

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS C-O., LTD.,  
Petitioner,

v.

HUAWEI TECHNOLOGIES CO., LTD.  
Patent Owner.

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Case IPR2017-01471  
Patent 8,412,197 B2

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Before TREVOR M. JEFFERSON, MICHELLE N. WORMMEESTER, and  
JOHN F. HORVATH, *Administrative Patent Judges*.

HORVATH, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*35 U.S.C. § 318(a) and 37 C.F.R. § 42.73*

## I. INTRODUCTION

### A. Background

Samsung Electronics Co., Ltd.<sup>1</sup> (“Petitioner”) filed a Petition (Paper 2, “Pet.”) to institute *inter partes* review of claims 1, 2, 5–9, and 13–15 (“the challenged claims”) of U.S. Patent No. 8,412,197 B2 (Ex. 1001, “the ’197 patent”). Huawei Technologies Co., Ltd. (“Patent Owner”) filed a Preliminary Response (Paper 10, “Prelim. Resp.”). Upon consideration of the Petition and Preliminary Response, we instituted review of claims 1, 2, 5, 6, and 13 of the ’197 patent, but declined to institute review of claims 7–9, 14, and 15. Paper 12, 27 (“Dec. Inst.”)

Patent Owner filed a Response to the Petition, addressing only instituted claims 1, 2, 5, 6, and 13. Paper 24 (“PO Resp.”). Subsequent to Patent Owner’s Response, the Supreme Court issued its decision in *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348 (2018), holding that *inter partes* reviews may not be instituted on fewer than all claims challenged in a petition. We, therefore, modified our Institution Decision to include review of previously non-instituted claims 7–9, 14, and 15. *See* Paper 25, 3. Patent Owner filed a Supplemental Response limited to addressing these additional claims. Paper 30 (“PO Supp. Resp.”). Petitioner filed a Reply to the Response and Supplemental Response. Paper 33 (“Reply”). Patent Owner filed a Sur-Reply to Petitioner’s Reply. Paper 41 (“PO Sur-Reply”). We held an oral hearing on September 27, 2018, and the hearing transcript is included in the record. *See* Paper 48 (“Tr.”).

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<sup>1</sup> Samsung identifies Samsung Electronics America, Inc. and Samsung Research America as real parties-in-interest. Pet. 1.

We have jurisdiction under 35 U.S.C. § 6(b). This is a Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons set forth below, we find Petitioner has shown by a preponderance of the evidence that claims 1, 2, 5, 6, and 13 of the '197 patent are unpatentable, but has failed to show by a preponderance of the evidence that claims 7–9, 14, and 15 are unpatentable.

*B. Related Matters*

Petitioner identifies the following as a matter that could affect, or be affected by, a decision in this proceeding: *Huawei Techs. Co., Ltd. v. Samsung Elec. Co., Ltd.*, Case No. 3:16-cv-02787 (N.D. Cal.). Pet. 2.

Patent Owner identifies the same matter, as well as related U.S. Patent Nos. 8,041,355; 8,155,111; 8,639,246 (“the ’246 patent”); 8,996,003 (“the ’003 patent”); and 9,247,493; and pending U.S. Patent App. No. 15/005,852. Paper 5, 1. Patent Owner indicates the ’246 patent and the ’003 patent are also involved in the above-referenced District Court proceeding. *Id.* Patent Owner further identifies the following as matters that could affect, or be affected by, a decision in this proceeding: *Samsung Elec. Co., Ltd. v. Huawei Techs. Co., Ltd.*, Case IPR2017-01474 (PTAB) (challenging claims in the related ’246 patent) and *Samsung Elec. Co., Ltd. v. Huawei Techs. Co., Ltd.*, Case IPR2017-01475 (PTAB) (challenging claims in the related ’003 patent).<sup>2</sup>

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<sup>2</sup> Patent Owner mistakenly identifies the pending IPR’s challenging the ’246 and ’003 patents as IPR2015-01474 and IPR2015-01475. The two cases were filed in 2017, and are properly identified as IPR2017-01474 and IPR2017-01475.

*C. Evidence Relied Upon*<sup>3</sup>

Reference	Date	Exhibit
<i>Inter-frequency/RAT idle mode mobility control</i> , 3rd Generation Partnership Project, 3GPP TSG-RAN WG2 #60 (“R2-075161”).	Oct. 31, 2007	1005
Eerolainen   US 2008/0176565 A1	July 24, 2008	1006
<i>Reselection scenarios for multi-RAT terminals in Rel-8</i> , 3rd Generation Partnership Project, 3GPP TSG-RAN WG2 #60bis (“R2-080338”).	Jan. 7, 2008	1007

*D. Instituted Grounds of Unpatentability*

References	Basis	Claims Challenged
R2-075161 and R2-080338	§ 103(a)	1, 2, 5–9, and 13–15
R2-075161, R2-080338, and Eerolainen	§ 103(a)	7–9, 14, and 15

II. ANALYSIS

*A. The '197 Patent*

The '197 patent is directed toward a method of cell reselection in mobile communications systems, including Long Term Evolution (LTE) systems and non-LTE systems. Ex. 1001, 1:16–41, Abstract. When a user's terminal or User Equipment (UE) is “camped” on a cell in one system (e.g., LTE), it can move to another cell within the same system, or to another cell in a different system (e.g., non-LTE). *Id.* at 1:35–41. To select which cell it

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<sup>3</sup> Petitioner also relies upon the Declarations of Tim Arthur Williams, Ph.D. (Exs. 1003, 1024), and Raziq Yaqub, Ph.D. (Ex. 1012). Patent Owner relies on the Declarations of Dr. Robert Akl, D.Sc. (Exs. 2005, 2015).

should move to, the UE uses a dedicated priority list. *Id.* at 1:42–45, 1:56–58. When the UE is initially camped on a non-LTE cell, establishing the dedicated priority list can result in excessive signaling with, or require expensive upgrades to, core network nodes in the non-LTE system. *Id.* at 1:65–2:1. Accordingly, the '197 patent proposes the cell reselection method depicted in Figure 1, which is reproduced below.

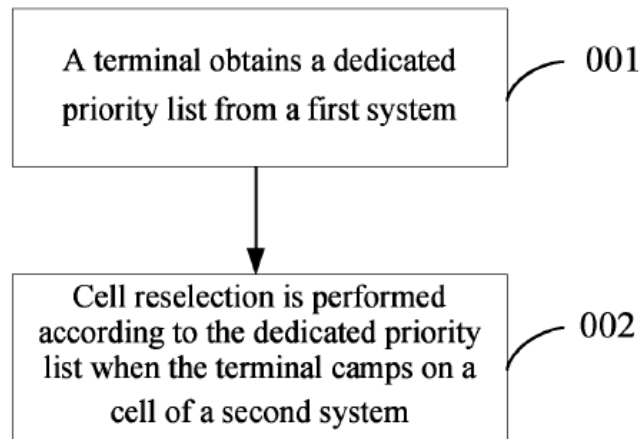


FIG.1

Figure 1 is a flow chart depicting a method for cell reselection when an UE moves from a cell in a first mobile system (e.g., LTE) to a cell in a second mobile system (e.g., non-LTE). Ex. 1001, 2:35–36, Abstract. At step 1, the UE obtains a dedicated priority list from the first or LTE system. Ex. 1001, 2:51–52, 2:60–62. The dedicated priority list can be provided to the UE via dedicated signaling. *Id.* at 3:66–4:2, 6:6–9, 7:8–10, 8:20–22, 9:31–33. The priority levels in the dedicated priority list can be based on frequencies, Radio Access Technologies (RATs), or frequency bands in the cell transmitting the priority list as well as its adjacent cells, including the

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