained in reducing bandwidth requirement.

https://www.tutorialspoint.com/what-is-piggybacking-in-networking. As stated above, "The acknowledgement is then hooked onto the outgoing data frame. The data frame consists of an ack field." As further explained, the use of this existing data field, which only comprises a few bits, reduces bandwidth usage because an acknowledgement frame alone comprises several bytes.

While piggybacking in relation to acknowledgement messages is a particular context that may differ from the present context, it clearly demonstrates that "piggybacking" is susceptible to many different interpretations. Accordingly, absent any express teaching in Larsson that piggybacking of a message onto another message comprises the addition of an additional data field to the end of an inquiry message, Petitioner has failed to establish that Larsson teaches such an arrangement based solely on the disclosure of piggybacked messages.

In contrast, the '049 patent clearly discloses the data structure of the additional data field in Fig. 5, and expressly discloses that the additional data field is added to

the end of the inquiry message. Ex. 1001, 5:6-9. Unlike in Larsson, there is no need to guess the structure taught in the '049 patent.

Accordingly, Petitioner has failed to prove its assertion that Larsson teaches an additional data field added to the end of an inquiry message.

V. GROUND 2 ARGUMENTS (PURPORTED OBVIOUSNESS OF CLAIMS 11 AND 12 BASED UPON LARSSON AND BT CORE)

The Board need not reach a final decision on the substantive merits of Petitioner's alternative reliance on BT Core if the Board finds that Petitioner fails to prove BT Core qualifies as prior art. See §II.A, *supra*. In any event, Petitioner's mapping of BT Core onto limitations directed to the claimed "additional data field" are substantively deficient.

A. Petitioner at least fails to prove modifying Larsson to incorporate BT Core's polling packet render obvious claim limitations directed to the "additional data field."

Petitioner's attempted mapping of BT Core onto limitations directed to the claimed "additional data field" are substantively deficient. Petitioner offers no obviousness theory that would satisfy the limitations directed to "additional data field" should this term be construed to mean "an extra data field appended to the end of an inquiry message." See Section III.A, *supra*.

Petitioner recognizes that the POR identifies five different reasons that the combination of Larsson and BT Core is deficient in rendering obvious claims 11 and 12 of the '049 patent. Reply, p. 18.

With regard to the first ground, that the Petitioner has failed to prove the date of the BT Core reference, the Petitioner relies on additional evidence and additional arguments. As noted in Section II, *supra*, the Consolidated Trial Practice Guide provides that "Petitioner *may not submit new evidence or argument* in reply *that it could have presented earlier*." (Patent Trial and Appeal Board Consolidated Trial Practice Guide November 2019, pp. 73-74) (emphasis added).

With regard to the second ground, as discussed in Section IV.B, *supra*, Larsson has no teaching of adding a data field to the end of the inquiry message.

With regard to the third and fourth grounds, the Petitioner admits that BT Core teaches a poll packet without a payload, but argues that other fields of the poll packet would have been added as additional fields. Even assuming arguendo that there is some motivation for this non-specific mish mash of data fields other than the present claims, the combination does not teach adding a data field to the end of the inquiry message.

Finally, with regard to the fifth ground, Petitioner provides many different arguments as to why Patent Owner's arguments are purportedly incorrect. However, Petitioner gives up the game when it contends that "Uniloc's argument indicates a

failure to understand that one of the advantages of Bluetooth's POLL packet is that it can poll a general class of devices or particular devices <u>without using a payload in the POLL packet</u> through the use of access codes." Reply, p. 20 (emphasis added). The very feature that Patent Owner is accused of not understanding is a feature that renders Petitioner's combination of Larsson and BT Core incapable of teaching the recited additional data field. As described in the '049 patent, the additional data field is configured to "carry the address of the HID being polled, and may also carry a small amount of information to the HID which might be used to provide supplementary information to a user (such as text on an LCD screen) or feedback (for example, motional feedback in games controllers)." Ex. 1001, 5:2-6. The Petition fails to explain how modifying Larsson to incorporate the BT Core's POLL packet, which is specifically defined to not carry a payload, can somehow be used to carry the alleged payload in Larsson that Petitioner refers to as "piggybacked data." Pet. 25. Indeed, as noted in the POR, the Petition glosses over this definitive and distinguishing disclosure in BT Core in asserting (without explanation) that the BT Core POLL packet (purposefully configured for no data payload) is allegedly "the type of additional data field contemplated for Larsson's piggybacked data." POR, p. 25 (citing Pet. 40 (emphasis added) (citing Ex. 1003 at ¶ 81, which merely repeats the same conclusory statement without adding any explanation)).

VI.   GROUND 3 ARGUMENTS (PURPORTED OBVIOUSNESS OF CLAIMS 11 AND 12 BASED UPON IROBEX)

A.   Obviousness based upon IrOBEX is based upon an absurd construction under which point-to-point communications are considered "broadcasting."

As noted in the POR, the Petitioner has failed to prove IrOBEX qualifies as prior art. POR, pp, 8-10. Simply alleging that a document was available on a website, Reply p. 25, does not establish that the document was a printed publication. *Samsung Elecs. Co. v. Infobridge Pte. Ltd.*, 929 F.3d 1363, 1369 (Fed. Cir. 2019). Having failed to establish IrOBEX are prior art, Petitioner improperly seeks to, at this late stage, add additional argument and hundreds of pages of documents to correct the deficiencies of its evidence. The Board need not reach a final decision on the substantive merits of the challenges exclusively relying on IrOBEX because Petitioner has failed to provide IrOBEX is prior art. See Section II, *supra*.

In any event, in the Reply, the Petitioner simply repeats its unsupportable argument that Petitioner's construction of broadcasting is erroneous (Reply, p. 20), and fails to address the ample evidence provided by the Patent Owner in the Patent Owner Response (POR, pp. 25-27) that IrOBEX teaches point-to-point communications. No person of ordinary skill in the art would understand a "point-to-point communication" to comprise a "broadcast" communication.

The Petitioner goes further in misrepresenting the construction of broadcasting, improbably arguing not only that a point-to-point transmission comprises a broadcast, but further arguing that IrOBEX teaches a system that broadcasts according to the Patent Owner's construction of "a transmission that is receivable by multiple recipients" because IrOBEX teaches a "broadcast" that is transmitted at different times, which is therefore received by multiple recipients, at different times. Reply, at p. 22. This type of point-to-point transmission has no relation whatsoever to any known definition of broadcasting, and provides additional evidence that Petitioner is construing the patent terms in a manner well outside of the plain and ordinary meaning of the terms. Certainly, a person familiar with the broadcast of television programs or radio programs would never consider a series of point-to-point transmissions at different times to comprise a "broadcast."

Petitioner has the burden to prove obviousness with respect to each and every limitation recited in the challenged claims. Petitioner has failed to carry that burden with respect to proving obviousness based upon IrOBEX.

VII.   RELATED PROCEEDINGS

For completeness of the record, Patent Owner identifies the following proceedings and district court determinations involving the '049 patent:

Case Filing Date	Case Name	Case Number	Court
2/23/2018	*Uniloc USA, Inc. et al v. Samsung Electronics America, Inc. et al*	2-18-cv-00040	EDTX
2/28/2018	*Uniloc USA, Inc. et al v. Logitech Inc. et al*	5-18-cv-01304	NDCA
11/6/2018	*Uniloc USA Inc et al v. LG Electronics USA Inc et al*	5-18-cv-06738	NDCA
11/12/2018	*Apple Inc. et al v. Uniloc 2017 LLC*	IPR2019-00251	PTAB
4/3/2019	*Uniloc USA, Inc. et al v. Apple, Inc.*	5-19-cv-01695	NDCA
5/6/2019	*Microsoft Corporation v. Uniloc 2017 LLC*	IPR2019-01026	PTAB
8/22/2019	*LG Electronics Inc. et al v. Uniloc 2017 LLC*	IPR2019-01530	PTAB
5/1/2019	*Uniloc USA, Inc. v. LG Electronics USA, Inc.*	19-1835	CAFC

Claim Construction Memorandum Opinion and Order, *Uniloc USA, Inc. et al v. Samsung Electronics America, Inc. et al*, 2-18-cv-00040, Dkt. 81 (E.D. Tex. Apr. 5, 2019) (construing claims and determining claims 1 and 8 are indefinite) (submitted as Ex. 2004).

Amended Order Granting Motion to Dismiss, *Uniloc USA Inc et al v. LG Electronics USA Inc et al*, 5-18-cv-06738, Dkt. 109 (N.D. Cal. Apr. 9, 2019) (determining '049 patent is invalid under 35 U.S.C. § 101) (submitted as Ex. 2005).

VIII. CONCLUSION

For at least the reasons set forth above, Uniloc respectfully requests that the Board deny all challenges in the instant Petition.[1]

Date: February 20, 2020   Respectfully submitted,

                                       By: /Ryan Loveless/
                                       Ryan Loveless
                                       Reg. No. 51,970
                                       Brett A. Mangrum
                                       Reg. No. 64,783
                                       Attorneys for Patent Owner

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[1] Patent Owner does not concede, and specifically denies, that there is any legitimacy to any arguments in the instant Petition that are not specifically addressed herein.

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing complies with the type-volume limitation of 37 C.F.R. § 42.24(c)(1) because it contains fewer than the limit of 5,600 words, as determined by the word- processing program used to prepare the brief, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(c).

Date: February 20, 2020

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e), the undersigned certifies that an electronic

copy of the foregoing Sur Reply was served via email to Petitioner's counsel at the

following addresses identified in the Petition's consent to electronic service:

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