

Case IPR2025-00756
Patent No. 10,764,803
Patent Owner's Response

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

ONEPLUS TECHNOLOGY (SHENZHEN) CO., LTD.,
Petitioners,

v.

PANTECH CORPORATION,
Patent Owner

Case: IPR2025-00756

U.S. Patent No. 10,764,803

**PATENT OWNER'S RESPONSE TO PETITION
FOR INTER PARTIES REVIEW OF U.S. PATENT NO. 10,764,803**

Mail Stop **Patent Board**
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

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Statutes

35 U.S.C. § 1035, 12
35 U.S.C. § 103(a)12

PATENT OWNER's EXHIBIT LIST

Exhibit No.	Description
2001	Second Amended Docket Control Order, <i>Pantech Corporation and Pantech Wireless, LLC v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:24-CV-00038-RWS-JBB (E.D. Tex.) (Dkt. 58) (May 13, 2025)
2002	United States District Courts – National Judicial Caseload Profile
2003	Pantech Corporation's July 9, 2021 Notice Letter to OnePlus Technology Co., Ltd.
2004	Third Amended Docket Control Order, <i>Pantech Corporation and Pantech Wireless, LLC v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:24-CV-00038-RWS-JBB (E.D. Tex.) (Dkt. 86) (July 17, 2025)
2005	Order Modifying Dates in Docket Control Order, <i>Pantech Corporation and Pantech Wireless, LLC v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:24-CV-00038-RWS-JBB (E.D. Tex.) (Dkt. 85) (July 17, 2025)
2006	Jury Verdict, <i>Pantech Corp. v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:22-cv-00069-RWS (E.D. Tex.) (Dkt. 259) (April 1, 2024)
2007	Final Judgment, <i>Pantech Corp. v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:22-cv-00069-RWS (E.D. Tex.) (Dkt. 499) (Jan. 23, 2025)
2008	Kiri Gupta & Urska Petrovcic, <i>Evidence of Systematic "Patent Holdout"</i> , 38 Berkeley Tech. L. J. (2023)

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2009	Richard A. Epstein & Kayvan B. Noroozi, <i>Why Incentives for "Patent Holdout" Threaten to Dismantle FRAND, and Why It Matters</i> , 32 Berkeley Tech. L.J. 1381 (2017)
2010	Kalyan Dasgupta & David J. Teece, <i>Protecting Innovation in the Mobile Wireless Ecosystem: Understanding & Addressing "Hold-Out"</i> , 38 Berkeley Tech. L.J. 313 (2023)
2011	<i>Markman Order, Pantech Corporation and Pantech Wireless, LLC v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:24-CV-00038-RWS-JBB (E.D. Tex.) (Dkt. 90) (July 30, 2025)
2012	U.S. Patent Application Publication No. 2005/0111389
2013	Deposition Transcript of Dr. Apostolos Kakaes, Ph.D, taken February 28, 2026.
2014	Declaration of Dr. Todor Cooklev, dated March 10, 2026

I. INTRODUCTION

Patent Owner Pantech Corporation (“Pantech”) respectfully requests that United States Patent and Trademark Office (“USPTO” or the “Office”) Patent Trial and Appeal Board (“PTAB” or the “Board”) confirm the patentability of claims 1, 2, 5-8, 11, and 12 (the “challenged claims”) of U.S. Patent No. 10,764,803 (“the ‘803 Patent”). Petitioner OnePlus Technology (Shenzhen) Co., Ltd. (“Petitioner” or “OnePlus”) has failed to show by a preponderance of the evidence that the challenged claims are unpatentable.

For Ground 1, Petitioner’s cited references are not prior art to the challenged claims because the challenged claims are entitled to an August 25, 2004 priority date, well before the publication date of the references that Petitioner relies upon. Petitioner’s arguments to the contrary amount to a “missing words” theory—a literalist assertion that the challenged claims lack written description support simply because the specific phrase “configuration information” does not appear in the parent applications—which fails as a matter of law. While the priority support for the challenged claims is clear, Federal Circuit precedent also establishes that the written description requirement does not require the specification to recite the invention *in haec verba* or literal matching. *In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983).

Petitioner's primary reference for Grounds 2 and 3, Ericsson, lacks critical elements of the independent challenged claims, and these critical deficiencies are not overcome by the secondary references relied upon under a theory of obviousness. Ericsson, whether in combination with TS 25.331 alone or with both TS 25.331 and Sebire, fails to render obvious each challenged claim of the '803 Patent, whereby the WTRU is connected to a "primary cell" and "one or more non-primary cells." Ericsson describes a hard handover where resources are released in the source cell before being assigned in the new cell—a binary switch from one cell to another rather than the coordinated association claimed by the '803 Patent.

Petitioner's own expert, Dr. Kakaes, admitted that in the Ericsson system, there is no simultaneous reception of High Speed Downlink Shared Channel (HS-DSCH) from two cells. EX2013 at 36:3-8. This fundamental deficiency and departure from the requirements of the challenged claims. Furthermore, this deficiency cannot be cured by Petitioner's proffered secondary references, TS 25.331 or Sebire, because neither of these references disclose or suggest the claimed primary/non-primary cell architecture.

Accordingly, for the reasons herein, Petitioner has failed to meet its burden of showing by a preponderance of the evidence that any of claims 1, 2, 5-8, 11, and 12 are rendered obvious based on any of Grounds 1-3. The Board should confirm the

patentability of the '803 Patent.

II. BACKGROUND

A. Overview of the '803 Patent

The '803 Patent relates to the field of wireless communications. More particularly, the invention of the '803 Patent is related to operation during a soft handover in a wireless communication system. EX1001 at 1:23-25; EX2014 ¶ [40]. The '803 Patent is directed to solving problems arising because then-current standards did not define specific protocols to transfer necessary information which are imperative in operation of enhanced uplink (EU) during soft handover so that radio resources may be scheduled and EU connections are properly handed over. *See id.* at 2:48-3:13; EX2014 ¶ [41].

The '803 Patent teaches an architecture where a WTRU is connected “with more than one cell [] which are controlled by the same Node-B,” (EX1001 at 8:45-46) and “[o]ne of the[se] cells 808 may be designated as a primary cell 808a, while other cells are designated as non-primary cells 808b.” EX1001 at 9:4-6. This primary/non-primary cell architecture enables coordinated scheduling where the primary cell serves as a signaling proxy, providing shared channel indicators for the non-primary cells. EX2014 ¶ [42]. The '803 Patent discloses that “the primary cell 808a sends a message on any of the downlink shared channels allocated to the WTRU 802,” and “the message carries a shared channel indicator for non-primary

cells 808b.” EX1001 at 9:6-9; EX2014 ¶ [43].

B. Relevant '803 Patent Prosecution History

The '803 Patent is entitled “Enhanced uplink operation in soft handover,” issued on September 1, 2020, and claims priority to U.S. Patent Application No. 15/212,403, filed on Jul. 18, 2016; U.S. Patent Application No. 13/236,133, filed on Sep. 19, 2011; U.S. Patent Application No. 10/925,426, filed on Aug. 25, 2004; U.S. Provisional Application No. 60/497,747 filed on Aug. 25, 2003; U.S. Provisional Application No. 60/507,554 filed on Oct. 1, 2003; U.S. Provisional Application No. 60/508,797 filed on Oct. 3, 2003; U.S. Provisional Application No. 60/520,207 filed on Nov. 14, 2003; and U.S. Provisional Application No. 60/585,174 filed on Jul. 2, 2004. EX1001 at 1:7-19.

During the prosecution of the application that led to the '803 Patent, the claims at issue were examined at length for their novelty, including in view of U.S. Patent No. 7,606,205 (“Ranta-Aho”), U.S. Patent No. 6,970,716 (“Rune '716”), U.S. Patent No. 6,650,905 (“Toskala”), U.S. Patent No. 7,266,384 (“Kim”), U.S. Patent No. 6,829,482 (“Rune '482”), U.S. Application Publication No. 2003/0147370 (“Wu”), U.S. Patent No. 8,023,463 (“Dick”), and U.S. Patent No. 7,372,898 (“Shin”). EX1001 at Cover, Reference Cited. In response to a rejection of the initial set of claims based on Ranta-Aho and Wu (*see* EX1002 at 151-54), the applicant pointed

out to the examiner the limitations of Ranta-Aho (namely, the lack of any teaching of a network node or base station having multiple cells or a handset receiving transmissions from multiple cells). *See* EX1002 at 109-14. In response to a final rejection that largely repeated the grounds for alleged invalidity (*id.* at 81-85), the applicant amended the claims to, inter alia, clarify that the primary cell is associated with a wireless network node and one or more non-primary cells are associated with the wireless network node, to emphasize the distinction from Ranta-Aho. *Id.* at 49-61.

Following this response, the claims were allowed and the examiner quoted this amendment in the reasons for allowance, among other claim language. *See id.* at 30-31.

C. Summary of Petitioner's Proposed Grounds for Unpatentability

Petitioner contends that claims 1, 2, 5-8, 11, and 12 of the '803 Patent would have been obvious under both pre- and post-AIA 35 U.S.C. § 103 (the applicable provision depends on the effective filing date of the challenged claims, which is disputed). The Petition raises three grounds of alleged unpatentability based on the following references:

1. 3GPP Technical Document R2-020088 ("Ericsson");
2. 3GPP TS 25.331 V5.5.0 ("TS 25.331");

3. PCT Application No. PCT/IB02/04293 (“Sebire”);
4. 3GPP TS 36.300 V10.6.0 (“TS 36.300”);
5. 3GPP TS 36.321 V10.6.0 (“TS 36.321”); and
6. 3GPP TS 36.331 V10.6.0 (“TS 36.331”).

The specific grounds of alleged invalidity are summarized as follows:

Ground	Basis	Claims	References
1	§103 (post-AIA)	1, 5-7, 11, and 12	TS36.300 in view of TS36.321 and TS36.331
2	§103 (pre-AIA)	1, 2, 5-8, 11 and 12	Ericsson in view of TS 25.331
3	§103 (pre-AIA)	5-6 and 11-12	Ericsson in view of TS 25.331 and Sebire

D. Petitioner's Relied-Upon References

The six references relied upon by Petitioner are summarized as follows:

1. *Overview of Ericsson (Ex. 1005)*

3GPP Technical Document R2-020088 (“Ericsson”) is a submission to 3GPP’s servers on January 4, 2002 from Ericsson. EX1005. Ericsson is associated with 3GPP TSG-RAN WG2#26. *Id.* Ericsson’s title is “Mobility examples when the UE has an HS-PDSCH assignment.” *Id.*

2. Overview of TS 25.331 (Ex. 1006)

3GPP TS 25.331 V5.5.0 (“TS 25.331”) is a technical specification from the 3rd Generation Partnership Project published in June, 2003. EX1006. TS 25.331 specifies the Radio Resource Control protocol for the UE-UTRAN radio interface. *See id.* at 27.

3. Overview of Sebire (Ex. 1005)

PCT Application No. PCT/IB02/04293 (“Sebire”) is an international patent application published on April 24, 2003 as WO 03/034766. EX1005 at 1. Sebire is titled “A Handover Method” and purports to set forth “[a] method of handing over user equipment from a source cell to a target cell in a cellular communications network comprises the steps of sending to the user from the source Temporary Block Flow (TBF) link information for the target cell, while the user is associated with said source.” EX1007 at 1.

4. Overview of TS 36.300 (Ex. 1008)

3GPP TS 36.300 V10.6.0 (“TS 36.300”) is a technical specification from the 3rd Generation Partnership Project published in December, 2011. TS 36.300 provides an overview and overall description of the E-UTRAN radio interface protocol architecture. *See* EX1008 at 13.

5. Overview of TS 36.321 (Ex. 1009)

3GPP TS 36.321 V10.6.0 (“TS 36.321”) is a technical specification from the

3rd Generation Partnership Project published in September, 2012. TS 36.321 specifies the E-UTRA MAC protocol. *See* EX1009 at 6.

6. Overview of TS 36.331 (Ex. 1010)

3GPP TS 36.331 V10.6.0 (“TS 36.331”) is a technical specification from the 3rd Generation Partnership Project published in June, 2012. TS 36.331 specifies the Radio Resource Control protocol for the radio interface between UE and E-UTRAN as well as for the radio interface between RN and E-UTRAN.” *See* EX1010 at 14.

III. CLAIM CONSTRUCTION

A. District Court Claim Construction

In an earlier district court proceeding (*Pantech Corp. et al. v. OnePlus Tech. (Shenzhen) Co., Ltd.*, No. 5:24-cv-00038-RWS-JBB (E.D. Tex.)), Petitioner requested a claim construction of the terms “wireless network node,” “primary cell,” “one or more non-primary cells,” and “downlink shared channel transmission.” The Magistrate Judge rejected Petitioner’s proposed constructions, applying a plain and ordinary meaning for the first three terms, and construing “downlink shared channel transmission” as “a transmission in a downlink shared channel.” EX2011 at 38. Patent Owner likewise applies the plain and ordinary meaning of all terms, except for “downlink shared channel transmission,” for which, for the reasons explained by the Magistrate Judge, it applies the Magistrate Judge’s construction. EX2011 at 36-37.

B. The claimed “Primary Cell” and “Non-Primary Cell” Require Simultaneous Connection

In its Institution Decision (Paper 14; “ID”), the Board determined that “[i]n light of the parties’ arguments and evidence, we find that it is necessary to construe ‘primary,’ and thus ‘non-primary.’” ID at 6-7. The Board then determined, on the preliminary record and without the benefit of argument from Patent Owner, that “the terms ‘primary’ and ‘non-primary’ recited in claims 1 and 7 are not limited to cells connected to a WTRU at the same time.” *Id.* at 7-9.

Respectfully, the Board’s preliminary determination that “primary” and “non-primary” cells do not need to be connected to the WTRU at the same time is fundamentally at odds with the technical reality and intrinsic evidence of the ’803 Patent. The plain and ordinary meaning of “primary cell” and “non-primary cell”—and indeed the only meaning consistent with the specification and the functional requirements of the claims—is that these are cells to which the WTRU is simultaneously connected. EX2014 ¶ [52]. The terms describe a coordinated set of cells with operational roles, not temporal labels for cells in a sequential transition. EX2014 ¶ [53]. In a coordinated set, the primary cell and non-primary cell(s) each have distinct, concurrent functions—the primary cell provides signaling, coordination, and one main data path, while the non-primary cell(s) provide additional data paths. EX2014 ¶ [53]. This architecture is distinct from a sequential

transition architecture, where primary and non-primary cells are not used and, rather, “source” and “target” describe which cell the WTRU is connected to before (the “source”) and after (the “target”) a handover event. EX2014 ¶ [53]. The specification of the '803 patent expressly requires simultaneous connections. There is no other basis in the intrinsic record for the primary/non-primary distinction.

1. **The Specification Requires Simultaneous Connection**

The '803 Patent solves problems specific to soft handover and softer handover, where a WTRU maintains active connections to multiple cells. EX1001 at 1:39-43, 1:50-55; EX2014 ¶ [54]. The specification teaches a “softer handover” architecture where a WTRU “establishes connections with more than one cell 808 which are controlled by the same Node-B 804.” EX1001 at 8:42-46; EX2014 ¶ [55]. It then specifies that within this already connected set, “[o]ne of the cells 808 may be designated as a primary cell 808a, while other cells are designated as non-primary cells 808b.” EX1001 at 9:4-6; EX2014 ¶ [56]. Figures 8A and 8B confirm this architecture, showing a WTRU 802 with established, concurrent links to multiple cells of a single Node-B. EX1001 at Figs. 8A-8B; EX2014 ¶ [57]. There is no other meaning of “primary” and “non-primary” used in the '803 Patent. A POSITA would understand from this intrinsic evidence that “primary” and “non-primary” cells are, by definition, cells to which the WTRU is simultaneously connected. EX2014 ¶ [57].

2. The Claim Language Requires Simultaneous Connection

The claim language itself confirms that the WTRU must be connected to both the primary and non-primary cells at the same time. Claim limitation [1.e] recites “receive a message on the primary cell, the received message including an indication of at least one of the one or more non-primary cells from which the WTRU is to receive a downlink shared channel transmission.” EX1001 at 10:49-53; EX2014 ¶ [58]. Claim limitation [7.b] recites “receiving, by the WTRU, a message on the primary cell, the received message including indication of at least one of the one or more non-primary cells from which the WTRU is to receive a downlink shared channel transmission.” EX1001 at 11:16-20; EX2014 ¶ [59]. In other words, Claims 1 and 7 require the WTRU to receive a message “on the primary cell” containing an “indication” of a non-primary cell from which to receive data. This sequence only makes sense if, at the time the WTRU receives the indication on the primary cell, the non-primary cell is a cell to which the WTRU is connected. EX2014 ¶¶ [60-63].

The dependent claims reinforce this understanding. Claim 5 recites that the WTRU is “configured to cause the WTRU to receive a grant for an uplink transmission from the primary cell.” EX1001 at 11:1-5; EX2014 ¶ [64]. Claim 6 further requires the WTRU “to process an acknowledgement/negative acknowledgement to the uplink transmission received only from the primary cell.”

EX1001 at 11:6-10; EX2014 ¶ [65]. Claims 11 and 12 recite parallel limitations. EX1001 at 11:34-37; 12:1-3; EX2014 ¶ [66]. These functional requirements are nonsensical if the “primary cell” refers to a cell that the WTRU is no longer connected to. Rather, these limitations only make sense if the primary cell connection persists while the WTRU simultaneously performs operations involving the non-primary cell(s). EX2014 ¶ [66].

IV. LEGAL STANDARDS FOR INVALIDITY

A. Obviousness under 35 U.S.C. § 103

A claim is not patentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious to a person of ordinary skill in the art at the time of the invention. 35 U.S.C. § 103(a).¹ Obviousness requires assessing (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long felt but unsolved needs, failure of others, etc.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966)).

¹ Differences between pre- and post- AIA § 103 are not pertinent to this section as written.

It is a petitioner's burden "to demonstrate both 'that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.'" *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367-68 (Fed. Cir. 2016) (quotations and citations omitted). However, a petitioner must first show that all of the claimed elements are disclosed in the prior art. *See Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1164 (Fed. Cir. 2006) (considering motivation to combine and reasonable expectation of success only "if all the elements of an invention are found in a combination of prior art references").

V. THE PETITION DOES NOT SHOW ANY CHALLENGED CLAIM IS RENDERED OBVIOUS BY A PREPONDERANCE OF THE EVIDENCE

Petitioner has failed to show by a preponderance of the evidence that any of Grounds 1-3 renders obvious claims 1, 2, 5-8, 11, and 12. Therefore, Patent Owner respectfully submits that the Board should confirm the patentability of all Challenged Claims.

A. Ground 1: Petitioner Fails To Establish that the Effective Filing Date of the Challenged Claims Post-Dates Its Prior Art.

It is undisputed that the prior art references on which Ground 1 relies were published between December, 2011 (for TS 36.300) and September, 2012 (for TS

36.321). Pet. at 18-20. It is also undisputed that these references (TS 36.300, TS 36.321, and TS 36.331) are also relied upon in Patent Owner's infringement contentions in the related District Court litigation. *Id.*

Thus, the key dispute for Ground 1 is the effective filing date of the Challenged Claims of the '803 Patent, and specifically whether this effective filing date comes before September 21, 2012 (the publication date of TS 36.321). It does. A secondary dispute may arise because the Petition makes no allegations of effective priority date applicable to Challenged Claims 7, 8, 11, and 12, and therefore Ground 1 does not apply to these claims.

To begin with, the Challenged Claims of the '803 Patent are entitled to at least a 2004 priority date. The application that led to the issuance of the '803 was a continuation of U.S. Patent App. No. 15/212,403, filed on Jul. 18, 2016, which is a continuation of U.S. Patent App. No. 13/236,133 filed on Sep. 19, 2011, which is a continuation of U.S. Patent App. No. 10/925,426, filed on Aug. 25, 2004. EX1001 at 1:7-18. As established by the testimony of Dr. Cooklev and a straightforward reading of the evidence cited in the chart below, priority support in the '426

Application is provided for every claim element of the challenged claims.²

'803 Patent Claim Element	Exemplary, non-exclusive support in the '426 application (EX2012)
[1.pre] A wireless transmit/receive unit (WTRU) comprising:	EX2012 at ¶¶ [0003], [0013], [0025] (disclosing a “wireless transmit/receive unit (WTRU)” operating in a “wireless communication system”); <i>see also</i> EX2014 ¶ [73]
[1.a] a transceiver; and	EX2012 at ¶¶ [0011], [0052] (disclosing a WTRU that monitors channels to detect downlink messages and transmits data packets). A POSITA would understand that a unit capable of monitoring, receiving, and transmitting requires a transceiver. <i>See</i> EX2014 ¶ [74]
[1.b] a processor; and	EX2012 at ¶¶ [0010], [0013] (disclosing control parameters and logic performed by the WTRU to manage radio resources for “EU transmissions”). POSITA would understand that managing signaling logic and H-ARQ procedures inherently requires a processor. <i>See</i> EX2014 ¶ [75]

² Because they are continuation applications, the same support is present in every intervening application between the '803 Patent and the '426 Application.

<p>[1.c] wherein the transceiver and the processor are configured to cause the WTRU to, while a primary cell is associated with a wireless network node and one or more non-primary cells are associated with the wireless network node:</p>	<p>EX2012 at ¶¶ [0006], [0049], [0053]; FIG. 8A (disclosing a “softer handover” state where a “WTRU is connected to two or more cells belonging to the same Node-B” and “[o]ne of the cells 808 may be designated as a primary cell 808a, while other cells are designated as non-primary cells 808b”). POSITA would understand that being “connected to... the same Node-B” is technically equivalent to being associated with a wireless network node. <i>See</i> EX2014 ¶ [76]</p>
<p>[1.d] receive configuration information for the primary cell and the one or more non-primary cells;</p>	<p>EX2012 at ¶¶ [0011], [0057] (disclosing that the “RNC 1006 sends messages to... the WTRU 1002 to inform the selected cells for the active set to support soft handover for EU”). POSITA would understand that informing the WTRU of the selected cells for the active set constitutes providing configuration information for those cells. <i>See</i> EX2014 ¶ [77]</p>
<p>[1.e] receive a message on a downlink shared channel of the primary cell, the message including an indication of at least one of the one or more non-primary cells from which the WTRU is to receive a downlink shared channel transmission; and</p>	<p>EX2012 at ¶ [0053]; FIG. 8B (disclosing the “primary cell 808a sends a message on any of the downlink shared channels... [which] carries a shared channel indicator for non-primary cells 808b”). POSITA would understand that a “shared channel indicator” is the literal “indication” recited in the claim. <i>See</i> EX2014 ¶ [78]</p>

<p>[1.f] in response to the received message, receive and process the downlink shared channel transmission from the indicated at least one of the one or more non-primary cells.</p>	<p>EX2012 at ¶ [0053]; FIG. 8B (disclosing that the “WTRU 802 reads shared channel indicator... Then, the WTRU 802 receives messages from the non-primary cells 808b indicated by the shared channel indicator”). POSITA would understand that the sequence described establishes a causal “in response to” link for receiving transmissions from the indicated cells. <i>See</i> EX2014 ¶ [79]</p>
<p>[2] The WTRU of claim 1 wherein there is a time delay between the downlink shared channel transmission and the receipt of the message by the WTRU.</p>	<p>EX2012 at ¶ [0053] (explicitly disclosing a “timing offset between the transmission of the shared channel indicator from the primary cell 808a and the transmission of messages from non-primary cells 808b”). POSITA would understand that a “timing offset” in this context is the technical disclosure of the claimed “time delay.” <i>See</i> EX2014 ¶ [80]</p>
<p>[3] The WTRU of claim 1 wherein the transceiver and the processor are further configured to cause the WTRU to, in response to the received message, monitor downlink channels of only the primary cell for the message.</p>	<p>EX2012 at ¶¶ [0053], [0054] (disclosing the WTRU first monitors shared channels from the primary cell while non-primary cells switch off downlink signaling). POSITA would understand that non-primary cells switching off signaling while the WTRU monitors the primary cell supports monitoring only the primary cell. <i>See</i> EX2014 ¶ [81]</p>

<p>[4] The WTRU of claim 1 wherein the transceiver and the processor are further configured to cause the WTRU to monitor a plurality of downlink control channels for the message.</p>	<p>EX2012 at ¶¶ [0052], [0053] (disclosing the WTRU monitors shared channels, with the number potentially limited to up to 4). POSITA would understand that monitoring up to 4 shared channels constitutes monitoring a plurality of downlink control channels. <i>See</i> EX2014 ¶ [82]</p>
<p>[5] The WTRU of claim 1 wherein the transceiver and the processor are further configured to cause the WTRU to receive a grant for an uplink transmission from the primary cell and to transmit the uplink transmission based on the received grant.</p>	<p>EX2012 at ¶¶ [0013], [0025], [0059] (disclosing that the WTRU transmits data packets via Enhanced Uplink (EU) and the “primary Node-B 1004a performs scheduling and assigning radio resources to the WTRU 1002”). POSITA would understand that assigning radio resources for EU transmissions constitutes providing a grant for an uplink transmission. <i>See</i> EX2014 ¶ [83]</p>
<p>[6] The WTRU of claim 5 wherein the transceiver and the processor are further configured to cause the WTRU to process an acknowledgement/negative acknowledgement to the uplink transmission received only from the primary cell.</p>	<p>EX2012 at ¶¶ [0013], [0054] (disclosing H-ARQ is controlled “only by the primary Node-B” and that “Node-B 804 transmits downlink messages via the primary cell 808a, while all non-primary cells 808b switch off the downlink signaling”). <i>See</i> EX2014 ¶ [84]</p>
<p>[7.pre] A method comprising:</p>	<p>EX2012 at ¶¶ [0013], [0025] (disclosing a “system 100 and a process 150” and “methods for EU operation in soft handover”). <i>See</i> EX2014 ¶ [85]</p>

<p>[7.a] receiving, by a wireless transmit/receive unit (WTRU), configuration information for a primary cell and one or more non-primary cells, wherein the primary cell is associated with a wireless network node and the one or more non-primary cells are associated with the wireless network node;</p>	<p>EX2012 at ¶¶ [0011], [0053], [0057] (disclosing coordination of active set cells belonging to the same Node-B via RRC control procedures and messages to inform the WTRU of the selected cells). POSITA would understand that informing the WTRU of cells belonging to the same Node-B satisfies the association requirement. <i>See</i> EX2014 ¶ [86]</p>
<p>[7.b] receiving, by the WTRU, a message on the primary cell, the received message including indication of at least one of the one or more non-primary cells from which the WTRU is to receive a downlink shared channel transmission; and</p>	<p>EX2012 at ¶ [0053] (disclosing primary cell messages identifying channels for non-primary cells). <i>See</i> EX2014 ¶ [87]</p>
<p>[7.c] in response to the received message, receiving and processing, by the WTRU, the downlink shared channel transmission from the indicated at least one of the one or more non-primary cells.</p>	<p>EX2012 at ¶ [0053] (disclosing that the WTRU receives messages from non-primary cells indicated by the indicator and “combines the messages... using a technique, such as maximum ratio combining”). A POSITA would have known that maximum ratio combining is a type of processing of wireless signals. <i>See</i> EX2014 ¶ [88]</p>
<p>[8] The method of claim 7 wherein there is a time delay between the downlink shared channel transmission and the receipt of the message by the WTRU.</p>	<p>EX2012 at ¶ [0053] (disclosing a “timing offset” between the indicator transmission and non-primary cell messages). POSITA would understand that this “timing offset” supports the claimed time delay. <i>See</i> EX2014 ¶ [89]</p>

<p>[9] The method of claim 7 wherein the WTRU, in response to the received message, monitors downlink channels of only the primary cell for the message.</p>	<p>EX2012 at ¶¶ [0053], [0054] (disclosing the WTRU monitors the primary cell while non-primary cells “switch off the downlink signaling”). <i>See</i> EX2014 ¶ [90]</p>
<p>[10] The method of claim 7 wherein the WTRU monitors a plurality of downlink control channels for the message.</p>	<p>EX2012 at ¶¶ [0052], [0053] (disclosing the WTRU monitors shared channels from involved cells, limited to up to 4). <i>See</i> EX2014 ¶ [91]</p>
<p>[11] The method of claim 7 further comprising receiving, by the WTRU, a grant for an uplink transmission from the primary cell and transmitting, by the WTRU, the uplink transmission based on the received grant.</p>	<p>EX2012 at ¶¶ [0013], [0025], [0059] (disclosing scheduling and resource assignment for EU transmissions and the receipt of data packets transmitted from the WTRU). <i>See</i> EX2014 ¶ [92]</p>
<p>[12] The method of claim 11 further comprising processing, by the WTRU, an acknowledgement/negative acknowledgement to the uplink transmission received only from the primary cell.</p>	<p>EX2012 at ¶¶ [0013], [0025], [0054], [0059] (disclosing that the WTRU transmits “data packets” via “Enhanced Uplink (EU)” and the primary Node-B controls feedback while non-primary cells “switch off the downlink signaling”). <i>See</i> EX2014 ¶ [93]</p>
<p>[13.pre] 13. A wireless network node comprising:</p>	<p>EX2012 at ¶ [0024] (disclosing a “Node-B includes but is not limited to a base station, site controller, access point or any other type of interfacing device”). <i>See</i> EX2014 ¶ [94]</p>
<p>[13.a] a transceiver; and</p>	<p>EX2012 at ¶¶ [0011], [0052] (disclosing that the Node-B sends messages including ACK/NACK via involved cells and receives data packets from the WTRU). POSITA would understand that a node transmitting signaling and receiving data packets requires a transceiver. <i>See</i> EX2014 ¶ [95]</p>

<p>[13.b] a processor; and</p>	<p>EX2012 at ¶¶ [0010], [0013] (disclosing control parameters and logic performed by the Node-B to manage radio resources for “EU transmissions”). POSITA would understand that managing signaling logic and H-ARQ procedures inherently requires a processor. <i>See</i> EX2014 ¶ [96]</p>
<p>[13.c] wherein the transceiver and the processor are configured to cause the wireless network node to, while a primary cell is associated with the wireless network node and one or more non-primary cells are associated with the wireless network node</p>	<p>EX2012 at ¶¶ [0006], [0049], [0053]; FIG. 8A (disclosing a “softer handover” state where “cells belonging to the same Node-B” are “designated as a primary cell 808a” or “non-primary cells 808b”). POSITA would understand that “belonging to the same Node-B” is the technical disclosure for being associated with a specific wireless network node. <i>See</i> EX2014 ¶ [97]</p>
<p>[13.d] transmit, to a wireless transmit/receive unit (WTRU), configuration information for the primary cell and the one or more non-primary cells; and</p>	<p>EX2012 at ¶¶ [0011], [0057] (disclosing that the RNC sends messages to the Node-Bs and WTRU to coordinate the active set). <i>See</i> EX2014 ¶ [98]</p>
<p>[13.e] transmit, to the WTRU, a message on the primary cell, the transmitted message including an indication of at least one of the one or more non-primary cells that a downlink shared channel transmission is scheduled.</p>	<p>EX2012 at ¶ [0053] (disclosing that the primary cell sends a message carrying a shared channel indicator). <i>See</i> EX2014 ¶ [99]</p>

<p>[14] The wireless network node of claim 13 wherein the transceiver and the processor are configured to cause the wireless network node to transmit the downlink shared channel transmission on the indicated at least one of the one or more non-primary cells.</p>	<p>EX2012 at ¶ [0053] (disclosing that non-primary cells 808b transmit messages on the channels indicated by the primary cell). <i>See</i> EX2014 ¶ [100]</p>
<p>[15] The wireless network node of claim 13 wherein there is a time delay between the downlink shared channel transmission and the transmitted message.</p>	<p>EX2012 at ¶ [0053] (disclosing a “timing offset” between the indicator transmission and non-primary cell messages). POSITA would understand that this “timing offset” supports the claimed time delay. <i>See</i> EX2014 ¶ [101]</p>
<p>[16] The wireless network node of claim 13 wherein the transceiver and the processor are configured to cause the wireless network node to transmit a grant for an uplink transmission from the primary cell and to receive the uplink transmission based on the grant.</p>	<p>EX2012 at ¶¶ [0013], [0025], [0059] (disclosing that the “primary Node-B 1004a performs scheduling and assigning radio resources to the WTRU 1002” for “EU transmissions” and receives “data packets”). POSITA would understand that assigning radio resources for EU transmissions requires transmitting a grant. <i>See</i> EX2014 ¶ [102]</p>
<p>[17] The wireless network node of claim 16 wherein the transceiver and the processor are configured to cause the wireless network node to transmit an acknowledgement/negative acknowledgement to the uplink transmission only on the primary cell.</p>	<p>EX2012 at ¶¶ [0013], [0054] (disclosing that the “primary Node-B controls... H-ARQ” and that non-primary cells “switch off the downlink signaling”). POSITA would understand that if the node controls H-ARQ feedback and disables signaling on non-primary cells, the resulting transmission occurs exclusively on the primary cell. <i>See</i> EX2014 ¶ [103]</p>

Petitioner's attempts to break the priority of the '803 Patent to the '426

Application (effectively a written description attack in disguise, as the specification of the '803 Patent is the same as the '426 Application) fail. The Petition provides two arguments in this regard, both concerning only claim 1: (1) “a primary cell is associated with a wireless network node and one or more non-primary cells are associated with the wireless network node,” and (2) causing a WTRU to “receive configuration information for the primary cells and the one or more non-primary cells.” *See* Pet. at 10. In Petitioner's Reply (Paper 12), Petitioner adds arguments that (3) “the '803 patent makes no mention of carrier aggregation” and (4) “the challenged claims of the '803 patent require ‘configuration information’ in the context of ‘softer handover’ for a single primary node.” *See* Reply at 1-3. Each argument fails for the reasons set forth below

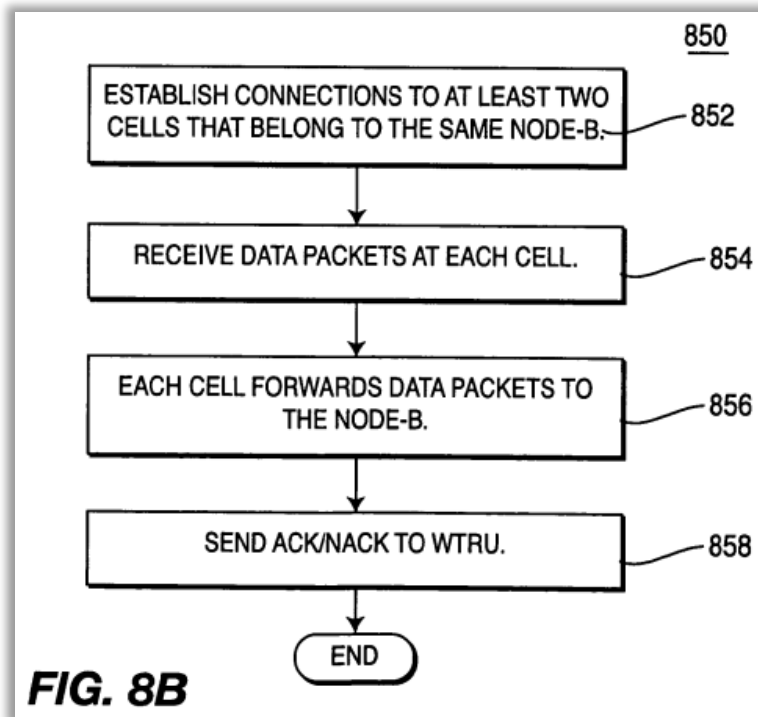
1. **The '426 Application Explicitly Describes Primary and Non-Primary Cells Associated with a Node**

Petitioner's argument that claim 1 lacks priority support for the claim element “a primary cell is associated with a wireless network node and one or more non-primary cells are associated with the wireless network node” is incorrect. Pet. at 10-11.

As discussed in Section III.B, *supra*, the plain and ordinary meaning of “primary cell” and “non-primary cell” is that these are cells to which the WTRU is **simultaneously connected**. The terms describe a coordinated set of cells with

different operational roles (one primary, and one or more non-primary), not temporal labels for cells in a sequential transition. The '426 Application discloses exactly this architecture. The '426 Application describes a “softer handover” architecture where a WTRU “establishes connections with more than one cell 808 which are controlled by the same Node-B 804.” EX2012 at ¶ [0049]; EX2014 at ¶ [0055]. The specification then states that “[o]ne of the cells 808 may be designated as a primary cell 808a, while other cells are designated as non-primary cells 808b.” EX2012 at ¶ [0053]; Fig. 8A. This is not a sequential transition from one cell to another—it is a coordinated set of cells to which the WTRU is simultaneously connected, with the primary cell and non-primary cell(s) each having distinct, concurrent functions. EX2014 ¶ [116].

Establishing connections to at least two cells belonging to the same base station is also set forth in Fig. 8B of the '426 Application:



EX2012 at Fig. 8B.

Petitioner does not acknowledge Figures 8A and 8B, but acknowledges (as it must) at least part of the corresponding description in the written specification of the '803 Patent. *See* Pet. at 11-12 (citing '803 Patent at 8:44-50). Petitioner then concedes that “[w]hile the above quoted passage from the '803 patent specification and its parent priority patent applications arguably teaches that a WTRU establishes a connection with more than one cell, there is no description of a WTRU “receiving configuration information” for the more than one cell, as recited in claim 1 of the '803 patent.” Pet. at 12. This concession confirms that the “primary cell” and “non-primary cell” limitations are explicitly supported.

Thus, Petitioner is wrong about the priority support of the '426 Application. The '426 Application describes a wireless communication system where a WTRU 802 is in communication with a Node-B 804 that “controls a plurality of cells 808.” EX2012 at ¶ [0053]; Fig. 8A. The specification provides granular evidentiary support by designating these cells using the exact terminology found in the claims across multiple sections. The architecture of one Node-B controlling multiple cells, with one “designated as a primary cell 808a... while other cells are designated as non-primary cells 808b,” is expressly disclosed and depicted. EX2012 at ¶ [0053]; Fig. 8A.

Possession of this multi-cell designation is further reinforced in EX2012 at ¶ [0013], which specifies that “the primary Node-B controls EU operation during soft handover including EU scheduling and H-ARQ,” and in EX2012 at ¶ [0006], which describes softer handover where “a WTRU is in softer handover, the WTRU is connected to two or more cells belonging to the same Node-B.” This disclosure demonstrates possession of the claimed coordinated multi-cell architecture. EX2014 ¶ [126].

2. **The '426 Application Discloses “Configuration Information”**

Petitioner's argument that claim 1 lacks priority support for the “receive configuration information for the primary cell and the one or more non-primary cells”

limitation is also incorrect. Pet. at 11-12.

a. The Specification Discloses Configuration Information

The '426 Application discloses this limitation through two related disclosures: (1) the RNC “sends messages” to “inform” the WTRU of active set cells, and (2) the RNC uses “RRC radio bearer (RB) control procedures” to coordinate those cells. Both disclosures describe providing “configuration information” to the WTRU.

First, the '426 Application states: “[o]nce the RNC 1006 selects cells for the active set, the RNC 1006 sends messages to the Node-Bs 1004a, 1004b and the WTRU 1002 to inform the selected cells for the active set to support soft handover for EU.” EX2012 at ¶ [0057]; *see also* EX1001 at 9:66-10:2. A POSITA would understand that “inform[ing] the WTRU of the selected cells for the active set” constitutes providing configuration information for those cells. EX2014 ¶ [130]. This disclosure is not addressed by Petitioner. In a 3GPP system, “informing” a WTRU of its active set cells is not merely an abstract notification. To communicate with those cells, the WTRU must receive specific technical parameters — transport channel settings, physical channel settings, and timing information. EX2014 ¶ [131]. These parameters are the “configuration information” recited in the claims. Without them, the WTRU cannot operate on those cells. EX2014 ¶ [132].

Second, the '426 Application discloses the mechanism used to deliver this

information: “Under the current 3GPP standards, the RNC applies RRC radio bearer (RB) control procedures to coordinate active set cells with the WTRU.” EX2012 at ¶ [0011]; *see also* EX1001 at 2:42-45. A POSITA would understand that “RRC radio bearer (RB) control procedures” involve sending configuration information to the WTRU — that is the fundamental purpose of these procedures. EX2014 ¶ [134]. Indeed, the governing 3GPP standard (EX1006, TS 25.331) confirms that RRC procedures require delivery of “radio bearer, transport channel and physical channel information elements” to configure the WTRU. EX1006 at 69; EX2014 ¶ [134].

Petitioner itself relies on TS 25.331 to argue that the prior art discloses “configuration information.” Pet. at 42-43. Specifically, Petitioner points to the same RRC procedures, arguing that a UE must “initiate the radio bearer, transport channel and physical channel configuration in accordance with the received radio bearer, transport channel and physical channel information elements.” ID at 18; Pet. at 42-43. But the '426 Application references the same RRC procedures: “Under the current 3GPP standards, the RNC applies RRC radio bearer (RB) control procedures to coordinate active set cells with the WTRU.” EX2012 at ¶ [0011]. Petitioner cannot have it both ways. The RRC procedures of the '426 Application satisfy the “receiving configuration information” limitations.

b. Configuration Information Is Inherent in Establishing a Connection

Even without the disclosures set forth above, the '426 Application's disclosure of "establishing connections" with multiple cells inherently discloses receiving configuration information.

In a 3GPP UMTS system, "establishing a connection" is a technical term of art for the transition to an RRC_CONNECTED state. EX2014 ¶ [138]. Under EX1006 (TS 25.331), the governing standard at the time, it is physically impossible for a WTRU to establish a connection without receiving physical channel and radio bearer parameters. EX1006 at Section 10.2.40 (RRC Connection Setup); EX2014 ¶ [139]. This protocol requirement constitutes the "configuration information" recited in the claims. Since the RRC protocol is the standardized delivery mechanism for this information, the inventors were in full possession of that step. EX2014 ¶ [140].

The '426 Application discloses that the WTRU "establish[es] connections with more than one cell 808 which are controlled by the same Node-B 804." EX2012 at ¶¶ [0049], [0051], [0053]. A POSITA reading this disclosure would understand that the WTRU necessarily receives configuration information, because that is how connections are established under the 3GPP standards that the '426 Application expressly references. EX2014 ¶ [141]; *see also* EX2012 at ¶ [0011] (referencing "RRC radio bearer (RB) control procedures"). Such a disclosure, combined with disclosures such as that "[i]n order to implement this scheme [in Figs. 8A and 8B],

there is a timing offset between the transmission of the shared channel indicator from the primary cell 808a and the transmission of messages from non-primary cells 808b” (EX1001 at 9:10-14; EX2012 at ¶ [0053]), make clear that the inventors recognized that the WTRU would “receive configuration information for the primary cell and the one or more non-primary cells,” as set forth in claim 1.

It is implausible that connections could be established with any cells without configuration information being received by the WTRU. EX2014 ¶ [143]. From a technical standpoint, the transceiver cannot “lock” onto a cell signal and establish a connection unless it is first configured with the parameters necessary to decode that signal. EX2014 ¶ [144]. While Petitioner’s expert lists various parameters (such as measurement configuration, mobility control, and radio resource configuration), these details do not need to be recited by the inventors for the ’426 application to teach a message containing configuration information to a POSITA. EX2014 ¶ [144]. Petitioner’s expert’s opinion in this regard (EX1003 at ¶¶ 113-117) is a conclusory echo of the petition that misses the mark by focusing only on explicit disclosure and ignoring what the disclosure shows the inventors possessed. *See Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1352 (Fed. Cir. 2010) (*en banc*) (“the test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed

subject matter as of the filing date”).

The mere fact of sending configuration information to “establish connections” with cells is the sort of background information about the inherent functioning of base stations that comes with the “knowledge of what has come before” of a POSITA and is “unnecessary to spell out [in] every detail.” *LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005) (“[T]he patent specification is written for a person of skill in the art, and such a person comes to the patent with the knowledge of what has come before . . . Placed in that context, it is unnecessary to spell out every detail of the invention in the specification; only enough must be included to convince a person of skill in the art that the inventor possessed the invention and to enable such a person to make and use the invention without undue experimentation.”).

3. **The Claims are Not Limited to LTE “Carrier Aggregation”**

In its Reply, Petitioner argued that the '803 Patent “makes no mention of carrier aggregation.” Reply at 1. This argument misses the point and does not undermine priority support for the challenged claims. The challenged claims are entitled to their priority date even if it later-arising technologies like carrier aggregation implement the claimed invention. *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 886 (Fed. Cir. 2004); *Innogenetics, N.V. v. Abbott Labs.*,

512 F.3d 1363, 1371-72 (Fed. Cir. 2008). “Method and apparatus claims not written in means-plus-function format are not necessarily limited to that disclosed in the specification but rather are defined by the language of the claims themselves” and do not exclude “after-arising technologies” from their literal scope. *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1371-72 (Fed. Cir. 2008) (“Our case law allows for after-arising technology to be captured within the literal scope of valid claims that are drafted broadly enough”).

As established above, there is priority support for all elements of the Challenged Claims. Whether or not an after-arising technology incorporates this invention is legally irrelevant.

4. Petitioner's “Softer Handover” Argument Fails

In its Reply, Petitioner made a new argument: “the challenged claims of the '803 patent require ‘configuration information’ in the context of ‘softer handover’ for a single primary node.” Reply at 2. This is not a claim construction that was advanced in the Petition. The actual claim language is fully supported, as set forth herein.

It is undisputed that claims 1 and 7 set forth that “a primary cell is associated with a wireless network node and one or more non-primary cells are associated with the wireless network node.” As the '426 Application sets forth, the WTRU will

“establish[] connections with more than one cell 808 which are controlled by the same Node-B 804” (EX1001 at 8:42-52), and that “[o]ne of the cells 808 may be designated as a primary cell 808a, while other cells are designated as non-primary cells 808b.” *id.* at 9:4-6. Petitioner’s Preliminary Reply largely ignored this support.

As shown in Figure 8B, and unaddressed by Petitioner, the WTRU will “establish connections to at least two cells that belong to the same Node-B.” EX2012 at Fig. 8B. In a 3GPP scheme, and in the schemes discussed by the ’426 Application and its priority documents, connection is established by receiving configuration information. This will be true for every embodiment disclosed in the ’426 Application, including those concerning primary and non-primary cells associated with a wireless network node. “Under the current 3GPP standards, the RNC applies RRC radio bearer (RB) control procedures to coordinate active set cells with the WTRU.” EX2012 at ¶ [0011].

The mere fact of sending configuration information to “establish connections” with cells is the sort of background information about the inherent functioning of base stations that comes with the “knowledge of what has come before” of a POSITA and is “unnecessary to spell out [in] every detail.” *LizardTech*, 424 F.3d at 1345. It is implausible that connections could be established with any cells without configuration information being received by the WTRU and Petitioner has cited no

way in which this could occur. EX2014 ¶ [165].

5. Petitioner Waived Any Priority Challenge to Claims 7, 8, 11, and 12

Petitioner argues in its Preliminary Reply that its written description challenge applies to claims 7, 8, 11, and 12. *See* Preliminary Reply (Paper 12) at 4-5. But this is not what the Petition sets forth. Aside from a blanket statement about “[t]he challenged ’803 Patent claims,” Petitioner’s arguments regarding priority claims did not address the claim language of any claim except claim 1. *See* Pet. at 9-12 (addressing only claim 1).

Petitioner’s Preliminary Reply subsequently points to the similarity of language between claim 1 and claims 7, 8, 11, and 12, but the claim language is not identical and Petitioner has not explained the difference. Petitioner also points to its argument about “the claim requirement of ‘receiving of configuration information’” but this precise language is also not in claims 7, 8, 11, and 12.

An *inter partes* review is limited to arguments advanced in the petition. *See Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1336 (Fed. Cir. 2020) (“it is the petition... that defines the metes and bounds of an inter partes review”). Because Petitioner did not address priority date of claims 7, 8, 11, and 12 in the petition, it cannot do so now.

B. Ground 2: Petitioner Fails to Establish That Claims 1, 2, 5-8, 11, and 12 Would Have Been Obvious Based on Ericsson in View of TS 25.331

Petitioner has not shown by a preponderance of the evidence that claims 1, 2, 5-8, 11, and 12 are invalid based on Ground 2. Ericsson concerns a different concept than the invention claimed by the challenged claims of the '803 Patent. Ericsson teaches a hard handover from a source cell to a target cell, which is a break-before-make transition where the WTRU is never connected to both cells simultaneously. EX2014 ¶ [175]. This is fundamentally different from the '803 Patent's coordinated architecture where a WTRU is simultaneously connected to a primary cell and one or more non-primary cells. This deficiency means Ericsson fails to disclose or render obvious multiple claim limitations.

1. Ericsson's Hard Handover Fails to Disclose the Claimed Simultaneous Multi-Cell Architecture

Claims 1 and 7 require that “a primary cell is associated with a wireless network node and one or more non-primary cells are associated with the wireless network node.” EX1001 at claims 1, 7. As discussed in Section III.B, *supra*, the plain and ordinary meaning of “primary cell” and “non-primary cell” is that these are cells to which the WTRU is simultaneously connected. The terms describe a coordinated set of cells with operational roles, not temporal labels for cells in a sequential transition. EX2014 ¶ [177].

Ericsson does not disclose this limitation. Ericsson concerns a handover process whereby “[t]he serving HS-DSCH cell is changed without change of the active set.” EX1005 at 1. But the WTRU in Ericsson is never connected to more than one cell at the same time. Instead, Ericsson teaches a “transition from source to target HS-DSCH cell [which] is performed synchronised, i.e. at a given activation time.” EX1005 at 4. In other words, there is a transition from a source cell to a target cell, but never a simultaneous connection to both. EX2014 ¶ [178].

Petitioner's reliance on Ericsson ignores this requirement. Petitioner maps “primary” to “source” and “non-primary” to “target,” but this mischaracterizes the claims. Pet. 40; EX2014 ¶ [61]. In Ericsson, “source” and “target” are temporal labels—as Dr. Kakaes confirmed, the UE (i.e., the WTRU) receives from the source cell “*before* the activation time” and from the target cell “*after* the activation time.” EX2013 at 35:7-36:2. But the claims do not describe a transition from one cell to another. They describe coordinated operation *across* multiple cells, where the primary cell provides an indication for receiving data from a non-primary cell. This coordination requires the WTRU to be connected to both cells simultaneously. EX2014 ¶ [62]. Indeed, Dr. Kakaes acknowledged that in the Ericsson reference, there is no moment where the UE receives HS-DSCH transmissions from both cells simultaneously. EX2013 at 37:2-7. This admission reinforces the fact that the

“source” and “target” cells in Ericsson are merely temporal labels and do not function as the coordinated cells required by the claims.

Ericsson describes a hard handover, which is a break-before-make transition where resources are released in the source cell before being assigned in the target cell. EX1005 at 1-3; EX2014 ¶ [179]. In a hard handover, the WTRU terminates its connection with the source cell before establishing a connection with the target cell. EX2014 ¶ [179]. This is fundamentally different from the '803 Patent's coordinated architecture where the WTRU maintains simultaneous connections to multiple cells, with one cell designated as a primary cell that sends messages carrying shared channel indicators for non-primary cells. EX1001 at 9:4-15; EX2014 ¶ [179]. Petitioner's own expert, Dr. Kakaes confirmed this technical deficiency by admitting that Ericsson does not disclose a simultaneous connection to both cells. EX2013 at 36:3-8.

Because Ericsson discloses a hard handover, not simultaneous connection to a primary cell and one or more non-primary cells, Petitioner has failed to establish that Ericsson discloses or renders obvious the claim limitation requiring “a primary cell is associated with a wireless network node and one or more non-primary cells are associated with the wireless network node.” EX2014 ¶ [180]. As noted above, Petitioner does not rely on TS 25.331 to supply this limitation, and as discussed in

Section V.B.2, *infra*, Petitioner has not established any motivation for a POSITA to modify Ericsson's hard handover architecture to include simultaneous multi-cell connection.

a. Ericsson Fails to Disclose the Claimed Messaging Sequence

Ericsson's hard handover architecture also means it fails to disclose the messaging limitation of claims 1 and 7, which require "receiv[ing] a message on the primary cell, the received message including an indication of at least one of the one or more non-primary cells from which the WTRU is to receive a downlink shared channel transmission." EX1001 at claims 1, 7.

Ericsson's Physical Channel Reconfiguration message does not satisfy this limitation. That message is a command to terminate the connection with the source cell and move to the target cell. EX2014 ¶ [181]. It is a relocation instruction for a hard handover, not a scheduling indication for coordinated multi-cell reception. EX1005 at 2-3; EX2014 ¶ [181].

A POSITA would recognize that a message telling a WTRU to leave Cell A and move to Cell B is not the same as a message on Cell A indicating that the WTRU should receive data on Cell B's shared channel while remaining connected to Cell A. EX2014 ¶ [182]. In the '803 Patent, the WTRU maintains simultaneous connections to multiple cells, with the primary cell coordinating reception from non-

primary cells by sending messages carrying shared channel indicators. EX1001 at 8:42-52, 9:4-15; EX2014 ¶ [182]. In Ericsson's hard handover, once the switch occurs, the source cell ceases to exist for the WTRU. EX1005 at 3; EX2014 ¶ [183].

Because Ericsson's hard handover does not disclose a message on the primary cell that includes an indication of a non-primary cell from which the WTRU is to receive a transmission, it fails to teach or render obvious this claim limitation.

b. Ericsson Fails to Disclose the Dependent Claim Limitations

Ericsson's hard handover architecture also means it cannot disclose various limitations of the dependent claims.

Claims 2 and 8 require "a time delay between the downlink shared channel transmission and the receipt of the message by the WTRU." EX1001 at claims 2, 8. Petitioner contends that the "activation time" in Ericsson satisfies this limitation. Pet. at 48. But Ericsson's "activation time," as pointed to by Petitioner, is the period during which the WTRU is transitioning between cells and is connected to neither. This is the "break" in a break-before-make hard handover. EX1005 at 4; EX2014 ¶ [184]. The claimed "time delay" presupposes simultaneous connection to both cells, with a temporal offset between receiving a message on the primary cell and receiving a transmission from a non-primary cell. EX2014 ¶ [185]. Ericsson's hard handover architecture cannot satisfy this limitation because there is no simultaneous

connection. EX2014 ¶ [186].

Claims 5 and 11 require “receiv[ing] a grant for an uplink transmission from the primary cell,” and claims 6 and 12 require “process[ing] an acknowledgement/negative acknowledgement to the uplink transmission received only from the primary cell.” EX1001 at claims 5, 6, 11, 12. Petitioner argues these features are “well known.” Pet. at 53. But Petitioner fails to explain why a POSITA would implement primary-only feedback in Ericsson’s hard handover architecture. EX2014 ¶ [187]. In a hard handover, the WTRU is only connected to one cell at a time, so there is no need to designate one cell as the exclusive source of grants or feedback. EX2014 ¶ [188]. The “primary-only” limitation makes sense only in the context of simultaneous multi-cell connection, an architecture Ericsson’s hard handover does not disclose. EX2014 ¶ [189].

2. Petitioner Fails to Establish a Motivation to Combine Ericsson and TS 25.331 in the Manner Suggested.

Even if Ericsson disclosed the claimed limitations (it does not), Petitioner has failed to establish that a POSITA would have been motivated to combine Ericsson with TS 25.331 to arrive at the claimed invention.

The '803 Patent is directed to wireless communication systems, and specifically to methods and apparatus for enhanced uplink (EU) operation during a soft handover. EX1001 at 1:22-25; EX2014 ¶ [201]. The '803 Patent addresses a

specific problem: how to efficiently manage simultaneous connections between a WTRU and multiple cells controlled by the same Node-B, where one cell (the “primary cell”) sends messages carrying shared channel indicators to coordinate reception from other cells (the “non-primary cells”). EX1001 at 8:42-52, 9:4-15; EX2014 ¶ [201].

Ericsson is in the field of wireless communications, but it is directed to a fundamentally different aspect of that field. Ericsson concerns changing the serving HS-DSCH cell during a hard handover “without change of the active set.” EX1005 at 1. Ericsson describes a sequential transition where the UE is never connected to both the source and target cells simultaneously—resources are released in the source cell before being established in the target cell. A POSITA would not look to Ericsson when seeking to solve the problem of coordinating simultaneous multi-cell connections because Ericsson’s hard handover architecture is fundamentally incompatible with simultaneous connection. EX2014 ¶ [191]. Furthermore, Ericsson is not solving the same problem as the ’803 Patent. Ericsson is concerned with minimizing disruption during a sequential transition from one cell to another. EX1005 at 1, 3-4. The ’803 Patent is concerned with coordinating simultaneous connections to multiple cells. These are different problems requiring different solutions. EX2014 ¶ [191].

TS 25.331 is the 3GPP specification for Radio Resource Control (RRC) procedures. EX1006 at 40. While TS 25.331 is in the field of wireless communications, it is a general-purpose protocol specification. It does not address the specific architecture of simultaneous connection to primary and non-primary cells. EX2014 ¶ [192]. TS 25.331 is not solving the same problem as the '803 Patent. TS 25.331 describes procedures for “Establishment, reconfiguration and release of Radio Bearers.” EX1006 at 35. It does not address the problem of coordinating simultaneous connections to primary and non-primary cells controlled by the same Node-B. EX2014 ¶ [192]. Because TS 25.331 is a general protocol specification and Ericsson addresses sequential cell transitions, neither reference—alone or in combination—addresses the problem solved by the '803 Patent. EX2014 ¶ 192.

A POSITA would not be motivated to combine Ericsson and TS 25.331 to arrive at the claimed invention because neither reference is analogous art directed to the problem solved by the '803 Patent, and neither reference is solving the pertinent problem of coordinating simultaneous connections to primary and non-primary cells. EX2014 ¶ [193]. Petitioner asserts that a POSITA would have combined Ericsson and TS 25.331 to “improve throughput.” Pet. at 35-36. But this generic assertion is insufficient. A POSITA seeking to improve throughput through simultaneous multi-cell operation would not start with a hard handover reference like Ericsson, which is

designed for sequential cell transitions. EX2014 ¶ [193].

Even if a POSITA were motivated to combine Ericsson and TS 25.331, the combination would not yield the claimed invention. Ericsson's hard handover architecture cannot be modified to include simultaneous connection to primary and non-primary cells without fundamentally changing the nature of Ericsson's system. EX2014 ¶ [194]. Such a modification would not be an obvious combination of the references; it would be a redesign of Ericsson's architecture using the '803 Patent as a roadmap. This is impermissible hindsight. EX2014 ¶ [194]. *See In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971).

C. Ground 3: Sebire Does Not Cure the Deficiencies of the Ericsson Combination

Petitioner's Ground 3 relies on Ericsson, TS 25.331, and Sebire to attempt to satisfy the specific uplink and feedback limitations of claims 5, 6, 11, and 12. Pet. at 56-62. Ground 3 fails for three independent reasons.

First, Petitioner does not rely on Sebire to cure any deficiencies of Ericsson with respect to the independent claims. Because the combination of Ericsson and TS 25.331 fails to disclose the limitations of claims 1 and 7 for the reasons explained in Section V.B, *supra*, Ground 3 must also fail as to the dependent claims.

Second, Sebire does not disclose the "primary-only" feedback limitation required by claims 6 and 12. As discussed in Section V.C.1, *infra*, Sebire is directed

to 2G GPRS (General Packet Radio Service) technology, which operates on an entirely different architecture than the 3G system of the '803 Patent. In Sebire's 2G system, feedback is provided by the cell that is currently serving the Temporary Block Flow (TBF), not by a "primary cell" that serves as the exclusive feedback anchor while the WTRU remains connected to multiple cells. EX2014 ¶ [198].

Third, Petitioner has failed to establish any motivation for a POSITA to combine Ericsson's 3G hard handover architecture with Sebire's 2G GPRS TBF mechanism. As discussed in Section V.C.2, *infra*, these references are directed to different technological generations solving different problems, and a POSITA would have no reason to combine them.

1. Sebire Does Not Disclose the Primary-Only Feedback Limitation

Claims 6 and 12 require "process[ing] an acknowledgement/negative acknowledgement to the uplink transmission received only from the primary cell." EX1001 at claims 6, 12. Sebire does not disclose this limitation.

Sebire is directed to handover in a 2G GPRS system. EX1007 at 2. In Sebire, the handover involves a source cell providing a UE with TBF link information for a target cell, after which the operation proceeds in that target cell. EX1007 at 3-5. This is a break-before-make transition, similar to Ericsson's hard handover, where the UE is connected to only one cell at a time. EX2014 ¶ [197].

Sebire does disclose the concept of acknowledged mode operation, where transmitted data blocks are acknowledged or negatively acknowledged. EX1007 at 19. But Sebire does not disclose that this feedback is received “only from the primary cell” while the WTRU remains connected to multiple cells. In Sebire, feedback is provided by the cell that is currently serving the TBF, because the UE is only connected to one cell at a time. EX2014 ¶ [198].

Petitioner's own expert, Dr. Kakaes, admitted that TS 25.331 “does not explicitly disclose that [ACK/NACK] is received only for the primary cell.” EX2013 at 115:8-12. Dr. Kakaes further confirmed that Sebire “does not address the soft buffer corruption” problem that motivates the primary-only feedback limitation. *Id.* at 93:20-94:3. This admission removes the technical motivation to combine Ericsson with Sebire, as the prior art neither faces the problem that the limitation solves nor teaches the solution.

The “primary-only” feedback limitation makes sense only in the context of simultaneous multi-cell connection, where multiple cells could potentially provide conflicting feedback. In Sebire's 2G GPRS system, there is no simultaneous multi-cell connection and therefore no need to restrict feedback to a single primary cell. Accordingly, a POSITA working on Ericsson's 3G hard handover architecture would have no reason to look to Sebire's 2G GPRS system for guidance on

implementing primary-only feedback, because Sebire neither faces the problem that the limitation solves nor teaches the solution. EX2014 ¶ [200]. Because Sebire does not disclose the “primary-only” limitation, and Petitioner has not identified any other reference that does, Ground 3 fails as to claims 6 and 12. Furthermore, because Ericsson and TS 25.331 are directed to sequential transitions where the WTRU communicates with only one cell at a time, they fail to teach or suggest the coordinated uplink grant and feedback mechanisms of Claims 5 and 11, which require the WTRU to process control signaling from a persistent primary cell while maintaining associations with non-primary cells.

2. Petitioner Fails to Establish a Motivation to Combine Ericsson, TS 25.331, and Sebire

Even if Sebire disclosed the claimed limitations (it does not), Petitioner has failed to establish that a POSITA would have been motivated to combine Ericsson and TS 25.331 with Sebire to arrive at the claimed invention.

The '803 Patent is directed to wireless communication systems, and specifically to methods and apparatus for enhanced uplink (EU) operation during a soft handover. EX1001 at 1:22-25; EX2014 ¶ [201]. The '803 Patent addresses a specific problem: how to efficiently manage simultaneous connections between a WTRU and multiple cells controlled by the same Node-B, including restricting feedback to a primary cell to avoid conflicts. EX1001 at 8:42-52, 9:4-15; EX2014 ¶

[201].

Sebire is directed to a fundamentally different technology. Sebire concerns handover in a 2G GPRS system, which operates on entirely different protocol layers and physical principles than the 3G WCDMA/HSPA system of the '803 Patent. EX1007 at 2; EX2014 ¶ [202]. Sebire teaches a Temporary Block Flow (TBF) mechanism for managing packet data in a 2G system. EX1007 at 3-4. A POSITA would not look to a 2G GPRS reference like Sebire when seeking to solve problems in a 3G Enhanced Uplink system, because the mechanics of 2G TBF resource allocation are not interchangeable with the high-speed, multi-cell Hybrid Automatic Repeat Request (HARQ) processes used in 3G Enhanced Uplink. 2G GPRS does not use HARQ, but standard Automatic Repeat Request. EX2014 ¶ [202].

Petitioner's own expert, Dr. Kakaes, could not identify any 3GPP document from 2004 or earlier that suggests combining 2G GPRS with 3G systems. When asked "Is there a 3GPP document from 2004 or earlier that suggests combining 2G to 3G?," Dr. Kakaes testified: "I would have to look for that and see if such a document exists. I don't know the answer to that question." EX2013 at 108:8-10.

A POSITA would not be motivated to combine Ericsson, TS 25.331, and Sebire to arrive at the claimed invention because Sebire is not analogous art directed to the problem solved by the '803 Patent. Sebire is solving a different problem

(reducing transmission gaps during 2G GPRS handover) in a different technological generation. EX2014 ¶ [204]. By 2004, 3GPP had already established sophisticated 3G feedback mechanisms. EX1006 at §§ 8.5, 8.6. Moving backward to adapt 2G GPRS TBF mechanics would represent a technical regression. EX2014 ¶ [204].

Even if a POSITA were motivated to combine Ericsson, TS 25.331, and Sebire, the combination would not yield the claimed invention. Neither Ericsson nor Sebire discloses simultaneous connection to primary and non-primary cells, and adding Sebire's 2G TBF mechanism to Ericsson's 3G hard handover would not create the coordinated multi-cell architecture required by the claims. EX2014 ¶ [205]. The only roadmap for such a modification is the '803 Patent itself. This is impermissible hindsight. *See In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971); EX2014 ¶ [205].

VI. CONCLUSION

For at least the foregoing reasons, the Board should confirm the patentability of claims 1, 2, 5-8, 11, and 12 of the '803 Patent.

Case IPR2025-00756
Patent No. 10,764,803
Patent Owner's Response

Dated: March 10, 2026

Respectfully submitted,

/James A. Fussell Reg No 54885 /
Amanda S. Bonner
Registration No. 65,224
DongWook Kim
Registration No. 82,591
Mayer Brown LLP
71 S. Wacker Drive
Chicago, IL 60606
Telephone: 312-782-0600
Facsimile: 312-706-8157
asbonner@mayerbrown.com
dkim@mayerbrown.com

James A. Fussell, III
Registration No. 54,885
Clark S. Bakewell
Registration No. 71,615
Mayer Brown LLP
1999 K Street NW
Washington, D.C. 20006
Telephone: 202-263-3000
Facsimile: 202-263-3300
jfussell@mayerbrown.com
cbakewell@mayerbrown.com

Attorneys for Pantech Corporation

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CERTIFICATE OF SERVICE

I hereby certify that on this 10th day of March, 2026, a copy of the attached **PATENT OWNER'S RESPONSE** was served by electronic mail to the attorneys of record, at the following addresses:

Wesley O. Mueller
Christopher J. Gass
Leydig, Voit & Mayer, Ltd.
Two Prudential Plaza, Suite 4900
180 North Stetson Avenue
Chicago, Illinois 60601-6745
Tel: (312) 616-5600
Fax: (312) 616-5700
wmueller@leydig.com
cgass@leydig.com

OneplusLitigation@leydig.com

Respectfully submitted,

Date: March 10, 2026

By: /James A. Fussell Reg No 54885/
James A. Fussell (Reg. No. 54,885)

Case IPR2025-00756
Patent No. 10,764,803
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CERTIFICATION PURSUANT TO 37 C.F.R. § 42.24(d)

Pursuant 37 CFR 42.24(d), the undersigned certifies that this Preliminary Response complies with the type-volume limitation of 37 CFR §42.24(a). The word count application of the word processing program used to prepare this Preliminary Response indicates that the Preliminary Response contains 10,685 words, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

Respectfully submitted,

Date: March 10, 2026

By: /James A. Fussell Reg No 54885/
James A. Fussell (Reg. No. 54,885)