

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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LENOVO HOLDING COMPANY, INC., LENOVO  
(UNITED STATES) INC., and MOTOROLA MOBILITY LLC,  
Petitioner,

v.

INTERDIGITAL TECHNOLOGY CORPORATION,  
Patent Owner.

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IPR2020-01505  
Patent 8,797,873 B2

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Before JUSTIN T. ARBES, CHRISTOPHER L. OGDEN, and  
JOHN R. KENNY, *Administrative Patent Judges*.

KENNY, *Administrative Patent Judge*.

DECISION  
Final Written Decision  
Determining No Challenged Claims Unpatentable  
*35 U.S.C. § 318(a)*

## I. INTRODUCTION

Lenovo Holding Company, Inc., Lenovo (United States) Inc., and Motorola Mobility LLC (“Petitioner”) filed a Petition to institute an *inter partes* review (“IPR”) of claims 1–10 (the “challenged claims”) of U.S. Patent No. 8,797,873 B2 (Ex. 1001, the “’873 patent,” “challenged patent”) pursuant to 35 U.S.C. § 311 *et seq.* Paper 1 (“Pet.”). InterDigital Technology Corporation (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”).

On April 15, 2021, we instituted an *inter partes* review of all challenged claims. Paper 11 (“Institution Decision” or “Inst. Dec.”). Patent Owner filed a Patent Owner Response (Paper 16, “PO Resp.”). Petitioner filed a Reply (Paper 19, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 20, “PO Sur-reply”). A transcript of an oral hearing held on January 25, 2022 (Paper 30, “Tr.”) has been entered into the record.

We have jurisdiction under 35 U.S.C. § 6. For the reasons discussed below, we determine that Petitioner has not shown, by a preponderance of the evidence, that claims 1–10 are unpatentable.

### *A. Related Matters*

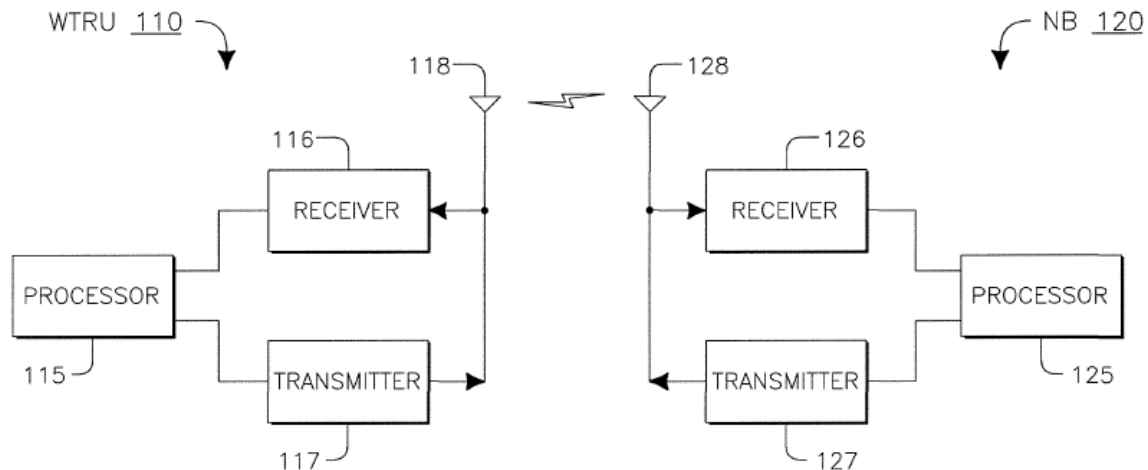
The parties identify the following related district court litigation: *InterDigital Technology Corp. v. Lenovo Holding Co.*, Case No. 1-19-cv-01590 (D. Del.) (“Related Litigation”). Pet. 3; Paper 5, 2.

Patent Owner identifies IPR2020-01236, IPR2020-01237, IPR2020-01413, IPR2020-01481, IPR2020-01494, IPR2020-01514, and IPR2020-01515 as all challenging patents asserted in the related district court litigation. Paper 5, 2–3.

*B. Challenged Patent*

The '873 patent relates to “a method and apparatus for preventing transmission blocking in an HSUPA [high speed uplink packet access] wireless communication system.” Ex. 1001, 1:18–22.

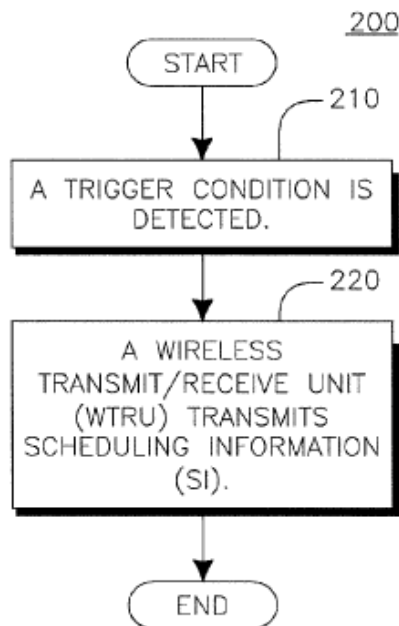
Figure 1 of the '873 patent is shown below:



**FIG.1**

Figure 1 above is a functional block diagram of a WTRU (wireless transmit/receive unit) 110 and NB (Node-B) 120. Ex. 1001, 3:44–45. In the '873 patent, the term “WTRU” encompasses “user equipment (UE), a mobile station, a fixed or mobile subscriber unit, a pager, a cellular telephone, a personal digital assistant (PDA), a computer, or any other type of user device capable of operating in a wireless environment.” *Id.* at 3:34–39. Further, in the '873 patent, the term “base station” encompasses a Node-B. *Id.* at 3:39–41. “WTRU 110 is in communication with the NB 120 and both are configured to perform a method for preventing transmission blocking in an HSUPA wireless communication system.” *Id.* at 3:46–49.

Figure 2 of the '873 patent is shown below:



**FIG. 2**

Figure 2 above “is a flow diagram of a method for preventing transmission blocking in an HSUPA wireless communication system.” Ex. 1001, 3:19–21. The '873 patent discloses that, in step 210 of this flow diagram, “a trigger condition for transmitting an SI [scheduling information] is detected.” *Id.* at 4:8–9. The '873 patent provides the following example of a trigger condition: “the transmission of the SI alone may occur when the transmission of any, or in a specifically defined, MAC-d [medium access control-d] flow is stopped because the current non-zero grant is smaller than the minimum required to transmit the next MAC SDU [service data unit], or RLC [radio link control] PDU [protocol data unit] of the particular MAC-d flow.” *Id.* at 4:9–14. The '873 patent further describes that “[t]he trigger condition, in this case, may occur when it is not possible to transmit a single PDU of a given MAC-d flow.” *Id.* at 4:14–16.

*C. Challenged Claims*

Petitioner challenges claims 1–10. Pet. 1. Claims 1 and 6 are independent. Ex. 1001, 7:36–8:37. Claim 1 reads:

1. A method performed by a Third Generation Partnership Project (3GPP) wireless transmit/receive unit (WTRU), the method comprising:

triggering transmission of scheduling information (SI), from the WTRU to a Node-B, in response to the WTRU having a non-zero grant smaller than needed preventing the WTRU from sending a medium access control protocol data unit (PDU) of any of a plurality of scheduled medium access control-d (MAC-d) flows.

*Id.* at 7:36–8:6. Claim 6 reads:

6. A Third Generation Partnership Project (3GPP) wireless transmit/receive unit (WTRU) comprising:

circuitry configured to trigger transmission of scheduling information (SI), from the WTRU to a Node-B, in response to the WTRU having a non-zero grant smaller than needed preventing the WTRU of transmission of a medium access control protocol data unit (PDU) of any of a plurality of scheduled medium access control-d (MAC-d) flows.

*Id.* at 8:17–26.

*D. Asserted Challenges to Patentability and Prior Art*

Petitioner challenges claims 1–10 based on the grounds in the table below:

Ground	Claims Challenged	35 U.S.C. §	References
1	1, 5, 6, and 10	102	Zhang <sup>1</sup>
2	1, 5, 6, and 10	103	Zhang

<sup>1</sup> US 2005/0105553 A1 (Ex. 1005).

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