2020-1441

In The

United States Court Of Appeals
For The Federal Circuit

MOBILITY WORKX, LLC,

Appellant,

v.

UNIFIED PATENTS, LLC,

Appellee,

ANDREI IANCU, Director,
U.S. Patent and Trademark Office,

Intervenor.

ON APPEAL FROM UNITED STATES PATENT AND TRADEMARK OFFICE
ORIGINATING CASE NO.: IPR2018-01150

BRIEF OF APPELLEE

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CLAIM AT ISSUE, CLAIM 1:

1. A system for communicating between a mobile node and a communication network; the network having at least one communications network node that is interconnected using a proxy mobile internet protocol (IP), comprising:

at least one mobile node;

at least one home agent;

at least one foreign agent;

a ghost-foreign agent that advertises messages to one of the mobile nodes indicating presence of the ghost-foreign agent on behalf of one of the foreign agents when the mobile node is located in a geographical area where the foreign agent is not physically present; and

a ghost-mobile node that creates replica IP messages on behalf of a mobile node, the ghost-mobile node handling signaling required to allocate resources and initiate mobility on behalf of the mobile node, the ghost-mobile node triggering signals based on a predicted physical location of such mobile node or distance with relation to the at least one foreign agent.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

CERTIFICATE OF INTEREST

Case Number 2020-1441

Short Case Caption Mobility Workx, LLC v. Unified Patents, LLC

Filing Party/Entity Unified Patents, LLC

Instructions: Complete each section of the form. In answering items 2 and 3, be specific as to which represented entities the answers apply; lack of specificity may result in non-compliance. **Please enter only one item per box; attach additional pages as needed and check the relevant box**. Counsel must immediately file an amended Certificate of Interest if information changes. Fed. Cir. R. 47.4(b).

I certify the following information and any attached sheets are accurate and complete to the best of my knowledge.

Date: 11/09/2020

Signature: s/ Eric Buresh

Name: Eric Buresh

1. Represented Entities. Fed. Cir. R. 47.4(a)(1).	**2. Real Party in Interest.** Fed. Cir. R. 47.4(a)(2).	**3. Parent Corporations and Stockholders.** Fed. Cir. R. 47.4(a)(3).
Provide the full names of all entities represented by undersigned counsel in this case.	Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities.	Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities.
☐ None/Not Applicable	☑ None/Not Applicable	☐ None/Not Applicable
Unified Patents, LLC		Unified Patents Acquisition, LLC
		Unified Patents Holdings, LLC
		Unified Patents Management, LLC
		UP HOLDCO Inc.

☐ Additional pages attached

4. Legal Representatives. List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

☐ None/Not Applicable ☐ Additional pages attached

Hunter A. Horton, Erise IP, P.A.		

5. Related Cases. Provide the case titles and numbers of any case known to be pending in this court or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. Do not include the originating case number(s) for this case. Fed. Cir. R. 47.4(a)(5). See also Fed. Cir. R. 47.5(b).

☐ None/Not Applicable ☐ Additional pages attached

Mobility Workx, LLC v. Verizon Communications, Inc., et al., 4:17-CV-00872 (E.D. Tex.)		

6. Organizational Victims and Bankruptcy Cases. Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

☑ None/Not Applicable ☐ Additional pages attached

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STATEMENT OF RELATED CASES

No other appeal in or from the proceeding below was previously before this or any other appellate court. This is an appeal from a final written decision of the Patent Trial and Appeal Board ("Board") in *inter partes* review number IPR2018-01150 concerning certain claims of U.S. Patent No. 8,213,417 (the "'417 Patent"). This *inter partes* review relates to a patent that is at issue in a pending district court litigation, *Mobility Workx, LLC v. Cellco Partnership d/b/a/ Verizon Wireless*, Case No. 4:17-cv-00872 (E.D. Tex. Dec. 18, 2017).

Mobility argues that the Board's termination of Mobility's patent rights in the final written decision below was unconstitutional under the Appointments Clause, Art. I, § 2, cl. 2. Opening Brief at 56-58. There are at least two other appeals from final written decisions of the Board that involve similar Appointments Clause challenges: *Trading Technologies Int'l, Inc. v. IBG LLC, Interactive Brokers LLC*, Case No. 2018-1489 (Fed. Cir.) and *Affinity Labs of Texas, LLC v. Netflix, Inc.*, Case No. 2018-1920 (Fed. Cir.).

INTRO

There are no properly preserved issues for this Court to review on appeal. Appellant Mobility Workx, LLC ("Mobility") in its Corrected Opening Brief ("Opening Brief") fails to raise any arguments it brought below before the Board. In its brief, Mobility combines an assortment of newly raised constitutional attacks on the Board's power to render an unpatentability finding with a single new argument on the merits concerning a limitation never raised below. Under the law of this Circuit, Mobility has waived these arguments.

Regarding the constitutional arguments discussed herein, Mobility contends (1) that conducting an IPR proceeding on a pre-AIA patent is an unlawful taking, and (2) that the Board's final written decision ("FWD") violates the Appointments Clause such that *Arthrex* mandates a remand. Should the Court take these up on appeal, this Court has previously considered and rejected these same contentions.

Regarding Mobility's only argument on the merits, should the Court consider this untimely argument, Mobility fails to point to any record evidence that calls into question the Board's unpatentability findings. Substantial evidence supports the Board's factual findings and thus the Board's unpatentability decision regarding claims 1, 2, 4, and 5 should be affirmed.

COUNTER-STATEMENT OF THE ISSUES

1. Whether Mobility has waived its arguments on the merits of the Board's unpatentability finding on claims 1, 2, 4, and 5 by raising a new argument on appeal never raised before the Board?

2. Whether substantial evidence supports the Board's factual findings that Liu or Liu in view of Gwon renders obvious "triggering signals based on a predicted physical location of such mobile node or distance with relation to the at least one foreign agent[,]" from the perspective of a person of ordinary skill in the art?

3. Whether Mobility has a property right in the procedures used at the USPTO to reconsider whether a patent was properly granted, and whether *Arthrex* holds that the administrative patent judges who instituted the IPR proceeding here must be Constitutionally appointed?

STATEMENT OF THE CASE

I. The '417 Patent

A. Alleged Invention

The '417 Patent is generally directed to the allocation of communication resources in a communications network using a mobile communication system. Appx63, 1:17–19, 1:28-30. Mobile communication systems include mobile nodes, such as cell phones, PDA's, or laptop computers, that communicate with each other through an arrangement of base stations that serve distinct zones. Appx63, 1:28-30;

Appx64-65, 4:60-5:8. As the mobile node travels from one zone to another, it establishes a new connection with a new base station. Appx63, 1:31–35. In addition, the mobile node needs a way to let other nodes know where it can be reached as it travels. *Id*. at 1:36–39. To do so, the mobile node first registers with a home agent, which provides a fixed home address for other nodes to contact as it travels. *Id*. at 1:39–44; Appx65, 5:9–17. When the mobile node links to a network other than its home network (i.e., a foreign network), the mobile node receives a care-of address assigned by the foreign network and links this new address with its home agent so messages can be redirected to the new temporary address. Appx63, 1:52–56; Appx65, 5:47–54.

The ’417 Patent explains that delays can occur when linking to a new network because this link to the new network cannot be established until the mobile node is physically present in the foreign network, and resources still need to be exchanged to effectuate the new link. Appx63, 2:20-35; Appx65, 6:4-11. To solve this problem, the ’417 Patent provides a “preemptive and predictive solution” for pre-allocating network resources supporting mobile nodes travelling from network to network. Appx63, 2:42-44. The ’417 Patent discloses two different “ghost-entities,” or proxies, that facilitate this preemptive resource allocation for the traveling mobile node—a “ghost-mobile node” and a “ghost-foreign agent.” Appx63, 2:45-48; Appx64, 3:60-61. These proxies act on behalf of the mobile node and a foreign agent

to proactively exchange data and establish the identity of the mobile node before reaching its next location. Appx63, 2:52-54.

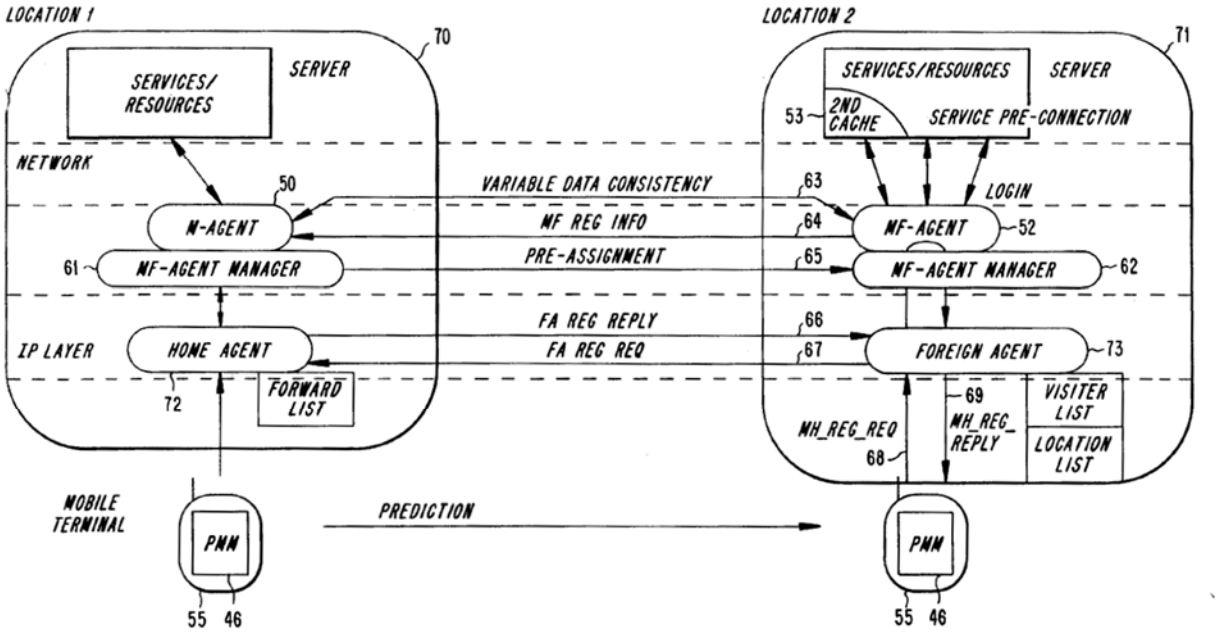
The ghost mobile node, which may be a "set of software instructions running on a device," serves as a "virtual repeater capable of registering and allocating communication resources" on behalf of the mobile node to achieve preemptive setup of a potential communication link before the mobile node arrives in the location of the foreign agent. Appx65, 6:20-26; Appx64, 3:61-65. The ghost mobile node signals the foreign agent before the mobile node arrives in the foreign agent's physical region of coverage, based upon the predicted future state of the mobile node. Appx65, 6:27–38. This predicted future state of the mobile node can be based upon, for example, an estimated location, trajectory, or speed of the mobile node. Appx65, 6:38–46. The signal can be a registration request to allocate communications resources in the same way as performed if the mobile node were physically present in the foreign agent's region of coverage. Appx67, 9:7–17.

The ghost foreign agent is responsible for "mak[ing] a mobile node aware of a corresponding foreign agent's presence in a communication network before the mobile node actually arrives in the physical region covered by the foreign agent." Appx64, 4:3-7. In combination, these ghost (or proxy) entities proactively allocate network resources to achieve faster and more efficient network connections as the mobile node travels from one network to the next. Appx63, 2:42-51.

II. Liu

Liu discloses methods and apparatus for "supporting data and service mobility to users of mobile networks" by pre-connecting and pre-arranging services and data at a mobile user's destination. Appx480, 1:14-16, 2:33-35. To achieve this, Liu describes a mobile floating ("MF") agent protocol, which uses proxies combined with a mobility prediction mechanism to provide a "soft data structure handoff" by pre-connecting user data at the location to which the user is moving. Appx480, 1:59-60, 2:3-10, 2:33-35. Liu's MF agent protocol is shown below in Figure 6:

FIG. 6



Appx460, Fig. 6.

This MF agent protocol employs two proxy entities, described as a mobility agent (M-agent), and a mobile-Floating agent (MF-agent). Appx480, 2:12-34. M-

agent 50 represents the user and "is preferably a software entity executing on a home fixed host or router, including a set of processes that communicates with and pre-assigns an MF-agent 52 to remote fixed hosts or routers on behalf of a mobile terminal 55." Appx482, 6:57-61. MF-agent 52 "is preferably a software entity executing on a remote fixed host or mobile support router (MSR), including a set of processes that can communicate and connect with the local host or MSR resources." Appx482, 6:61–65. Liu describes that "[b]y combining the Mobile-Floating agent functions with a method of predictive mobility management, the services and user data can be pre-connected and pre-assigned at the locations or cells to which the user is moving," which "allows the users to immediately receive service and maintain their data structures with virtually the same efficiency as they could have at the previous location." Appx480, 2:4–10.

Liu's MF agent protocol commences when the mobile device sends a request to its M-agent to pre-assign an MF-agent at the location it is traveling to, to ensure the necessary services and data are ready for the mobile terminal when it arrives at its new location. Appx483, 7:26-38. This new location may have been explicitly provided by the user or may have been predicted through mobility prediction mechanisms. *Id*. at 7:29–31. M-agent 50 registers the request and forwards it to remote MF-agent manager 62 at the new location. Appx483, 7:37–38. As the initial request from the mobile device to the M-agent would be addressed to the M-agent,

the M-agent must encapsulate this message to change the destination address to the MF-agent manager in the foreign network. Appx576-577, ¶ 83. Otherwise, the request would never reach the foreign network. *Id*.

Upon receiving the request, MF-agent manager 62 assigns or creates an MF-agent 52 for the requesting M-agent. Appx483, 7:38–50. MF-agent 52 registers itself with Foreign Agent 73 (F-agent) and signals an MF-assignment reply to M-agent 50 containing the registration information. Appx483, 7:50–56. M-agent 50 then sends a reply to mobile terminal 55 and maintains a data consistency link 63 with MF-agent 52. Appx483, 7:55–57. When mobile terminal 55 reaches the new location, it registers with MF-agent 52 by sending an MF-agent registration request 68 to F-agent 73 to begin the registration process. Appx483, 8:7–12. F-agent 73 will then link mobile terminal 55 to MF-agent 52. Appx483, 8:15–16.

The following table summarizes Liu's disclosure of the claimed features in the '417 Patent:

'417 Patent Disclosure	**Liu Disclosure**
Ghost-Mobile Node	M-agent
Ghost Foreign Agent	MF-agent
Home Agent	Home Agent or Home Fixed Host/Router
Foreign Agent	F-agent or Foreign Agent
Mobile Node	Mobile Terminal or User

Appx551, ¶43.

II. Gwon

Gwon provides methods for predicting the mobility of mobile nodes in wireless networks to enable fast route pre-establishment and reduced packet latency. Appx499, ¶ 30. Route pre-establishment is accomplished by determining when and where a mobile node will be required to hand-off its network access from one access point to another. *Id*. As a mobile node travels, Gwon describes the use of the Neighbor Discovery methodology, where the mobile node may receive Neighbor Advertisement messages from its local router and/or unsolicited Router Advertisement messages from its local router. Appx501-502, ¶¶ 51, 53. These advertisement messages "indicate[ ] the presence of other local routers which could provide network connections for the mobile node." Appx501, ¶ 51.

Gwon further provides additional mobility detection mechanisms that include predicting the future location of a mobile node to select the most optimal network connection point. Appx502, ¶ 55. Such mechanisms include deterministic, stochastic, and adaptive methods of prediction. Appx503, ¶ 59. Further, triangulation of beacon strength signals or geographic mapping information though GPS may be used for mobility prediction. Appx502-503, ¶ ¶ 58, 59.

III. The IPR Proceedings and This Appeal

Unified challenged claims 1-7 of the '417 Patent in its Petition for IPR. Appx77. The Board, in its FWD, determined that claims 1, 2, 4, 5, and 7 were

unpatentable. Appx2; Appx48. Specifically, the Board found that claims 1 and 5 were unpatentable over Liu or Liu in view of Gwon, claim 2 unpatentable over Liu, Gwon, and Lau, claim 4 unpatentable over Liu, Gwon, and IETF RFC 2402, and claim 7 unpatentable over Liu and Lau. Appx49. Claims 3 and 6 were the only challenged claims deemed patentable. *Id*.

Mobility does not appeal the Board's determination that independent claim 7 is unpatentable over Liu in view of Lau. Appx48; Opening Brief at 5. With regard to the appealed claims 1, 2, 4, and 5, Mobility raises none of the arguments it brought below. Opening Brief at 59-66. Nor does Mobility challenge the teachings in Lau or IETF RFC 2402. *Id*. Rather, Mobility's appeal on the merits of the Board's unpatentability finding centers on a new argument never raised before the Board concerning a single limitation of independent claim 1. *Id*.

Mobility additionally proffers an assortment of constitutional attacks on the Board's unpatentability finding. Unified addresses two of these arguments below concerning whether Mobility has a property right in the procedures used at the USPTO to reconsider whether a patent was properly granted, and whether *Arthrex* holds that the administrative patent judges who instituted the IPR proceeding here must be Constitutionally appointed.

SUMMARY OF THE ARGUMENT

The Board's unpatentability decision regarding claims 1, 2, 4, and 5 should be affirmed. Mobility does not appeal the Board's unpatentability finding on independent claim 7. Nor does Mobility point to any record evidence detracting from the Board's unpatentability findings regarding claims 1, 2, 4, and 5. Instead, for the first time on appeal, Mobility suggests that the Board wrongly determined that Liu, or Liu in view of Gwon, renders obvious the "triggering" limitation of claim 1, offering a newly raised construction for the "triggering" limitation. But Mobility never raised this argument to the Board and thus waived its opportunity to do so.

Should this Court hear Mobility's belated argument, substantial evidence supports the Board's factual findings that Liu or Liu in view of Gwon renders obvious all limitations of claim 1, including the appealed "triggering" limitation. The Board correctly found that Liu's cited M-agent functions in the mobile floating agent protocol, in conjunction with mobility prediction functions, discloses the claimed "triggering limitation." And Mobility's new-found construction for "triggering" should be rejected. The Board's decision demonstrates a thorough consideration of the record and provides supporting analysis that is more than sufficient to explain why it adopted Unified's prevailing arguments concerning claim 1. The Board's decision, therefore, should be affirmed.

Mobility's newly raised constitutional arguments must also be denied. First, Mobility waived its contention that conducting an IPR proceeding on a pre-AIA patent is an unlawful taking by failing to timely raise this issue before the Board. Moreover, this Court's precedent confirms that initiating an IPR proceeding over a pre-AIA patent does not constitute a Fifth Amendment taking. Third, this Court's precedent is also clear that Mobility's Appointments Clause challenge fails under the facts presented here. This Court on numerous occasions has found that *Arthrex* does not mandate a remand where the Board's FWD issued after *Arthrex*.

ARGUMENT

STANDARD OF REVIEW

This Court's "review of a Board decision [on obviousness] is limited." *E.I. DuPont de Nemours & Co. v. Synvina C.V.*, 904 F.3d 996, 1005 (Fed. Cir. 2018). The Board's conclusion that the asserted claims were obvious is a legal determination subject to de novo review; subsidiary factual findings are reviewed for substantial evidence. *Novartis AG v. Torrent Pharma. Ltd.*, 853 F.3d 1316, 1327 (Fed. Cir. 2017). Those subsidiary factual findings include the differences between the claimed invention and the prior art, as well as what a prior art reference teaches. *In re Baxter Intern., Inc.*, 678 F.3d 1357, 1362 (Fed. Cir. 2012). Substantial evidence means "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Novartis AG*, 853 F.3d at 1324.

'[T]he possibility of drawing two inconsistent conclusions from the evidence' will not render the Board's findings unsupported by substantial evidence." *Apator Miitors ApS v. Kamstrup A/S*, 887 F.3d 1293, 1295-96 (Fed. Cir. 2018) (quoting *Consolo v. Fed. Mar. Comm'n*, 383 U.S. 607, 620 (1966)). On appeal, this Court "do[es] not duplicate the efforts of ... the Board," and instead "provide[s] proper deference to the fact-finder below rather than reweigh factual determinations." *Microsoft Corporation v. Biscotti, Inc.*, 878 F.3d 1052, 1072-73 (Fed. Cir. 2017) (citing *Anderson v. City of Bessemer City*, 470 U.S. 564, 573–74 (1985) ("If the district court's account of the evidence is plausible in light of the record viewed in its entirety, the court of appeals may not reverse it even though convinced that had it been sitting as the trier of fact, it would have weighed the evidence differently.")).

I. This Court Should Deny Mobility's Improper Attempt to Introduce New Arguments Raised for the First Time on Appeal

Mobility submits that the PTAB's Final Written Decision "simply got it wrong" when invalidating claims 1, 2, 4, and 5, Opening Brief at 3, but fails to point to any arguments or evidence on the record that detract from the Board's decision. Rather, Mobility mints a new argument on appeal, one never considered by the Board. *Id*. at 59-66 (proffering new arguments to a limitation never addressed by Mobility during the IPR proceeding below, referred to herein as the "triggering" limitation). Under well-established precedent, Mobility has waived this argument.

This Court has long held that arguments not raised before the tribunal in which they arose are deemed waived—particularly those squarely within that tribunal's purview. *See, e.g.*, *In re Alonso*, 545 F.3d 1015, 1022 (Fed. Cir. 2008) ("Failure to advance legal theories before the [B]oard constitutes a failure to make a complete presentation of the issues, and permitting a party to raise those theories for the first time would be both inefficient and wasteful of administrative and judicial resources.") (internal citations omitted); *Howmedica Osteonics Corp., v. Zimmer, Inc.*, 640 Fed. App'x 951, 960 (Fed. Cir. 2016) (noting this Court's review "is limited to the four corners" of the record below and finding arguments outside these four corners waived). Mobility has adduced no special circumstances warranting deviation from this long-established precedent.

Mobility concedes in its Opening Brief that it did not dispute the triggering limitation before the Board. Opening Brief at 59 ("**Although Mobility did not present arguments relative to this limitation below**, the burden of proving unpatentability by a preponderance of the evidence remains with UPL.") (emphasis added). Simply restating Unified's burden to prove unpatentability cannot excuse Mobility's failure to raise its arguments to the Board. *MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1294, n.3 (Fed. Cir. 2015) (finding that Patent Owner candidly admitted that it only raised its arguments in a few scattered sentences at the oral hearing below and thus waived the argument). More

concerningly here, Mobility made no suggestion below that Unified's invalidity theories failed to disclose the triggering limitation and thus waived this new line of attack.

Mobility additionally raises no arguments concerning independent claim 7. With no properly preserved arguments regarding claims 1, 2, 4, and 5, and no arguments at all regarding claim 7, Mobility has failed to properly raise any substantive arguments about any claims on appeal; thus, this Court should not consider their new arguments.

II. The Record Evidence Unquestionably Supports the Board's Ruling

Should this Court entertain Mobility's belated arguments, substantial evidence supports the Board's findings that claims 1, 2, 4, and 5 are unpatentable. Mobility's new-found contentions relate to the final limitation of claim 1, reproduced below with the contested portion in bold:

> a ghost-mobile node that creates replica IP messages on behalf of a mobile node, the ghost-mobile node handling signaling required to allocate resources and initiate mobility on behalf of the mobile node, **the ghost-mobile node triggering signals based on a predicted physical location of such mobile node or distance with relation to the at least one foreign agent**.

Appx68, 12:61-67 (in bold, the "triggering" limitation). To suggest the Board "got it wrong," Mobility now urges a backdoor claim construction argument for "triggering," a construction never offered to the Board, as explained above. Opening

Brief at 59-66. The crux of Mobility's argument centers on what is required to "trigger" signaling for resource pre-allocation. *Id*. at 60 (citing embodiments in the '417 Patent where the ghost-mobile node initiates signaling to a foreign agent after personally performing location prediction functions). In other words, Mobility contends that to "trigger" the claimed signaling, Liu's M-agent, which the Board found to disclose the ghost-mobile node, must directly perform a location prediction function and then generate a pre-assignment request, rather than initiate these functions first in the mobile node and then send to the M-agent to forward to the foreign agent in the foreign network. *Id*. at 61-62 (further construing "triggering" to exclude "forwarding"). The claims are not so limited.

As evidenced by the plain language of claim 1, Liu's M-agent need only trigger signals "*based on* a predicted physical location of such mobile node[.]" Appx68, 12:65-66 (emphasis added). There is no claim requirement that the location prediction occur in the ghost-mobile node itself before initiating the signaling process. *Id*. at 12:49-67. Rather, as Unified explained in the Petition and as the Board found in its FWD, the ghost-mobile node merely needs to signal "a preemptive setup, one that is effected before the mobile node [] arrives in the predefined area of coverage of the next foreign agent." Appx106; Appx30-31 ("we agree with Petitioner that Liu's M-agent handles pre-assignment signaling on behalf of the mobile device to prearrange services (allocate resources) and initiate mobility on

behalf of the mobile device, and further does so based on a predicted physical location of the mobile device"). Subverting the claim language and requiring the ghost-mobile node to directly perform location prediction functions improperly imports limitations from the specification into the claims. *Promos Technologies, Inc. v. Samsung Elec. Co., Ltd.*, 809 Fed. App'x 825, 832-833 (Fed. Cir. 2020) (refusing to import embodiments from the specification into the claim language and noting "it is well established that claims may be broader than described embodiments").

The claims are agnostic as to which network component initially generates the pre-registration request using location prediction functions. Appx68, 12:64-67. Instead, the claims require only that the ghost-mobile node trigger signaling based on the mobile node's predicted location. *Id*. Mobility's citations to the record confirm this is what Liu discloses. For example, Mobility cites portions of Liu's relevant disclosures regarding the triggering process for initiating resource pre-allocation. Opening Brief at 61 (citing Appx483, 7:22-38) (emphasis omitted in part and added in part):

> The M-agent 50 is a representative of the user 21 in the network and is responsible in part for creating, deleting and managing the MF-agents on behalf of mobile users. **An M-agent 50 requests creation or assignment of MF-agents 52.** As shown in FIG. 7 **a mobile terminal 55 sends an MF-agent assignment request to its M-agent 50, in the local network**, with an address of a new location it is travelling to (701). The new location may be one that has been explicitly provided by the user 21, or it may be one predicted by the PMM functions 46. The assignment request is a request to establish (i.e., alternatively create or pre-assign) an MF agent 52 at the location

> that the mobile terminal 55 will be travelling to and thus have any necessary services and data ready for the mobile terminal, when it arrives at the new location. **The M-agent 50 then registers the request and forwards the request 65 to the remote MF-agent manager at the new location (702).**

As described in the passage above, Liu explains that the mobile terminal uses PMM functions to predict its future destination, sends a request to the M-agent to assign an MF-agent at this destination, and then the M-Agent transmits this request to the remote MF-agent manager to set up the data link between the mobile terminal and the foreign agent to have the resources ready for the mobile terminal when it arrives at the new location. Appx483, 7:22-38; *see also* Opening Brief at 62 (citing Appx32-33, which quotes Appx489, 19:4-14) ("The *combination* of the mobile floating agent concepts with the predictive mobility management allow for service and resource pre-arrangement.") (emphasis added).

Contrary to Mobility's contentions, it is the M-agent working in combination with the PMM functions of the mobile terminal that triggers the signaling to cause resources to be allocated prior to a mobile terminal reaching its next destination. Appx483, 7:22-38; Appx577-578, ¶ 84 ("Proxies may pair with location prediction mechanisms to anticipate the future location of a mobile device…Resource pre-allocation may then be triggered based off the predicted location information"). Indeed, the mobile terminal never directly communicates with the foreign agent at all prior to reaching its destination. Appx483, 8:7-15 (explaining that when the

mobile terminal finally reaches the new location, it registers with the MF-agent created or assigned for it there). That is the purpose behind employing proxies, such as the M-agent, in Liu's communication scheme—to act on behalf of the mobile terminal to trigger registration with a foreign agent in the foreign network. Appx577-580, ¶¶ 84-87; *see also id*. at Appx589-590, ¶ 98 (Unified's expert, Dr. Haas, similarly describing the M-agent triggering the pre-registration process regarding dependent claim 4).

Thus, consistent with the Board's findings, it is the M-agent's transmission of the pre-registration request to the MF-agent manager that trigger's the data link for signaling between the mobile terminal and the foreign agent prior to the mobile terminal arriving at the new location to facilitate a preemptive setup. Appx30-31, Appx489, 19:4-16, Appx577-580, ¶¶ 84-87.

The Boards decision about Liu as combined with Gwon should similarly not be disturbed for the same reasons discussed infra regarding Liu alone. Appx30-31 (finding Gwon's additional location prediction methods interchangeable with Liu's PMM functions and that the conjunction of Gwon's location prediction with Liu's proxy mobility agents renders obvious the claimed "triggering signals based on a predicted physical location of such mobile node").

III. An AIA IPR Proceeding is Not an Unlawful Taking of Property

For the first time on appeal, Mobility argues that retroactive application of *inter partes* review to a patent that issued before implementation of the AIA is a taking without just compensation under the Fifth Amendment. First, Mobility forfeited this challenge by failing to raise it before the Board as "[i]t is well-established that a party generally may not challenge an agency decision on a basis that was not presented to the agency." *In re DBC*, 545 F.3d 1373, 1378 (Fed. Cir. 2008). Indeed, "[w]hen a party raises arguments on appeal that it did not raise to the Board, they deprive[] the court of the benefit of the [Board's] informed judgment." *Acoustic Tech., Inc. v. Itron Networked Sols., Inc.*, 949 F.3d 1360, 1364 (Fed. Cir. 2020) (internal citations omitted); *see also Elgin v. Department of Treasury*, 567 U.S. 1, 23 (2012) (noting an agency's "expertise" can be "brought to bear" on constitutional challenges to statutes the agency regularly applies). And while this Court maintains "discretion to decide when to deviate from this general rule of waiver," that discretion is not unbounded. *Golden Bridge Tech., Inc. v. Nokia, Inc.*, 527 F.3d 1318, 1322-23 (Fed. Cir. 2008). The Court generally refrains from making an exception to the rule absent "a change in the jurisprudence of the reviewing court or the Supreme Court after consideration of the case by the lower court," or whether the "interest[s] of justice" warrant special consideration. *Id*.

Here, there has been no change in jurisprudence, nor has Mobility made any attempt to explain why it failed to present its constitutional argument to the Board below or provided exceptional circumstances weighing against a finding of waiver. As no special circumstances warrant review, the Court should find that Mobility waived these arguments.

Should this Court nonetheless address Mobility's argument, there is no reason to deviate from this Court's other recent decisions rejecting the same. For example, this Court examined the differences between pre-AIA reexamination and IPR proceedings and repeatedly held that IPR proceedings do not differ sufficiently from the reconsideration options available pre-AIA to constitute a Fifth Amendment taking. *Celgene Corp. v. Peter*, 931 F.3d 1342, 1360 (Fed. Cir. 2019), *cert. denied*, No. 19-1074, 2020 WL 3405867 (U.S. June 22, 2020) (comparing pre-AIA reexamination and IPRs and concluding the "differences do not disrupt the expectation that patent owners have had for nearly four decades—that patents are open to PTO reconsideration and possible cancellation[.]"); *see also Golden v. United States*, 955 F.3d 981, 989 (Fed. Cir. 2020) (confirming that subjecting pre-AIA patents to *inter partes* review is not an unconstitutional taking); *Christy, Inc. v. United States*, 971 F.3d 1332, 1336 (Fed. Cir. 2020) (same).

This Court itself has already addressed almost all of Mobility's arguments here, in detail. As explained in *Celgene*, IPRs and *ex parte* and *inter partes*

reexaminations share the same burdens of proof with immaterial differences in their procedures. *Celgene*, 931 F.3d at 1358-62. Though the claim construction standard in IPRs has changed since *Celgene*, the standard applied in IPRs is now more "favorable to the patent owner" than the standard used in pre-AIA reexamination proceedings. *Id*. at 1360, fn. 16. Mobility's only argument not explicitly addressed by *Celgene* is that IPR proceedings allow fewer opportunities to amend the claims than pre-AIA reexamination proceedings. This argument rings hollow here, as Mobility never requested *any* amendment during the IPR proceeding below. Thus, their asserted inability to seek *multiple* claim amendments cannot constitute a taking on these facts or on this record.

IV. Consistent with Controlling Precedent, Mobility's Appointments Clause Challenge Must Be Denied

Mobility offers a second constitutional argument, suggesting that despite this Court issuing its ruling in *Arthrex* before the Board's Final Written Decision, the APJs who instituted the IPR proceeding and conducted the hearings "held office in violation of the Appointments Clause." Opening Brief at 56. This Court has considered and rejected this identical argument twice, and should do the same here. *Caterpillar Paving Prod. Inc. v. Wirtgen Am., Inc*., 957 F.3d 1342, 1343 (Fed. Cir. 2020) (explaining that *Arthrex* was limited 'to those cases where final written decisions were issued') (quoting *Arthrex, Inc. v. Smith & Nephew, Inc*., 941 F.3d 1320, 1340 (Fed. Cir. 2019); *see also Document Security Systems, Inc. v. Nichia*

Corporation, 813 Fed. App'x 599, 600 (Fed. Cir. 2020) (holding that "[b]ecause the Board's final written decision in this matter issued after [] Arthrex, [Appellant] has not demonstrated that Arthrex compels remand").

V. Mobility's Remaining Constitutional Due Process Considerations

Regarding Mobility's newly raised constitutional due process and APA arguments about the PTAB's implementation of the America Invents Act (*see* Opening Brief at 28-45), the USPTO has intervened in this appeal and will be addressing those issues. Unified joins with and defers to the USPTO's arguments there.

CONCLUSION

For at least these reasons, this Court should affirm the Board's Final Written Decision finding Claims 1, 2, 4, 5, and 7 obvious over Liu or Liu in view of Gwon, and/or IETF RFC 2402, or Lau, and reject Appellants attempt to side-step this ruling with a swath of newly raised constitutional attacks.

Dated: November 9, 2020

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CERTIFICATE OF FILING AND SERVICE

I hereby certify that, on November 9, 2020, I electronically filed the foregoing with the Clerk of Court using the CM/ECF System, which will send notice of such filing to all registered users.

I further certify that, upon acceptance and request from the Court, the required paper copies of the foregoing will be deposited with United Parcel Service for delivery to the Clerk, UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, 717 Madison Place, N.W., Washington, D.C. 20439.

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