

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC., SAMSUNG ELECTRONICS CO., LTD., and  
SAMSUNG ELECTRONICS AMERICA, INC.,  
Petitioner,

v.

SMART MOBILE TECHNOLOGIES LLC,  
Patent Owner.

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IPR2022-00807  
Patent 9,756,168 B1

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Before KEVIN F. TURNER, HYUN J. JUNG, and PAUL J. KORNICZKY,  
*Administrative Patent Judges.*

JUNG, *Administrative Patent Judge.*

JUDGMENT  
Final Written Decision  
Determining All Challenged Claims Unpatentable  
*35 U.S.C. § 318(a)*

## I. INTRODUCTION

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Apple Inc., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. (collectively, “Petitioner”) have shown by a preponderance of the evidence that claims 2–5, 19–23, 25, 28, 29, and 34 of U.S. Patent No. 9,756,168 B1 (Ex. 1001, “the ’168 patent”) are unpatentable.

### A. *Background and Summary*

Petitioner filed a Petition (Paper 3, “Pet.”) requesting institution of an *inter partes* review of claims 2–5, 19–23, 25, 28, 29, and 34 of the ’168 patent. Smart Mobile Technologies LLC (“Patent Owner”) filed a Preliminary Response (Paper 7). Pursuant to 35 U.S.C. § 314, we instituted an *inter partes* review of claims 2–5, 19–23, 25, 28, 29, and 34 of the ’168 patent on all presented challenges. Paper 9 (“Inst. Dec.”), 2, 43.

After institution, Patent Owner filed a Response (Paper 23, “PO Resp.”), to which Petitioner filed a Reply (Paper 28, “Pet. Reply”), and Patent Owner thereafter filed a Sur-reply (Paper 31, “PO Sur-reply”). An oral hearing in this proceeding was held on July 27, 2023; a transcript of the hearing is included in the record. Paper 37.

### B. *Real Parties in Interest*

Petitioner identifies Apple Inc., Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. as real parties in interest. Pet. 86. Patent Owner only identifies itself as a real party in interest. Paper 5, 1.

### C. *Related Matters*

The parties identify *Smart Mobile Technologies LLC v. Samsung Electronics Co., Ltd.*, 6-21-cv-00701 (W.D. Tex.) and *Smart Mobile*

*Technologies LLC v. Apple Inc.*, 6-21-cv-00603 (W.D. Tex.) as related matters. Pet. 86; Paper 5, 1.

*D. The '168 Patent (Ex. 1001)*

The '168 patent issued on September 5, 2017 from an application filed on October 13, 2004, which is a division of an application filed on June 9, 2000. Ex. 1001, codes (22), (45), (62), 1:7–9.

The '168 patent summarizes its invention as “a wireless communication and control system” with “a universal wireless device” and “a central server for storing communication protocols and control protocols.” Ex. 1001, 1:41–44. “The central server communicates the communication protocols and selectively communicates the control protocols between the wireless device and the central server.” *Id.* at 1:44–47. “The communication protocols configure the system for communication and the control protocols configure the system as one of an arbitrary number of intelligent appliance controllers.” *Id.* at 1:47–50. “The wireless device may be, for example, a hand-held computing device, wireless telephone, or cellular phone.” *Id.* at 1:52–54.

Figure 2C of the '168 patent is reproduced below.

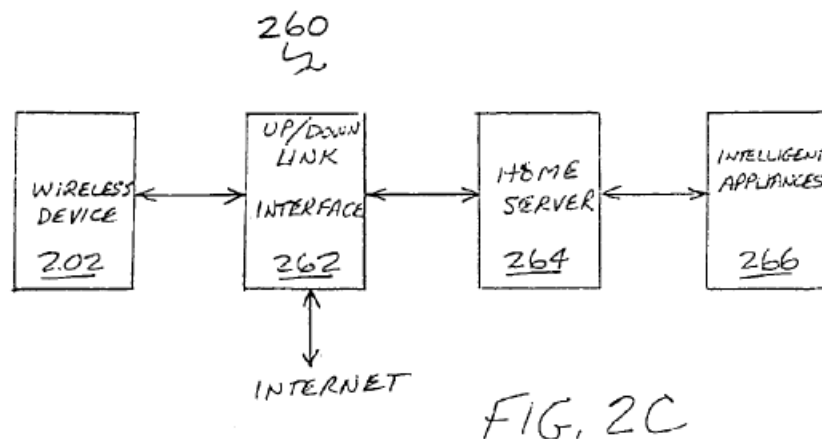


Figure 2C shows a wireless networking scheme. Ex. 1001, 2:1–2. Cellular telephone (“CT”) or mobile device (“MD”) 202 is in home loop 260 and

communicates with home server 264 through transmit/receive unit 262. *Id.* at 3:28–29, 4:53–56. Home server 264 can control home intelligent appliances 266 so that “CT/MD 202 can be a TV remote 272, remote access 274 for an oven or microwave for starting/stopping an operation at a desired time, or perform other household duties.” *Id.* at 4:56–60.

CT/MD 202 functions in home loop 260 under control of home network box 262 using a specific home frequency band. Ex. 1001, 4:61–63. Home network box 262 can operate at a frequency of a public carrier or a different frequency. *Id.* at 4:64–65, 5:1–3. According to the ’168 patent, it is desirable to have a different frequency optimized for the home area wireless network. *Id.* at 4:65–67.

CT/MD 202 can tune the frequencies for transmitting and receiving to particular primary and secondary frequencies. Ex. 1001, 5:66–6:4, 6:12–14, 6:42–45. The inputs and outputs of a network control box “are each dynamically tunable, such as to specific power levels, channel bandwidths and frequencies of operation, for maintaining reliability and integrity and to receive/transmit wireless communications from/to one or more services.” *Id.* at 6:53–57. Both CT/MD 202 and the wireless network control box “are dynamically configurable working in tandem with Server C 214.” *Id.* at 7:4–6, Fig. 2A. “Server C 214 can be used to keep the various ‘functional instruction sets’ (FIS) and software (S/W) 218 for use by the CT/MD 202.” *Id.* at 3:59–61.

“CT/MD 202 when in the home wireless network mode may switch itself . . . for optimal performance by downloading/uploading FIS 218 (function instruction software) and/or protocols in tandem with Server C 214.” Ex. 1001, 5:4–7. When configured by FIS 218, “CT/MD 202 may serve as a cordless phone (connected or hooked into a landed telephone line

as an example, and operating as a telephone or as an IP phone) in the home wireless network loop 260.” *Id.* at 5:8–12. If FIS 218 configures CT/MD 202 to emulate a cordless phone, “the cordless telephone base station may also be emulated by, for example, home server 264.” *Id.* at 5:12–18.

CT/MD 202, thus, “serves many purposes as opposed to requiring many telephone hand sets (one for the home, one for the office, and one for the car, as an example).” Ex. 1001, 5:19–23. Similarly, CT/MD 202 can also “serve as a remote controller for various IP based intelligent wireless or wired home appliances 266,” control the TV “if the TV set is capable of receiving wireless commands,” and open a garage door. *Id.* at 5:27–33. Commands or FIS 218 can be keypad, textual, sound, or voice actuated. *Id.* at 5:34–40.

*E. Illustrative Claim*

The ’168 patent includes 34 claims, of which Petitioner challenges claims 2–5, 19–23, 25, 28, 29, and 34. Of the challenged claims, claims 2 and 4 are independent, and claim 2 is reproduced below.

2. A system comprising:
  - a remote server configured to store wireless device software for a plurality of different functions or applications for use by a plurality of wireless devices,
  - wherein the remote server stores in memory software for a wireless device, wherein the remote server sends to the wireless device software, wherein the remote server stores profiles of user specific information,
  - wherein the wireless device is enabled for voice and data communication,
  - wherein the wireless device includes one or more functions of a cellular telephone, PDA, handheld computer, or multifunction communication device, or combinations thereof, wherein the wireless device is configured to use Internet protocol;

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