IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE PATENT TRIAL AND APPEAL BOARD

_____

SAMSUNG ELECTRONICS AMERICA, INC.,

Petitioners,

v.

COBBLESTONE WIRELESS, LLC,

Patent Owner.

_____

Case No. IPR2024-00317

U.S. Patent No. 8,554,196

_____

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,554,196

TABLE OF CONTENTS

I. Introduction 1

II. Standing 3

III. Identification of Challenge And Relief Requested 3

IV. Level Of Ordinary Skill In The Art 3

V. The ’196 patent 4

A. Overview 4

B. Prosecution History of the ’196 patent 7

VI. Claim Construction 9

VII. Overview Of The Prior Art 10

A. Chang (Ex. 1004) 10

VIII. Ground of Rejection 12

A. Ground 1: Claims 23-27 are obvious in view of Chang 12

1. Independent Claim 23 12

2. Dependent Claim 24 31

3. Dependent Claim 25 31

4. Dependent Claim 26 33

5. Dependent Claim 27 35

IX. Discretionary Denial 39

A. *Fintiv* 39

B. 35 U.S.C. §325(d) 40

X. Ranking of Parallel Petitions 40

XI. Mandatory Notices And Fees 43

A. Real Party-In-Interest 43

B. Related Matters.....43

C. Counsel and Service Information 44

D. Payment of Fees 45

XII. Conclusion 45

EXHIBIT LIST

Ex.	Description
1001	U.S. Patent No. 8,554,196 B2 ("'196 Patent")
1002	Prosecution History of U.S. Patent No. 8,554,196
1003	Expert Declaration of Mr. James A. Proctor
1004	U.S. Patent No. 9,830,642 B2 ("Chang")
1005	U.S. Patent No. 8,433,310
1006	*Curriculum Vitae* of Mr. James A. Proctor
1007	Plaintiff's Preliminary Disclosure of Asserted Claims and Infringement Contentions, Case No. 2:22-cv-00477-RSP (Mar. 13, 2023)
1008	Exhibit D to Plaintiff's Preliminary Disclosure of Asserted Claims and Infringement Contentions, Case No. 2:22-cv-00477-RSP (Mar. 13, 2023) ("'196 Claim Chart")
1009	Vinoth Gunasekaran & Fotois C. Harmantzis, *Towards a Wi-Fi ecosystem: Technology integration and emerging service models*, TELECOMMUNICATIONS POLICY 32, 163-181 (2008)
1010	*Cobblestone Wireless, LLC v. T-Mobile USA, Inc.*, No. 2:22-cv-00477-JRG-RSP (Lead Case), Dkt. 62, Docket Control Order
1011	*Cobblestone Wireless, LLC v. Samsung Electronics Co., Ltd.*, No. 2:22-cv-00285-JRG-RSP, Dkt. 29-1, Docket Control Order

LIST OF CHALLENGED CLAIMS

Claim	Limitation
[23.0]	A method for a device to receive data updates comprising:
[23.1]	cycling over time through an update sequence that includes:
[23.2]	deferring, during coverage by a first network, data updates for the device;
[23.3]	transmitting a data update request in response to coverage by a second network, wherein the second network is a more capable network than the first network; and
[23.4]	receiving, during the second coverage configuration, a data update.
24	The method of claim 23, wherein the device comprises at least one of a mobile phone, a smartphone, a laptop computer, a netbook device, a tablet device or a personal digital assistant.
25	The method of claim 23, wherein the update sequence further comprises: batching the deferred data updates for the device.
26	The method of claim 23, wherein the data update includes at least one of an email update, an Really Simple Syndication (RSS) feed update, a social networking update, a software update, a map update, or a gaming update.
27	The method of claim 23, wherein the first network and the second network comprise at least one of the following: the first network is a Third Generation Mobile (3G) network and the second network is an Enhanced Data Rates for Global Evolution

Claim	Limitation
	(EDGE) network, the first network is a Fourth Generation Mobile (4G) network and the second network is an Enhanced Data Rates for Global Evolution (EDGE) network, the first network is a Long Term Evolution (LTE) network and the second network is an Enhanced Data Rates for Global Evolution (EDGE) network, the first network is an Evolution-Data Optimized (EV-DO) network and the second network is a Code Division Multiple Access (CDMA) network, the first network is a Fourth Generation Mobile (4G) network and the second network is a Third Generation Mobile (3G) network, the first network is a data network and the second network is a voice network, or the first network is a data network and the second network is a mixed voice and data network.

I. INTRODUCTION

Samsung Electronics America, Inc. and Samsung Electronics Co., Ltd. ("Petitioners") respectfully requests *inter partes review* of claims 23-27 (the "Challenged Claims") of U.S. Patent No. 8,554,196 (the "'196 Patent") pursuant to 35 U.S.C. §311 and 37 C.F.R. §42.100. Petitioners note that the grounds of challenge in this Petition are a "copycat" of the Petition filed in *T-Mobile USA, Inc. et al. v. Cobblestone Wireless, LLC*, IPR2024-00135. Both Petitions challenge the same claims using the same prior art and for the same reasons. The expert declaration filed in this proceeding is substantively identical to the expert declaration in IPR2024-00135 and signed by the same expert, and both Petitions otherwise cite to the same exhibits. If IPR2024-00135 is instituted, Petitioners intend to move for joinder.

The challenged claims recite a method for deferring data updates on a mobile device, such as a smartphone. An example of the claimed method would be a user's iPhone waiting to download recent purchases until connected to a Wi-Fi network instead of downloading the recent purchases over a cellular connection. But this was not new. As shown in the below figure taken from the prior art relied upon in this petition, Apple's engineers beat the patentee to this idea:

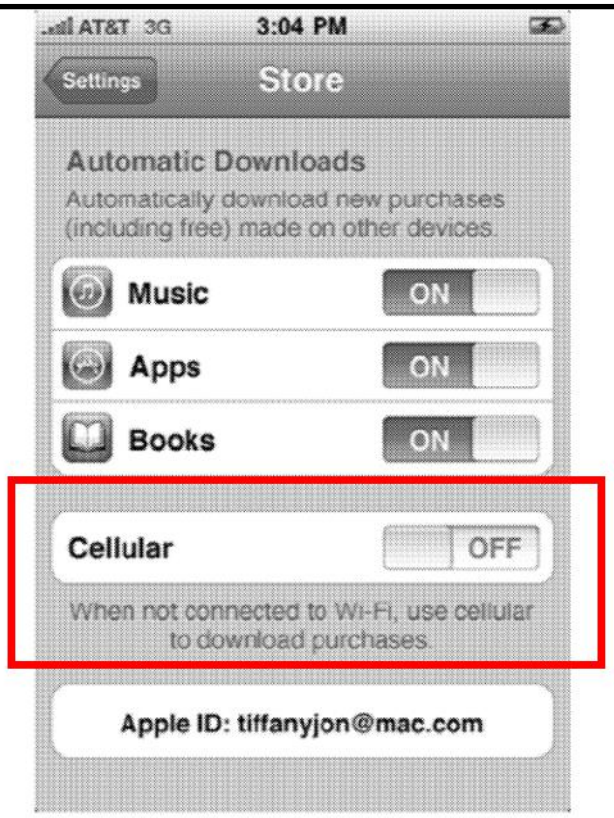


FIG. 9

Petitioner's expert, Mr. Proctor, confirms that the challenged claims are unpatentable over the Ground identified below. Petitioners respectfully request that the Board cancels the challenged claims.

II. STANDING

Petitioners certify that the ’196 patent is available for IPR and that Petitioners are not barred or estopped from presenting the grounds identified in this Petition.

III. IDENTIFICATION OF CHALLENGE AND RELIEF REQUESTED

Petitioners request cancellation of claims 23-27 (“Challenged Claims”) on the following grounds:

Ground	Reference(s)	Basis	Claims
1	Chang	§103	23-27

U.S. Patent No. 9,830,642 to Chang et al. (“Chang”) (Ex. 1004), titled “Intelligent delivery and acquisition of digital assets,” was filed as U.S. Patent Application No. 13/171,253 on June 28, 2011, and issued on November 28, 2017. Ex. 1004, Cover.

As stated on the face of the patent, the earliest priority date of the ’196 Patent is August 24, 2011. Because the application that became the ’196 Patent was filed before March 16, 2013, (pre-AIA) 35 U.S.C. §§ 102 and 103 are applicable. Chang qualifies as prior art under at least (pre-AIA) 35 U.S.C. § 102(e).

IV. LEVEL OF ORDINARY SKILL IN THE ART

A POSITA at the time of the alleged invention of the ’196 patent would have had at least a bachelor’s degree in electrical engineering, computer engineering, computer science, physics, or the equivalent, and at least two years of experience working in the field. Ex. 1003, ¶41. This description is approximate and a higher

level of education might make up for less experience and vice versa. *Id*. Relevant working experience would include experience with cellular telecommunications and networking, radio-access networking architectures, protocols and signal propagation in wireless networks. Ex. 1003, ¶41. More education can supplement practical experience and vice versa. Ex. 1003, ¶41.

V. THE '196 PATENT

A. Overview

The '196 Patent relates to providing different types of network coverage to electronic devices, including mobile phones, smart phones, laptops, netbooks, tablets, and personal digital assistants, among others. Ex. 1001, 10:33-35; Ex. 1003, ¶¶42-43. The '196 Patent points to alleged problems with prior art network coverage that potentially caused poor network conditions with a "relatively low power beam to both active and inactive devices." Ex. 1001, 1:11-17; Ex. 1003, ¶42.

The '196 Patent attempts to optimize network usage based on the services being used. Ex. 1001, 1:22-35; Ex. 1003, ¶43. For example, the '196 Patent describes different requirements for "continuous use" and "interval use" service. The '196 Patent explains that a continuous use service requires "substantially continuous service [which] may generally include any type of substantially continuous service including, for example, a voice call, a download, a content streaming, or the like." Ex. 1001, 3:47-51; Ex. 1003, ¶43. An interval use service does not require

continuous data but only requires data when using particular applications, such as "social networking applications, email, Really Simple Syndication (RSS) feeds, map updates, game update, sports score update, or the like. In such examples, the interval use device may be able to wait for data updates, feeds, or the like." Ex. 1001, 6:59-64; Ex. 1003, ¶43. The data needs of a continuous use and an interval service are thus different.

As a result, the '196 Patent recognizes that data updates for interval services may not need to be executed immediately, but can be postponed or batched together. Ex. 1001, 4:15-22 ("requests by applications requiring intermittent updates may be postponed and/or batched and not sent during coverage by the less capable network. Then, during the first coverage configuration when covered by the more capable network, the interval use devices requiring intermittent updates may request and/or receive data downloads related to those applications."); *id*. at 6:59-64; Ex. 1003, ¶¶45-46. Examples of the types of data updates that could be postponed or batched include purchased music, apps, books and any other types of data that must be synced with a mobile device. Ex. 1003, ¶¶44-45; Ex. 1001, 6:59-64, 10:23-35, 11:9-25.

Because different services have different data needs, the '196 Patent contemplates that different coverage configurations could be used to accommodate devices using different types of services. For example, one network configuration

may be more advantageous for a continuous use service while another network configuration is beneficial for interval use services. The '196 Patent thus describes a method for changing coverage configurations for a device. Ex. 1001, 1:22-35; Ex. 1003, ¶¶43-46. In one embodiment, the '196 Patent describes using different "beam[s]" to provide coverage depending on the network configuration. Ex. 1001, 1:22-35; Ex. 1003, ¶43. In another proposed embodiment, the different coverage configurations could include different types of networks. Ex. 1001, 3:51-53 ("the second coverage configuration may also include coverage by a second type of network."); Ex. 1003, ¶43.

By allowing coverage configurations using different networks, the '196 Patent allows for more data intensive services, like continuous use services, to be covered by "more capable" networks. Ex. 1001, 3:54-56; Ex. 1003, ¶¶ 45-46. The '196 Patent explains that "a more capable network may provide greater uplink and/or downlink rates, may be more stable, may be of a more advanced standard, or the like." Ex. 1001, 9:10-13; Ex. 1003, ¶45.

The '196 Patent further discloses that many different combinations of networks can be used together to provide the network coverages, including EDGE, 3G, 4G, and Wi-Max among others. Ex. 1001, 9:10-46; Ex. 1003, ¶45. To take advantage of the more capable network, the '196 Patent further discloses deferring

some services while on the less capable network, until the electronic device has coverage by the more capable network. Ex. 1001, Fig. 3; Ex. 1003, ¶¶ 45-46.

'196 Patent (Ex. 1001), Fig. 3.

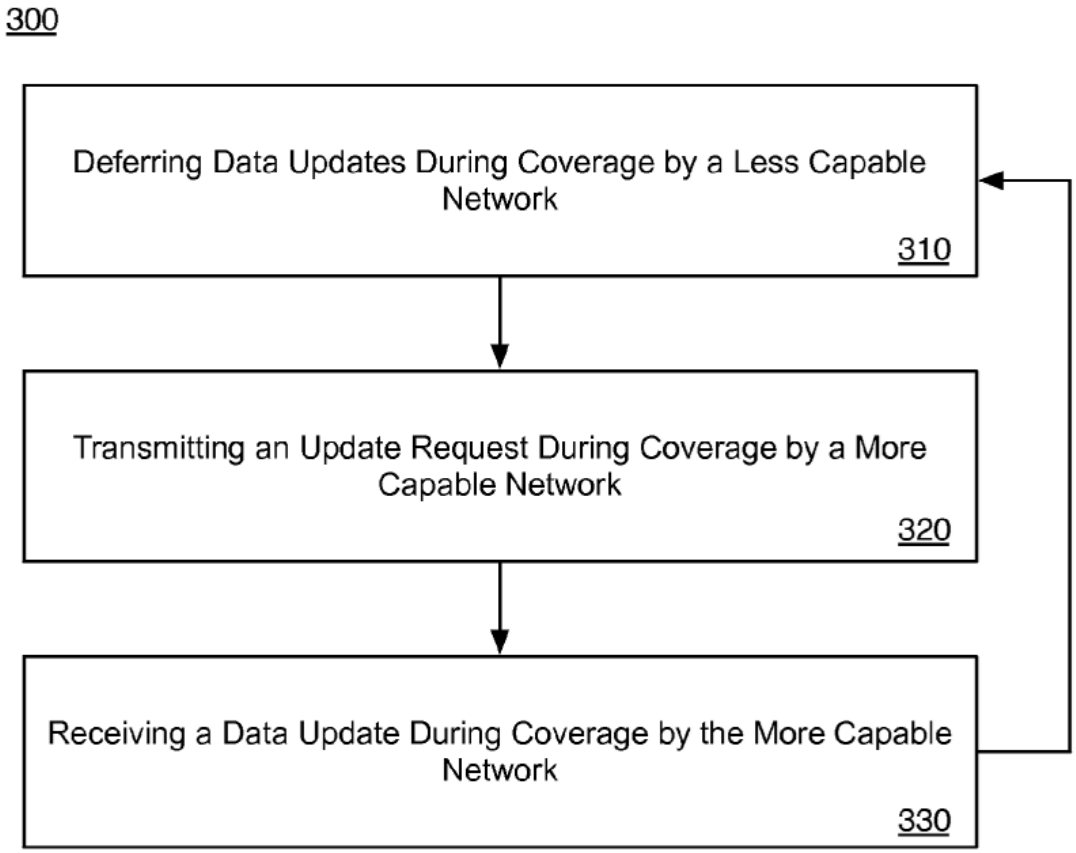


Fig. 3

B. Prosecution History of the '196 patent

The '196 Patent originated with the filing of U.S. Patent Application No. 13/321,792 ("the '792 App.") on November 21, 2011. Ex. 1001, Cover. The '196 Patent claims ultimate priority to PCT Application No. PCT/US2011/049003, which was filed on August 24, 2011. *Id*. The Patentee also petitioned to join the Patent

Prosecution Highway program based on the PCT application, which was granted on March 7, 2012. Ex. 1002 at 69.

After joining the Patent Prosecution Highway program, the '196 Patent had a very brief prosecution history. The examiner first issued a Non-Final Rejection of all claims on November 21, 2012, focused on a single obviousness combination, rejecting all claims under 35 U.S.C. § 103(a) as unpatentable over Vendryes (U.S. Patent No. 6,546,259) in view of Gale et al. (U.S. Patent App. Pub. No. 2011/0223925). Ex. 1002 at 164-70. The Non-Final Rejection focused the majority of discussion on the first independent claim, with the only discussion of the challenged claims (23-27) being that "[c]laims 14-27 incorporate the limitations of claims 1-13, and are therefore rejected for the same reasons as claims 1-13." Ex. 1002 at 169; Ex. 1003, ¶49.

With regard to the challenged claims, the applicant did not submit an amendment. Instead, the applicant distinguished independent claim 23 (and dependent claims 24-27) from the prior art because claim 23 required "in part 'transmitting a data update request in response to coverage by a second network, wherein the second network is a more capable network than the first network." Ex. 1002 at 198; Ex. 1003, ¶50. The examiner then allowed all claims, with claims 23-27 not receiving any substantive rejections or discussion. Ex. 1002 at 213-14; Ex. 1003, ¶50.

VI. CLAIM CONSTRUCTION

In an *inter partes* review, claims are "construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b)." 37 C.F.R. 42.100(b) §42.100(b). When a trial is instituted, claim terms must be given their plain ordinary and customary meaning as understood by a POSITA during the relevant timeframe in light of the specification and the prosecution history. *Id.; Phillips v. AWH Corp*., 415 F.3d 1303, 1312-13 (Fed. Cir. 2015) (en banc); *see* 83 Fed. Reg. 51340.

Claim 23 requires "wherein the second network is a *more capable* network than the first network." Ex. 1001, cl. 23. "More capable" is a term of degree. However, the prior art discloses a first and second network combination coextensive with the examples given in the 196 Patent specification. For example, the '196 Patent describes "a more capable network may provide greater uplink and/or downlink rates, may be more stable, may be of a more advanced standard, or the like." Ex. 1001, 9:10-13; Ex. 1003, ¶53. The prior art disclosure is consistent with these examples. Thus, while Petitioners do not take a position as to the definiteness of the full scope of this limitation, it is unnecessary for the Board to determine whether the full scope of the claims are definite. *See, e.g., Mylan Pharms. Inc. v. Horizon Pharma USA*, IPR2017-01995, Paper 72 at 5-6 (Mar. 28, 2019) ("[W]e need not

necessarily determine the outer boundaries of a claim in reaching a conclusion as to whether the asserted prior art anticipates a claim or renders it obvious.”).

VII. OVERVIEW OF THE PRIOR ART

A. Chang (Ex. 1004)

Chang issued on November 28, 2017, from U.S. Patent Application No. 13/171,253, which was filed on June 28, 2011. Ex. 1004, Cover; Ex. 1003, ¶55. Chang also claims priority to U.S. Provisional Patent Application No. 61/451,057, which was filed on March 9, 2011. Ex. 1004, Cover; Ex. 1003, ¶¶55, 104-5. Chang is prior art to the ’196 Patent under at least 35 U.S.C. § 102(e) (pre-AIA). The inventors assigned their interest in Chang to Apple Inc. Ex. 1004, Cover.

Chang discloses “[i]mproved techniques and systems for delivery and acquisition of digital assets . . . that are available for acquisition and electronic delivery from online stores to electronic devices” where “digital assets” include “various types of media related items (e.g., musical albums, songs, movies, audio, video, textual content, books) as well as various application programs (‘applications’) that can be provided for electronic devices.” Ex. 1004, Abstract, 4:53-58; Ex. 1003, ¶56.

Chang, like the ’196 Patent, discloses methods for limiting data updates depending on the coverage configuration (*e.g.*, data updates only occur over specific networks, such as Wi-Fi). Ex. 1001, 3:51-56; Ex. 1004, 13:41-56; Ex. 1003, ¶¶57-

58. For example, Chang discloses that, in certain configurations, digital assets are automatically downloaded when purchased by a user. Ex. 1004, 1:60-67. Chang, however, discloses that the automatic downloads can be deferred if particular network conditions are not met. Ex. 1004, 11:53-57, 13:12-16, 13:41-56. For example, even if a user purchases a digital asset and has automatic downloading enabled, the automatic download might not occur if the target device is not connected to the correct network type, network connectivity is poor, and/or a minimum network bandwidth is not met. Ex. 1004, 11:53-57, 13:12-16, 13:41-56.

In addition to the identified criteria for delaying automatic downloads, Chang particularly identifies a proposed embodiment that describes providing a user interface through which the user can choose whether to automatically download digital assets over Wi-Fi networks only, or instead also allow for automatic downloads to occur over cellular networks. Ex. 1004, Fig. 9 (below).

Chang (Ex. 1004), Fig. 9 (annotated).

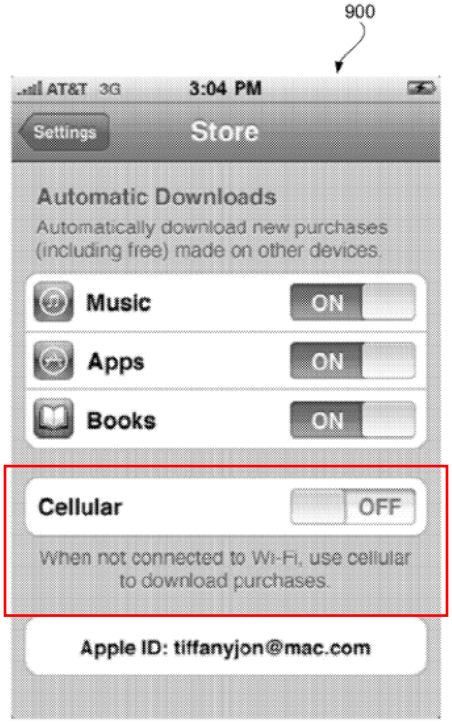


FIG. 9

VIII. GROUND OF REJECTION

A. Ground 1: Claims 23-27 are obvious in view of Chang

1. Independent Claim 23

(a) [23.0] A method for a device to receive data updates comprising:

Chang renders obvious "[a] method for a device to receive data updates." Ex. 1003, ¶¶60-67.

Chang discloses "[i]mproved techniques and systems for delivery and acquisition of digital assets" where "[t]he techniques and systems are especially suitable and useful for delivering digital assets (e.g., media assets) that are available

for acquisition and electronic delivery from online stores to electronic devices." Ex. 1004, Abstract; Ex. 1003, ¶60. Chang defines "digital assets" as including "various types of media related items (e.g., musical albums, songs, movies, audio, video, textual content, books) as well as various *application programs* ("*applications*") that can be provided for electronic devices (e.g., productivity products, games, computer applications for computing devices)." Ex. 1004, 4:53-58 (*emphasis added*); Ex. 1003, ¶60.

Chang proposes a method for delivering these digital assets that includes "automatically download[ing] a digital asset when it receives a notification (e.g., a push notification) directly or indirectly via an online store server." Ex. 1004, 4:32-38; Ex. 1003, ¶61. The automatic downloading can also be limited, for example, by allowing "the user to select whether the automatic downloads should take place via a cellular network (which may have a data transfer fee)." Ex. 1004, 13:41-56, Fig. 9. Chang goes on to state, "If the selectable option is set to 'off', then automatic download will only occur when the electronic device is connected to a Wi-Fi connection." Ex. 1004, 13:41-56, Fig. 9; Ex. 1003, ¶61. Chang also provides a user interface to select between allowing Wi-Fi only automatic downloads, or also allowing automatic downloads on cellular networks as well. *Id*.

Chang (Ex. 1004), Fig. 9 (annotated).

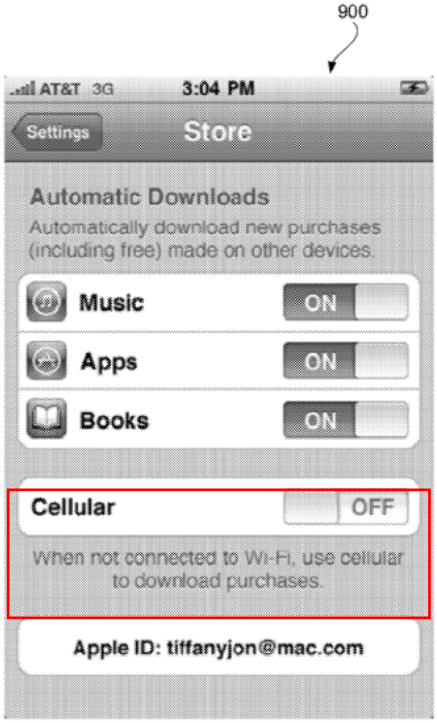


FIG. 9

The '196 Patent describes data updates as being sent for interval use services such as "social networking applications, email, Really Simple Syndication (RSS) feeds, map updates, game update, sports score update, or the like. In such examples, the interval use device may be able to wait for data updates, feeds, or the like." Ex. 1001, 6:59-64; Ex. 1003, ¶62. The '196 Patent also notes that data updates can be for a single application or multiple applications. Ex. 1001, 11:4-7; Ex. 1003, ¶62. A POSITA would have understood the data updates disclosed in the '196 Patent to describe any data that needs to be pushed to the device to ensure that the mobile device is up to date, including the specifically enumerated types of data described

above. Ex. 1001, 4:15-22 ("the interval use devices requiring intermittent updates may request and/or receive data downloads related to those applications."); *id*. at 6:59-64; Ex. 1003, ¶62. Likewise, purchased music, apps, books and any other types of data that must be synced with a mobile device would also be considered "data updates," because they are data updates for the supporting application. Ex. 1003, ¶62; Ex. 1001, 6:59-64, 10:23-35, 11:9-25. Thus, for example, Chang describes foregoing automatic downloading of "books" if the "book reading/presenting application has been uninstalled." Ex. 1004, 15:12-22; Ex. 1003, ¶65. It should also be noted that in the district court case Patent Owner likewise asserts that application updates and software updates meet the "data updates" limitation of element [23.0]. Ex. 1008 at 3-7; Ex. 1003, ¶63.

Both Chang and the '196 Patent are related to mobile device applications, and transmitting data related to those applications. Ex. 1003, ¶64. A POSITA would have understood the digital assets of Chang to comprise the data updates of the '196 Patent, as both describe data that needs to be sent to the mobile device. Ex. 1003, ¶64; Ex. 1001, 11:4-7; Ex. 1008 at 3-7; Ex. 1004, 1:23-24, 4:53-58. Chang expressly discusses transmitting data related to applications, and further discloses that the required version of the application will be checked before transmission, so that "a new or revised version of an asset can be effectively automatically downloaded if

available at the time the download takes place." Ex. 1004, 14:52-55; Ex. 1003, ¶¶65-66.

Chang also discloses requiring "determining an appropriate type, version and/or format [of the digital asset] to be delivered to a particular electronic device." Ex. 1004, 11:35-44; Ex. 1003, ¶¶65-66. This information can be used to create automatic download configuration user interfaces which are dependent on the particular versions and types of applications supported by a given mobile device. Ex. 1003, ¶65; Ex. 1004, 13:3-18. The identified version of a digital asset can also be used to make sure the mobile device is receiving the most up-to-date digital asset. Ex. 1003, ¶¶65-67; Ex. 1004, 14:52-55.

Therefore, Chang discloses evaluating the current version of a digital asset to be transmitted and sending a "new or revised version" of the digital asset if available, which a POSITA would have understood to include updated versions of each digital asset. *Id*. Taking Patent Owner's view that at least application updates and software updates are "data updates" as argued in its infringement contentions, Chang expressly discloses these same updates. Ex. 1003, ¶¶63-67; Ex. 1004, 11:35-44, 14:52-60; Ex. 1008 at 3-7.

It also would have been obvious to a POSITA that the "appropriate . . . version [of a digital asset] to be delivered" and installed would constitute a "new or revised version" of an older digital asset already installed on the device. Ex. 1004, 11:35-

44, 14:52-55; Ex. 1003, ¶67. A POSITA would be motivated to deliver and install the most up-to-date version of a digital asset in order to improve user experience, such as providing improvements, new features, or bug fixes to the older digital asset. Ex. 1003, ¶67. Indeed, Chang does not disclose foregoing the delivery and installation of "new or revised version[s]" of digital assets if the device contains an older version of the digital asset. *Id*. Thus, no modification to Chang's system is necessary in order to deliver updated versions of assets already installed on a user device. *Id*. Thus, a POSITA would have reasonably expected the provision of such data updates to succeed. *Id*.

Chang also discusses automatically downloading purchases to new devices, where it would have been obvious to a POSITA that Chang would check the version of the digital assets to be transmitted and make sure the most recent version is sent. Ex. 1003, ¶67; Ex. 1004, 8:57-64. It would also have been obvious to a POSITA that checking the current version of a digital asset and sending the newest version to a new electronic device would be equally applicable to electronic devices that have received previous versions of the digital asset. Ex. 1003, ¶67. Thus, Chang renders obvious the elements of [23.0].

(b) [23.1] cycling over time through an update sequence that includes:

Chang renders obvious "cycling over time through an update sequence." Ex. 1003, ¶¶68-73. Specifically, the proposed method 600 of Chang is cycled over time

to provide automatic download of digital assets to an electronic device. Ex. 1003, ¶¶68-69.

First, method 600 continuously evaluates whether a digital asset (data update) has been purchased that requires automatic download. *See* Ex. 1003, ¶¶68-69; Ex. 1004, Fig. 6 at 602.

Chang (Ex. 1004), Fig. 6 (annotated).

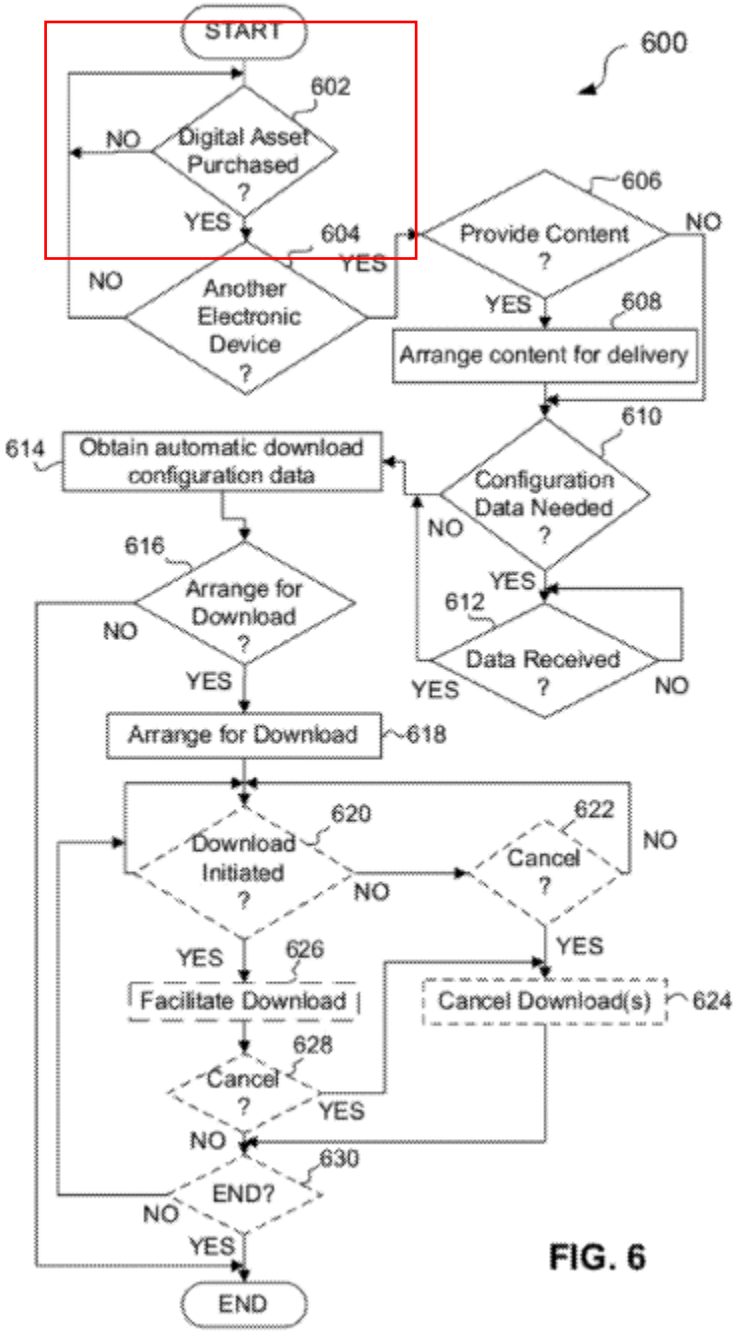


FIG. 6

Method 600 will continue to cycle through the first step 602 to check whether a digital asset has been purchased and whether the content needs to be provided to the mobile device. *Id*. If no digital asset is purchased, the method will return to the

start of the sequence. *Id*. Chang also discloses that method 600 can be cycled for a given period of time. Ex. 1003, ¶69; Ex. 1004, 11:60-62 ("Method 600 can, for example, end after the arranged automatic downloads have been completed or canceled, or after a determined amount of time has lapsed."). Thus, Chang expressly discloses cycling over time through an update sequence, as described in element [23.1].

Second, Chang discloses that the automatic updates can be sent in only certain scenarios, such as when particular criteria are met. Ex. 1003, ¶70; Ex. 1004, 11:53-57, 13:12-16, 13:41-56. These criteria can include limiting automatic downloads to only be sent on certain types of networks, or when minimum connectivity and bandwidth metrics are met. Ex. 1004, 11:53-57, 13:12-16, 13:41-56; Ex. 1003, ¶70. If any of the required criteria are not met, the automatic update will be deferred until the criteria are fulfilled. Ex. 1003, ¶70; Ex. 1004, 11:53-57, 13:12-16, 13:41-56. This is shown in step 618, where "[a]rranging (618) the digital asset for delivery can, for example, include determining an appropriate type, version and/or format to be delivered to a particular electronic device, sending a push notification to an electronic device, storing the appropriate digital asset in a delivery queue for delivery at an appropriate time (e.g., when one or more network conditions are met), and/or recording automatic download data for a particular user and/or device." Ex. 1004, 11:35-43; Ex. 1003, ¶70.

Chang (Ex. 1004), Fig. 6 (annotated).

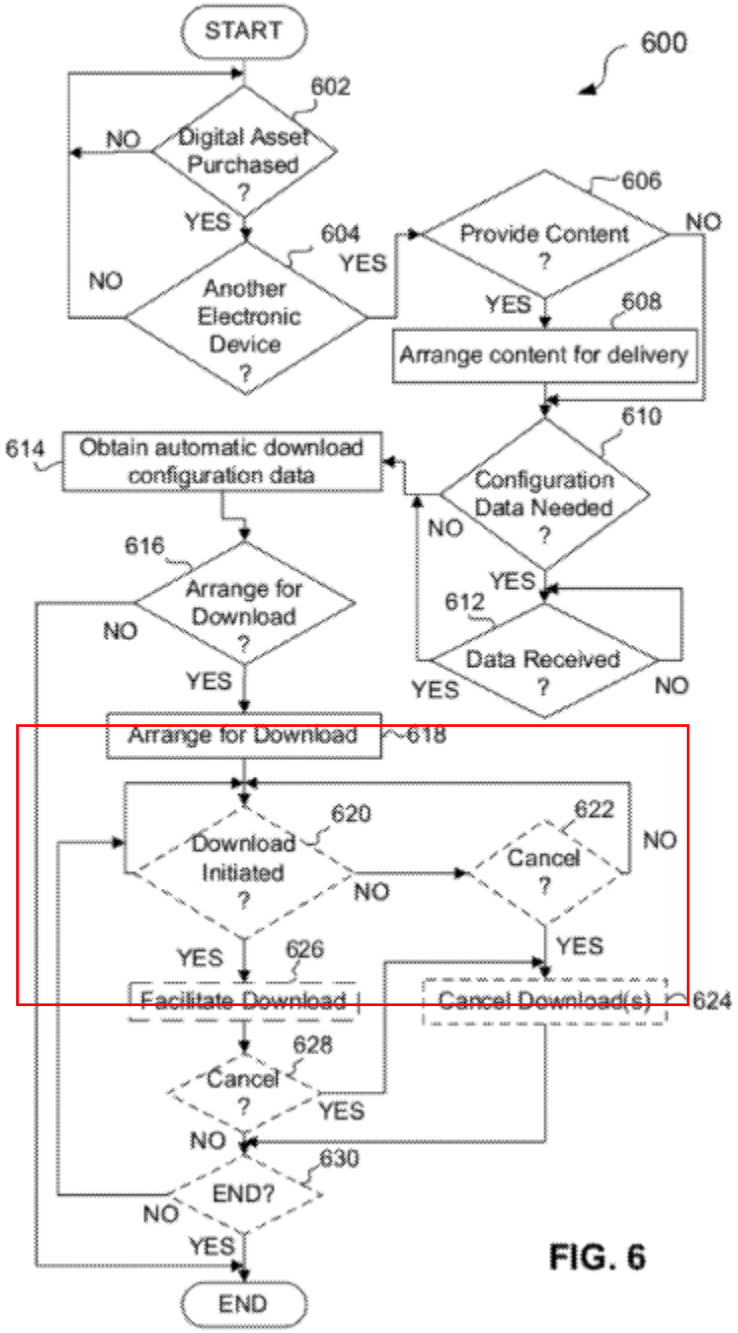


FIG. 6

Chang also discloses that the method "can determine (620) whether download is to be initiated or whether the automatic download is to be cancelled (622) before the download is initiated . . . An automatic download can, for example, be initiated

when an electronic device initiates it and/or one or more delivery conditions are met (e.g., network type or bandwidth is appropriate for download)." Ex. 1004, 11:46-57; Ex. 1003, ¶71. Because the automatic update cannot be sent until the particular criteria are met, this particular portion of method 600 must be repeatedly cycled over time to evaluate the identified criteria until either the download is completed or canceled. Ex. 1003, ¶71; Ex. 1004, Fig. 6, 11:46-57. In the express example identified in Chang, if the automatic download function was limited to Wi-Fi networks only, the server would be required to continue evaluating whether the electronic device is covered by a Wi-Fi network, cycling over time through its evaluation. Ex. 1004, 13:41-56, Fig. 6, Fig. 9; Ex. 1003, ¶¶71-72. Only once the particular criteria are met or the download is canceled would the automatic download sequence be completed. *Id*. Therefore, Chang renders obvious the elements of [23.1].

(c) [23.2] deferring, during coverage by a first network, data updates for the device;

Chang renders obvious "deferring, during coverage by a first network, data updates for the device." Ex. 1003, ¶¶73-75. In particular, Chang discloses functionality that allows an electronic device to "automatically download a digital asset when it receives a notification (e.g., a push notification) directly or indirectly via an online store server." Ex. 1004, 4:32-38; Ex. 1003, ¶73.

Chang further discloses that the automatic download feature can limit when automatic downloads are sent, "to effectively allow the user to select whether the

automatic downloads should take place via a cellular network (which may have a data transfer fee). If the selectable option is set to 'off', then automatic download will only occur when the electronic device is connected to a Wi-Fi connection." Ex. 1004, 13:41-56, Fig. 9; Ex. 1003, ¶74.

Chang (Ex. 1004), Fig. 9.

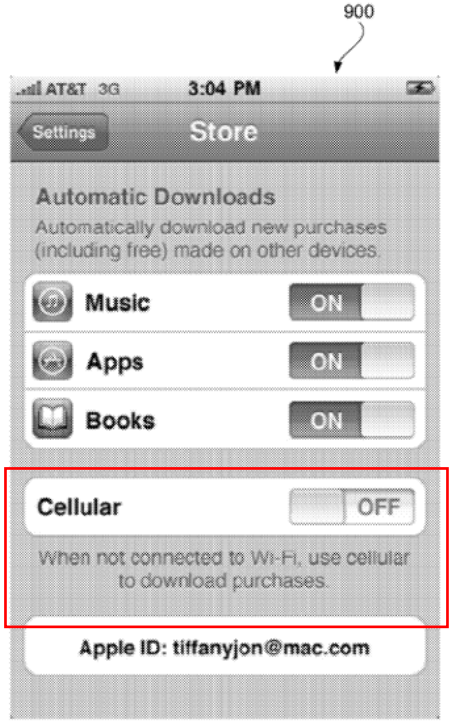


FIG. 9

In this disclosed embodiment, the first network is the cellular network. Ex. 1003, ¶¶74-75; Ex. 1004, 13:41-56, Fig. 9. When the cellular option is turned "off" digital assets can only be downloaded on a Wi-Fi network and cannot be downloaded on the cellular network. Ex. 1003, ¶¶74-75; Ex. 1004, 13:41-56, Fig. 9. The digital assets of Chang are the claimed data updates described in the '196 Patent.

See supra § VIII.A.1.VIII.A.1(a); Ex. 1003, ¶75. Thus, automatic download of digital assets (data updates) is deferred during coverage by the cellular network (first network), and therefore Chang renders obvious the elements of [23.2].

(d) [23.3] transmitting a data update request in response to coverage by a second network, wherein the second network is a more capable network than the first network; and

Chang renders obvious "transmitting a data update request in response to coverage by a second network, wherein the second network is a more capable network than the first network." Ex. 1003, ¶¶76-82. In particular, Chang discloses functionality that allows an electronic device to "automatically download a digital asset when it receives a notification (e.g., a push notification) directly or indirectly via an online store server." Ex. 1004, 4:32-38; Ex. 1003, ¶¶76-77. A push notification is a data update request sent from the server, requesting that the device download the update. *Id.* Chang further discloses that the push notification "can instruct a recipient electronic device to transparently check its delivery queue" and then download the digital assets. Ex. 1004, 13:66-14:10; Ex. 1003, ¶77. A POSITA would understand that checking the delivery queue is also a data update request for downloading the update. *Id.*

Chang further discloses that the automatic download feature can limit when automatic downloads are sent, "to effectively allow the user to select whether the automatic downloads should take place via a cellular network (which may have a

data transfer fee)." Ex. 1004, 13:41-56, Fig. 9. Chang goes on to state, "If the selectable option is set to 'off', then automatic download will only occur when the electronic device is connected to a Wi-Fi connection." Ex. 1004, 13:41-56, Fig. 9; Ex. 1003, ¶76.

Chang (Ex. 1004), Fig. 9 (annotated).

FIG. 9

In this embodiment, the first network is the cellular network, and the second network is the Wi-Fi network. Ex. 1003, ¶¶77, 81-82; Ex. 1004, 13:41-56, Fig. 9. When the cellular option is turned "off" digital assets can only be downloaded on a Wi-Fi network and cannot be downloaded on the cellular network. Ex. 1003, ¶¶77, 81-82; Ex. 1004, 13:41-56, Fig. 9. The digital assets of Chang are the claimed data

updates described in the '196 Patent. *See supra* §VIII.A.1.VIII.A.1(a); Ex. 1003, ¶77. Thus, automatic download of digital assets (data update requests) is deferred during coverage by the cellular network (first network), and instead sent in response to coverage by the Wi-Fi network (second network). Likewise, the push-notification indicating that an automatic download should take place will not be sent until the device has coverage from a Wi-Fi network. Ex. 1004, 4:32-38, 13:66-14:10; Ex. 1003, ¶77.

Claim element [23.3] also requires the second network to be "more capable" than the first network.[1] The '196 Patent provides as an example "a more capable network may provide greater uplink and/or downlink rates, may be more stable, may be of a more advanced standard, or the like." Ex. 1001, 9:10-13; Ex. 1003, ¶78. The '196 Patent also notes that any combination of wireless technologies could be used for the first and second networks, including EDGE, 3G, 4G, and Wi-Max among others. Ex. 1001, 9:10-46; Ex. 1003, ¶78.

---

[1] Petitioners take no position as to the definiteness of the of the full scope of this claim. However, because the asserted art is coextensive with the embodiments in the specification, it is unnecessary for the Board to determine whether the full scope of the claims are definite. *See, e.g., Mylan Pharms. Inc. v. Horizon Pharma USA*, IPR2017-01995, Paper 72 at 5-6 (Mar. 28, 2019).

Chang also discloses evaluating network type and network strength in determining appropriate network configurations. Ex. 1003, ¶79; Ex. 1004, 11:53-57 ("An automatic download can, for example, be initiated when an electronic device initiates it and/or one or more delivery conditions are met (e.g., network type or bandwidth is appropriate for download)."). It would have been obvious to a POSITA that this disclosure, in conjunction with the previous disclosure that Wi-Fi networks can be selected over cellular networks, demonstrates that the Wi-Fi network is selected because it can be seen as better or "more capable" than the alternative cellular network. Ex. 1003, ¶80. This makes sense because at the time of the '196 Patent, under particular network conditions Wi-Fi networks could have higher uplink or downlink data transmission rates than alternative cellular networks (e.g., 3G networks). Ex. 1003, ¶80; Ex. 1004, 13:41-56; Ex. 1009 at 166.

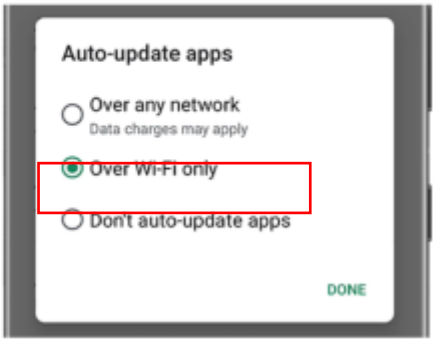
Additionally, Patent Owner put forth infringement contentions in the district court case arguing that Wi-Fi networks can be viewed as more capable than cellular networks in the context of the '196 Patent. *Compare* Ex. 1008 at 19-30 (asserting infringement of claim element [23.3]), with Ex. 1004, Fig. 9; Ex. 1003, ¶¶81-82.

Patent Owner's Infringement Contentions (Ex. 1008) at 20 (annotated).

Turn On Auto Update in Play Store

Let the Play Store take care of updates automatically so you don't have to worry about it.

1. Open the **Play Store**, and then tap your profile picture.
2. Tap **Settings**, and then tap **Network preferences**.
3. Tap **Auto-update apps**, and then select your desired setting.



Chang (Ex. 1004), Fig. 9 (annotated).

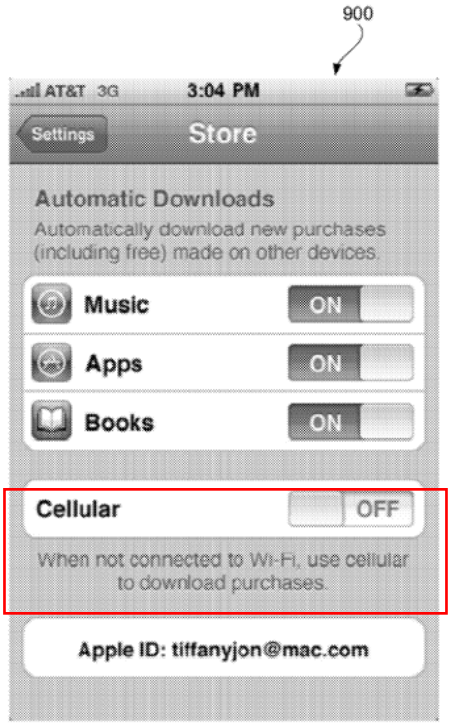


FIG. 9

Based on the disclosure in Chang regarding limiting automatic downloads to Wi-Fi networks only, and Patent Owner's nearly identical assertions in the district

court litigation, it would have been obvious to a POSITA that Chang likewise discloses transmitting data updates and data update requests over a second "more capable" network. Ex. 1003, ¶82. Therefore, Chang renders obvious the elements of [23.3].

(e) [23.4] receiving, during the second coverage configuration, a data update.

Chang renders obvious "receiving, during the second coverage configuration, a data update." Ex. 1003, ¶¶83-84. Chang discloses setting the automatic download feature to "only occur when the electronic device is connected to a Wi-Fi connection," *i.e.* when the device has coverage by the Wi-Fi network. Ex. 1004, 13:41-56; Ex. 1003, ¶83. A POSITA would understand that the Wi-Fi network would be considered the second network upon which the digital assets are sent, whereas the cellular network is the first network for which digital asset transmission is deferred—thus, coverage by the Wi-Fi network would meet the claimed "second coverage configuration." Ex. 1003, ¶83; Ex. 1004, 13:41-56, Fig. 9. Once the digital asset is received by the electronic device, Chang further discloses that it can then be post processed "once it is determined (724) that the download has been completed." Ex. 1004, 12:43-45; Ex. 1003, ¶83.

Chang (Ex. 1004), Fig. 7 (annotated).

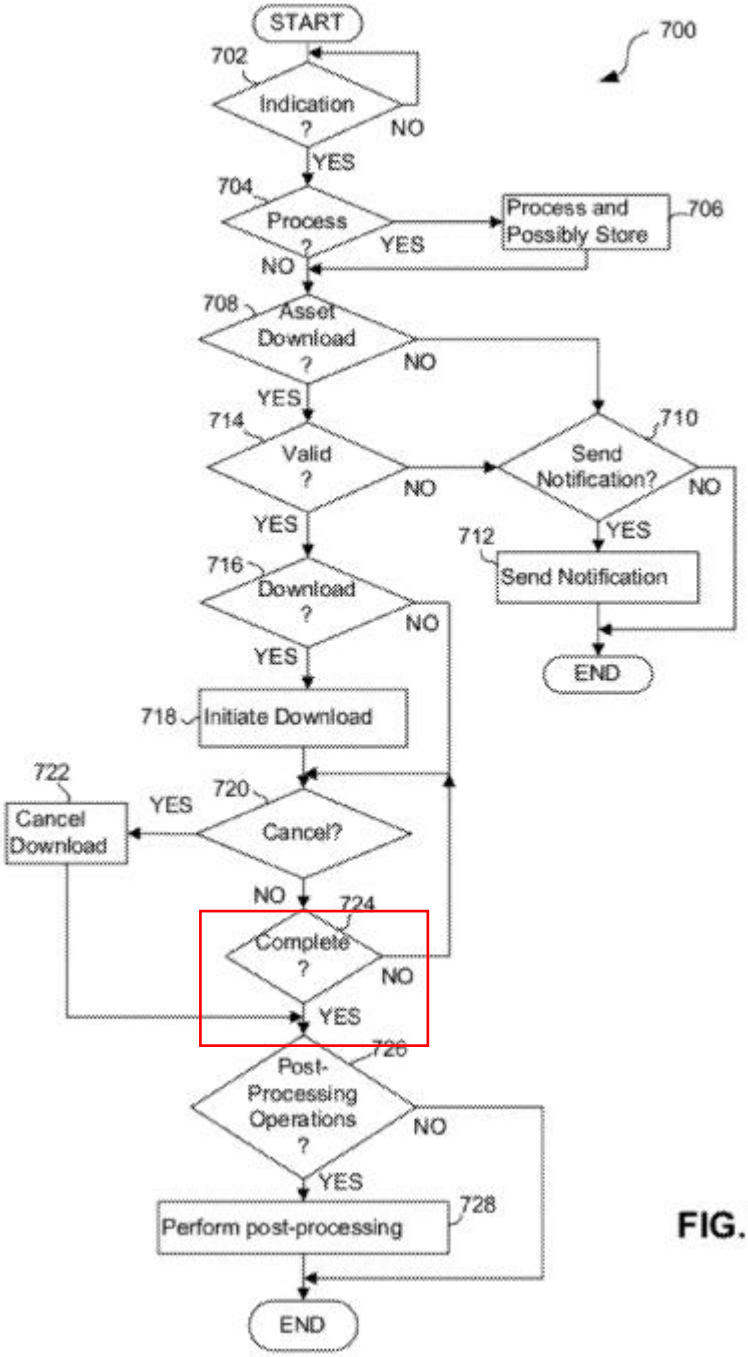


FIG. 7

Thus, Chang renders obvious the elements of [23.4].

2. Dependent Claim 24

Chang renders obvious "[t]he method of claim 23, wherein the device comprises at least one of a mobile phone, a smartphone, a laptop computer, a netbook device, a tablet device or a personal digital assistant." Ex. 1003, ¶¶85-86.

Chang discloses that "it will readily be known that an electronic device provided in accordance with one or more embodiments can, for example, be a computing device (e.g., personal computer), mobile phone (e.g., cellular phone), personal digital assistant (PDA), media player (e.g., music, videos, games, images), media storage device, camera, and/or the like." Ex. 1004, 15:25-35; Ex. 1003, ¶86. Thus, Chang renders obvious the elements of dependent claim [24].

3. Dependent Claim 25

Chang renders obvious "[t]he method of claim 23, wherein the update sequence further comprises: batching the deferred data updates for the device." Ex. 1003, ¶¶87-92. Chang discloses delaying automatic downloads when certain criteria are not met. Ex. 1003, ¶88; Ex. 1004, 11:53-57, 13:12-16, 13:41-56. These criteria can include requiring a particular network type, certain connectivity requirements, or a minimum bandwidth. *Id*. If multiple data updates or automatic download requests are made while the above criteria are not met, the automatic downloads would be held back and deferred until such time that the criteria is met. Ex. 1003, ¶88; Ex. 1004, 13:57-63.

Chang discloses that arranging delivery of the digital asset can "include determining an appropriate type, version and/or format to be delivered to a particular electronic device, sending a push notification to an electronic device, storing the appropriate digital asset in a delivery queue for delivery at an appropriate time (e.g., when one or more network conditions are met)." Ex. 1004, 11:35-42. The delivery queue can also contain automatic downloads aggregated over several months. Ex. 1004, 14:46-55; Ex. 1003, ¶89. It would have been obvious to a POSITA that when the multiple aggregated automatic downloads are deferred and placed in the delivery queue, they will be sent together in a single batch once the appropriate network conditions are met. Ex. 1003, ¶89; Ex. 1004, 11:35-42. A POSITA would understand that a "queue" is a FIFO data structure that includes multiple digital assets. *Id*.

One particular embodiment discloses that automatic downloads can be required to occur over a Wi-Fi network. Ex. 1004, 13:41-56; Ex. 1003, ¶90. Even if multiple automatic download requests are sent, it would have been obvious to a POSITA that each request would be deferred until the electronic device is covered by a Wi-Fi network. *Id*. It would also have been obvious to a POSITA that in these situations, all the automatic download requests would be fulfilled at the same time once the user has coverage from a Wi-Fi network. Ex. 1003, ¶89.

Chang also discloses that automatic downloads can be deferred when download speeds are slow, regardless of whether the user is covered by a Wi-Fi network. Ex. 1003, ¶91; Ex. 1004, 11:53-57 ("An automatic download can, for example, be initiated when an electronic device initiates it and/or one or more delivery conditions are met (e.g., network type or bandwidth is appropriate for download).") It would have been obvious to a POSITA that in these situations as well, once the correct network type and appropriate bandwidth are indicated, all the requested automatic downloads in the delivery queue would be sent at once. Ex. 1003, ¶91.

Therefore, Chang discloses deferring automatic downloads when particular criteria are not met, and it would have been obvious to a POSITA that automatic downloads that were deferred while the criteria were not met would be sent all at once when the criteria are fulfilled. Thus, Chang renders obvious the elements of dependent claim [25].

4. Dependent Claim 26

Chang renders obvious "[t]he method of claim 23, wherein the data update includes at least one of an email update, an Really Simple Syndication (RSS) feed update, a social networking update, a software update, a map update, or a gaming update." Ex. 1003, ¶¶93-98. In particular, Chang discloses that "digital assets" include "various types of media related items (e.g., musical albums, songs, movies,

audio, video, textual content, books) as well as various *application programs* ("*applications*") that can be provided for electronic devices (e.g., productivity products, *games*, *computer applications* for computing devices)." Ex. 1004, 4:53-58 (*emphasis added*); Ex. 1003, ¶94.

As discussed above, both Chang and the '196 Patent are related to applications and transmitting data related to those applications. *See supra* § VIII.A.1.VIII.A.1(a); Ex. 1003, ¶95. A POSITA would have understood the digital assets of Chang to comprise the data updates of the '196 Patent, as both describe data that needs to be sent to the mobile device. Ex. 1001, 11:4-7; Ex. 1008 at 3-7; Ex. 1003, ¶95; Ex. 1004, 1:23-24, 4:53-58. Chang expressly discusses transmitting data related to applications and further discloses that the required version of the application will be checked before transmission so that "a new or revised version of an asset can be effectively automatically downloaded if available at the time the download takes place." Ex. 1004, 14:52-55; Ex. 1003, ¶95. Therefore, Chang discloses evaluating the current version of a digital asset to be transmitted and sending a "new or revised version" of the digital asset if available, which a POSITA would have understood to include updated versions of each digital asset. *Id*.

Taking Patent Owner's view that at least software updates and gaming updates are comprised within "data updates" as argued in its infringement contentions, Chang expressly discloses these same updates. Ex. 1003, ¶¶97-98; Ex. 1008 at 44-

48; Ex. 1004, 11:35-44, 14:52-60, 4:53-58 (digital assets can include "various *application programs* ('*applications*') that can be provided for electronic devices (e.g., productivity products, *games*, *computer applications* for computing devices)." (*emphasis added*)).

Therefore, Chang expressly discloses an update sequence for digital assets, where digital assets include updated versions of games and computer applications. *Id*. It would have been obvious to a POSITA that verifying the appropriate version of an application and sending the most recent version when possible would apply to newly purchased digital assets, as well as previously purchased digital assets. Ex. 1003, ¶98. Thus, Chang renders obvious the elements of dependent claim [26].

5. Dependent Claim 27

Chang renders obvious "[t]he method of claim 23, wherein the first network and the second network comprise at least one of the following: the first network is a Third Generation Mobile (3G) network and the second network is an Enhanced Data Rates for Global Evolution (EDGE) network, the first network is a Fourth Generation Mobile (4G) network and the second network is an Enhanced Data Rates for Global Evolution (EDGE) network, the first network is a Long Term Evolution (LTE) network and the second network is an Enhanced Data Rates for Global Evolution (EDGE) network, the first network is an Evolution-Data Optimized (EV-DO) network and the second network is a Code Division Multiple Access (CDMA)

network, the first network is a Fourth Generation Mobile (4G) network and the second network is a Third Generation Mobile (3G) network, the first network is a data network and the second network is a voice network, or the first network is a data network and the second network is a mixed voice and data network." Ex. 1003, ¶¶99-103.

On its face, dependent claim [27] faces significant issues based on the identified first and second network pairs, because independent claim [23] from which claim [27] depends requires the second network to be "more capable" than the first network.[2] Ex. 1001, cls. 23, 27; Ex. 1003, ¶100. The specification identically lists the network pairs disclosed in dependent claim [27], with the difference being that the network pairs are flipped, such that the more capable network is listed first in the specification, rather than second as in the claim language. *Compare* Ex. 1001, cl. 27 with Ex. 1001, 9:9-46; Ex. 1003, ¶100. For example, the specification in its first example discusses "the more capable network may be a Third Generation

[2] Petitioners take no position on § 112 issues with this claim. However, because the asserted art falls within the scope of this limitation without implicating the outer boundaries, it is unnecessary for the Board to determine whether the full scope of the claims are definite. *See, e.g.*, *Mylan Pharms. Inc. v. Horizon Pharma USA*, IPR2017-01995, Paper 72 at 5-6 (Mar. 28, 2019)..

Mobile (3G) network and the less capable network may be an Enhanced Data Rates for Global Evolution (EDGE) network." Ex. 1001, 9:16-19; Ex. 1003, ¶100. Whereas claim 27 in its first network pair requires the first (less capable) network to be 3G while requiring the second (more capable) network to be an EDGE network. Ex. 1001, cl. 27; Ex. 1003, ¶100.

Despite these deficiencies, in the district court case, Patent Owner asserted for dependent claim [27] that "[e]ach Accused Product first network is a data network and the second network is a mixed voice and data network." Ex. 1008 at 49; Ex. 1003, ¶¶102-103. In doing so, Patent Owner identified the same automatic update functionality in Chang discussed above, where automatic updates are limited to only being sent over Wi-Fi, rather than being sent over Wi-Fi or cellular networks. Ex. 1003, ¶¶102-103; *Compare* Ex. 1004, Fig. 9 *with* Ex. 1008 at 49-53.

Patent Owner's Infringement Contentions (Ex. 1008) at 50 (annotated).

Turn On Auto Update in Play Store

Let the Play Store take care of updates automatically so you don't have to worry about it.

1. Open the **Play Store**, and then tap your profile picture.
2. Tap **Settings**, and then tap **Network preferences**.
3. Tap **Auto-update apps**, and then select your desired setting.

Chang (Ex. 1004), Fig. 9 (annotated).

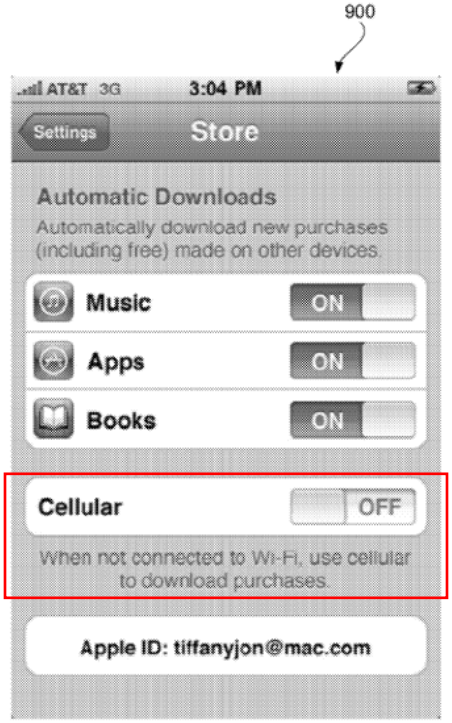


FIG. 9

Because Chang discloses the same example provided by Patent Owner, Chang discloses the claim limitation. From Patent Owner's assertions in the district court, the data network can be a cellular network, and a Wi-Fi network is a mixed voice and data network. Ex. 1003, ¶¶102-103; Ex. 1008 at 49. Chang identically discloses an option "to effectively allow the user to select whether the automatic downloads should take place via a cellular network (which may have a data transfer fee). If the selectable option is set to 'off', then automatic download will only occur when the electronic device is connected to a Wi-Fi connection." Ex. 1004, 13:41-56, Fig. 9; Ex. 1003, ¶¶102-103. Therefore, even under Patent Owner's infringement theory,

Chang identically discloses that the first network can be the mixed voice and data network (cellular) while the second network is the data network (Wi-Fi). Ex. 1003, ¶¶102-103; Ex. 1004, 13:41-56, Fig. 9. Because the infringement contentions made by Patent Owner in the district court litigation are nearly identical to the disclosed Wi-Fi only automatic downloads of Chang, it is obvious that Chang discloses and renders obvious the elements of dependent claim [27] under Patent Owner's infringement theory.

IX. DISCRETIONARY DENIAL

A. *Fintiv*

The six-factor *Fintiv* analysis weighs in favor of the Board declining to exercise discretionary denial. The district court has not indicated it will grant or deny a stay, and so that factor is neutral. Trial is not currently scheduled, although Jury Selection is scheduled for May 5, 2025, approximately a month before the Board's statutory deadline for a final written decision, which given the proximity weighs against denial or is at least neutral. Ex. 1011; *see SMIC Ams. V. Innovative Foundry Techs., LLC*, IPR2020-00786, Paper 10 at 20-21 (Oct. 5, 2020). Moreover, the litigation is at an early stage—Patent Owner only recently served infringement contentions and Petitioners have not yet served invalidity contentions, have produced a minimal amount of documents (indeed, a Protective Order was only entered a little over a month ago), have not deposed any witnesses, and have not

begun claim construction briefing (which does not begin for another eight months). *Id*. In addition, because the Challenged Claims are not asserted in the underlying litigation, there is are no common issues for the Board to resolve. Petitioners were also diligent in filing this Petition less than six months after it was served with the complaint. These factors weigh strongly in favor of not denying. Finally, the strong merits presented herein also weigh in favor of not exercising discretionary denial. Together, the factors weigh in favor of the Board declining to exercise its discretion to deny the petition.

B. 35 U.S.C. §325(d)

The Board should decline to deny institution under §325(d) because the PTO has not previously considered the same or substantially the same prior art and arguments Petitioners present here. The references relied upon in this Petition were neither cited nor considered during prosecution of the ’196 patent, nor are they duplicative of the references cited by the examiner. Thus, the Board should decline to deny institution under the discretionary authority of §325(d).

X. RANKING OF PARALLEL PETITIONS

Petitioners hereby note that, concurrently with this Copycat Petition, Petitioners are filing a second Petition against the ’196 Patent in IPR2024-00318. This Copycat Petition challenges Claims 23-27 of the ’196 Patent using a single ground based on Chang. By contrast, the other Petition challenges Claims 1-5, 7, 8,

10, 12, 14, 17, 18, 20, and 21 using a combination of three other references. Thus, compared to this Petition, the Copycat Petition challenges a different set of claims using different prior art.

Petitioners are filing this Copycat Petition with the intent to move for joinder if IPR2024-00135 is instituted. Although Patent Owner has not asserted Claims 23-27 in the parallel district court litigation against Petitioners, Patent Owner has alleged that Petitioners' products infringe those claims in the litigations against T-Mobile, AT&T and Verizon (the "Carriers"). Petitioners have therefore been identified as Real Parties-in-Interest in IPR2024-00135. By contrast, the Challenged Claims in the other Petition have only been asserted against Petitioners (*i.e.* Samsung).

The Board's Consolidated Practice Guide requests that, for parallel petitions against the same patent, the Petitioner provides "(1) a ranking of the petitions in the order in which it wishes the Board to consider the merits, if the Board uses its discretion to institute any of the petitions, and (2) a succinct explanation of the differences between the petitions, why the issues addressed by the differences are material, and why the Board should exercise its discretion to institute additional petitions if it identifies one petition that satisfies petitioner's burden under 35 U.S.C. § 314(a)." Consolidated Trial Practice Guide at 60.

Ranking. Petitioners provide the following ranking of the Petitions in the order it wishes the Board to consider the merits: (1) the other Petition (IPR2024-00318), (2) this Copycat Petition (IPR2024-00317).

Explanation. The differences between the two Petitions are reflected in the below table.

Ground	Reference(s)	Basis	Claims
This Copycat Petition (IPR2024-00317)			
1	Chang	§103	23-27
Other Petition (IPR2024-00318)			
1	Chitrapu	§103	1-5, 7, 10, 12, 14, 17, 18, 20, 21
2	Chitrapu, Wong	§103	1-5, 7, 8, 10, 12, 14, 17, 18, 20, 21
3	Dinan, Wong	§103	1-5, 8, 10, 12, 14, 17, 20

The differences between the two Petitions are material. The Challenged Claims in this Copycat Petition are materially different than the Challenged Claims in the other Petition. Claims 23-27 challenged in this Copycat Petition are directed to a user device deferring device updates until it is on a more capable network. By contrast, the Challenged Claims in the other Petition are directed to a wireless base station cycling through wide and narrow beam coverage patterns to provide continuous use service or interval use service to devices. As a result, the prior art is

materially different, and the issues for the Board to consider are materially different between the two Petitions.

In addition, if the Board institutes IPR2024-00135, instituting this Copycat Petition and granting Petitioners' to-be-filed motion for joinder (or consolidating the proceedings) will not require the expenditure of any additional Board resources.

XI. MANDATORY NOTICES AND FEES

A. Real Party-In-Interest

The real parties-in-interest for Petitioners are Samsung Electronics America, Inc and Samsung Electronics Co., Ltd. Out of an abundance of caution and to avoid additional issues associated with real parties-in-interest, Petitioners likewise identify T-Mobile USA, Inc., AT&T Services Inc., AT&T Corp., AT&T Mobility LLC, and Cellco Partnership d/b/a Verizon Wireless because Petitioners' products are accused of infringement in their respective patent infringement actions.

B. Related Matters

Cobblestone Wireless, LLC v. T-Mobile USA, et al., No. 2:22-cv-00477 (E.D. Tex.) filed December 16, 2022

Cobblestone Wireless, LLC v. Verizon Communications Inc., et al., No. 2:22-cv-00478 (E.D. Tex.) filed December 16, 2022

Cobblestone Wireless, LLC v. AT&T Inc. et al., No. 2:22-cv-00474 (E.D. Tex.) filed December 15, 2022

Cobblestone Wireless, LLC v. Samsung Electronics Co., Ltd. et al., No. 2:23-cv-00285 (E.D. Texas) filed June 16, 2023

T-Mobile USA, Inc. et al. v. Cobblestone Wireless, LLC, IPR2024-00135 (PTAB)

Samsung Electronics America, Inc. et al. v. Cobblestone Wireless LLC, IPR2024-00318 (PTAB)

C. Counsel and Service Information

Petitioners provide the following counsel and service information. Petitioners consent to electronic service the email addresses listed in the table below. Pursuant to 37 C.F.R. § 42.10(b), a Power of Attorney accompanies this Petition.

LEAD COUNSEL	BACK-UP COUNSEL
James M. Glass (Reg. No. 46729) jimglass@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 51 Madison Avenue, 22nd Floor New York, NY 10010 Tel: (212) 849-7000 Fax: (212) 849-7100	Quincy Lu (Reg. No. 76,954) quincylu@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 1109 First Avenue, Suite 210 Seattle, WA 98101 Tel: (206) 905-7000 Fax: (206) 905-7100 Jason Williams (*pro hac vice* forthcoming) jasonwiliams@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 51 Madison Avenue, 22nd Floor New York, NY 10010 Tel: (212) 849-7000 Fax: (212) 849-7100

D. Payment of Fees

The undersigned authorizes the Office to charge the fee required for this Petition for *Inter Partes* Review to Deposit Account No. 50-5708. Any additional fees that might be due are also authorized.

XII. CONCLUSION

Petitioners request institution of an IPR and cancellation of the Challenged Claims.

Date: December 18, 2023

Respectfully submitted,

By: /s/ *James M. Glass*
James M. Glass

Counsel for Petitioners

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION, TYPEFACE REQUIREMENTS, AND TYPE STYLE REQUIREMENTS

1. This Petition complies with the type-volume limitation of 14,000 words, comprising 7,523 words, as counted using the Microsoft Word software that was used to prepare this paper, excluding the parts exempted by 37 C.F.R. § 42.24(a).

2. This Petition complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman.

Date: December 18, 2023

By: */s/ James M. Glass*

James M. Glass
QUINN EMANUEL URQUHART
& SULLIVAN, LLP
51 Madison Avenue, 22nd Floor
New York, NY 10010
Tel: (212) 849-7000
Fax: (212) 849-7100

Counsel for Petitioners

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on December 18, 2023, true and correct copies of the foregoing document and supporting materials were served in its entirety on the Patent Owner at the following address of record as listed on PAIR via Priority Mail Express® or Express Mail:

BRUNDIDGE & STANGER, P.C.
1925 BALLENGER AVENUE, STE. 560
ALEXANDRIA VA 22314
UNITED STATES
Official Correspondence Address

Courtesy copies were also sent via electronic mail to Patent Owner's counsel of record in the related district court proceeding

Reza Mirzaie rmirzaie@raklaw.com
Marc A. Fenster mfenster@raklaw.com
Neil A. Rubin nrubin@raklaw.com
Christian W. Conkle cconkle@raklaw.com
Jonathan Ma jma@raklaw.com
Amy E. Hayden, ahayden@raklaw.com

Date: December 18, 2023

By: */s/ James M. Glass*
James Glass
QUINN EMANUEL URQUHART
& SULLIVAN, LLP
51 Madison Avenue, 22nd Floor
New York, NY 10010
Tel: (212) 849-7000
Fax: (212) 849-7100

Counsel for Petitioners