Trials@uspto.gov
571-272-7822

Paper No. 7
Entered: February 25, 2019

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

QUALCOMM, INC.,
Patent Owner.

Case IPR2018-01281
Patent 8,768,865 B2

Before DANIEL N. FISHMAN, MICHELLE N. WORMMEESTER, and AMANDA F. WIEKER, *Administrative Patent Judges*.

FISHMAN, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Apple Inc. ("Petitioner") requests *inter partes* review of claims 1–6, 8–25, 27–30, 46–49, and 51–53 (the "challenged claims") of U.S. Patent No. 8,768,865 B2 ("the '865 patent," Ex. 1001) pursuant to 35 U.S.C. §§ 311 *et seq*. Paper 2 ("Petition" or "Pet."). Qualcomm Incorporated ("Patent Owner") filed a Preliminary Response. Paper 6 ("Prelim. Resp.").

Institution of an *inter partes* review is authorized by statute when "the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Upon consideration of the Petition and Patent Owner's Preliminary Response, we conclude the information presented shows there is a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one challenged claim of the '865 patent. Therefore, we institute review of all challenged claims and all asserted grounds.

A. Real Parties-In-Interest and Related Matters

Apple Inc. is identified as the sole real party-in-interest. Pet. 77. The parties inform us that the '865 patent is presently asserted against Petitioner in the litigation *Qualcomm Inc. v. Apple Inc.*, Case No. 3:17-cv-02402 (S.D. Cal.). Pet. 77; Paper 4, 1. The parties further inform us that the '865 patent is at issue in *inter partes* review Case IPR2018-01282. Pet. 77; Paper 4, 1.

B. The '865 Patent

The '865 patent is generally directed to "machine learning of situations via pattern matching or recognition for use in or with mobile

communication devices." Ex. 1001, 1:21–23. According to the '865 patent, mobile communication devices (e.g., cellular and smart phones) may feature a number of sensors (built-in or otherwise supported) such as "accelerometers, gyroscopes, magnetometers, gravitometers, ambient light detectors, proximity sensors, thermometers, location sensors, microphones, cameras, etc." *Id.* at 24–37. The '865 patent states that a popular feature of such mobile devices is using such sensors to better understand what a user is presently doing so as to better assist the user in his/her present activity. *Id.* at 1:42–47. However, according to the '865 patent, the growing number of sensors generates a high volume of data to be captured and analyzed and, thus, creates challenges to efficiently and effectively capture and process such voluminous data. *Id.* at 1:47–60.

Specifically, the '865 patent identifies challenges for such mobile devices as follows:

> These challenges may include, for example, detecting or "picking up" patterns from a large number of information sources with an unknown or different subset of sources being relevant to different situations or contexts. In other words, in some instances, it may be somewhat difficult to detect or recognize an existing pattern if such a pattern is not pre-defined or pre-specified in some manner for a certain information source. Another challenge with typical approaches may be, for example, identifying one or more relevant situations and learning patterns that are correlated with or correspond to these relevant situations. Consider, for example, a multi-dimensional information stream captured or obtained via a variety of sensors with respect to a typical "return-home-after-work" experience of a user.

Id. at 7:8–21. The '865 patent further identifies challenges of the prior art as follows:

> As seen, because of an increased dimensionality of an information stream due, at least in part, to a large variation of sensor-tracked parameters indicative of user-related events or conditions (e.g., walking, driving, fidgeting, etc.), finding exact or approximate matches to a template, pre-defined or otherwise, may be rather difficult. In other words, at times, a relatively large number of varying parameters or variables associated with a multi-dimensional sensor information stream may be difficult to track, correlate, process, associate, etc., which in turn may limit the ability of a mobile device to react to different situations, make relevant inferences, or otherwise be aware of its context with sufficient accuracy. In addition, certain varying parameters or variables may be irrelevant to a particular user situation or context, in which case it may be important or otherwise useful to identify irrelevant or incidental variables so as to ignore or omit one or more corresponding irrelevant patterns from consideration, as described below.

Id. at 7:40–57.

The '865 patent purports to address these challenges by monitoring "one or more conditions or events of interest," rather than continuously monitoring all or most of the available sensor information. *Id.* at 7:64–8:1. In particular, according to the '865 patent, a *subset* of parameters associated with a condition or event of interest may be "fixed in some manner and stored in a suitable database." *Id.* at 8:12–15. The parameter values associated with the condition or event may be fixed, for example, "by associating corresponding parameters or variables having a particular, distinct, or otherwise suitable pattern to represent the condition or event." *Id.* at 8:19–21. "A suitable processor may then look or search for a pattern match, exact or approximate, in one or more other signal-related patterns every time a condition or event-related pattern occurs, for example, by

utilizing a 'snapshot,' in whole or in part, using any suitable pattern matching processes or algorithms." *Id.* at 8:25–31.

Figure 4 of the '865 patent is reproduced below.

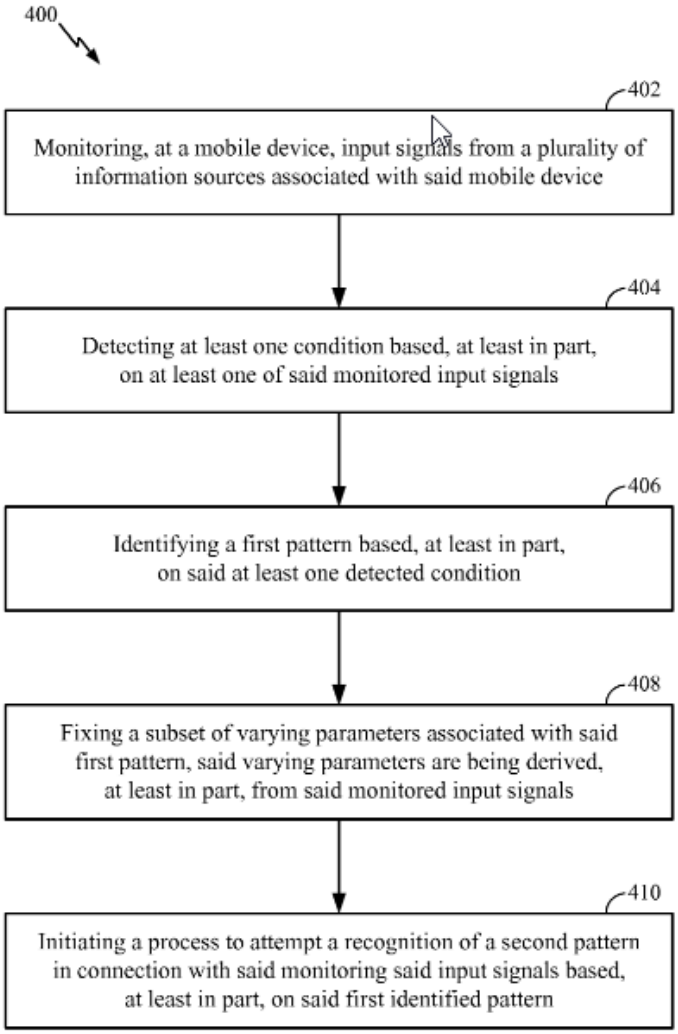

FIG. 4

Figure 4 is a flowchart of exemplary process 400 for machine learning of situations in a mobile device using pattern matching or recognition. *Id.* at 2:8–11. Step 402 monitors input signals from a plurality of sources (sensors) associated with the mobile device. *Id.* at 14:43–46. Step 404 detects at least one condition or event of interest based on at least one of the monitored input sources. *Id.* at 14:54–57. At step 406, a "first pattern may

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.