

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

COBBLESTONE WIRELESS, LLC,	§	
Plaintiff,	§	
	§	
v.	§	
T-MOBILE USA, INC.	§	CASE NO. 2:22-cv-00477-JRG-RSP
	§	(Lead Case)
Defendant,	§	
	§	JURY TRIAL DEMANDED
NOKIA OF AMERICA CORPORATION,	§	
ERICSSON, INC.	§	
	§	
Intervenors.	§	

COBBLESTONE WIRELESS, LLC,	§	
Plaintiff,	§	
	§	
v.	§	
AT&T SERVICES INC.; AT&T	§	CASE NO. 2:22-cv-00474-JRG-RSP
MOBILITY LLC; AT&T CORP.,	§	(Member Case)
	§	
Defendants,	§	JURY TRIAL DEMANDED
	§	
NOKIA OF AMERICA CORPORATION,	§	
ERICSSON, INC.	§	
	§	
Intervenors.	§	

COBBLESTONE WIRELESS, LLC,	§	
Plaintiff,	§	
	§	
v.	§	
CELLCO PARTNERSHIP d/b/a	§	CASE NO. 2:22-cv-00478-JRG-RSP
VERIZON WIRELESS,	§	(Member Case)
	§	
Defendant,	§	JURY TRIAL DEMANDED
	§	
NOKIA OF AMERICA CORPORATION,	§	
ERICSSON, INC.	§	
	§	
Intervenors.	§	

DEFENDANTS' AND INTERVENORS' PRELIMINARY INVALIDITY CONTENTIONS
REGARDING U.S. PATENT NO. 8,554,196

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, Defendants AT&T Services Inc., AT&T Mobility LLC, and AT&T Corp. (“AT&T”), Cellco Partnership d/b/a Verizon Wireless (“Verizon”), and T-Mobile USA, Inc. (“T-Mobile”) (collectively, “Defendants”) and Intervenor Nokia of America Corporation (“Nokia” or “Intervenor”) and Ericsson Inc. (“Ericsson” or “Intervenor”), hereby provide their Preliminary Invalidity Contentions with respect to the claims identified by Plaintiff Cobblestone (“Plaintiff”) in its previously served Infringement Contentions in the above captioned matters (“Infringement Contentions”).

I. PRELIMINARY STATEMENT AND RESERVATION OF RIGHTS

A. ASSERTED CLAIMS

According to the Infringement Contentions regarding U.S. Patent No. 8,554,196, Plaintiff asserts the following claims, and priority dates in its Infringement Contentions.

Asserted Patent	Asserted Claims	Asserted Priority Date
U.S. Patent No. 8,554,196 (the 196 Patent).	23-27	August 24, 2011

Defendants and Intervenor contend that each of the Asserted Claims is invalid under at least one or more of 35 U.S.C. §§ 102, 013, or 112.¹ Pursuant to the Patent Rules, Defendants and Intervenor do not provide any contentions regarding any claims not asserted by Plaintiff. To the extent that the Court permits Plaintiff to assert additional claims against Defendants and/or Intervenor in the future, Defendants and Intervenor reserve all rights to amend or supplement these Preliminary Invalidity Contentions or to otherwise disclose new or supplemental invalidity

¹ Intervenor’s contentions are only for those claims of the patents specifically asserted against its equipment.

contentions regarding such claims. Furthermore, because discovery is ongoing,² Defendants and Intervenor reserve the right to revise, amend, and/or supplement the information provided herein, including identifying, charting, and relying on additional references, should discovery yield additional information or references. Defendants and Intervenor further reserve the right to amend these contentions in response to any claim construction rulings, as permitted by the Patent Rules or with permission of the Court.

The Infringement Contentions are deficient in multiple respects and do not provide Defendants and Intervenor with sufficient information to understand the specific accused features and components and the alleged factual and evidentiary bases for Plaintiff's infringement allegations. Among other things, the Infringement Contentions lack the specificity required by P. R. 3-1, fail to properly identify accused instrumentalities, and fail to explain adequately Plaintiff's infringement theories for numerous claim elements. Plaintiff has prejudiced Defendants' and Intervenor's ability to understand, for purposes of preparing these Preliminary Invalidity Contentions, what Plaintiff alleges to be the scope of the Asserted Claims. If Plaintiff modifies any assertion or contention in its Infringement Contentions, or presents any new assertion or contention relevant to these Preliminary Invalidity Contentions to the extent allowed by the Patent

² Defendants' and Intervenor's ongoing efforts include but are not limited to: serving subpoenas on prior artists and inventors regarding prior art, seeking additional information related to the references and systems disclosed in these Preliminary Invalidity Contentions, and seeking additional information related to available prior art systems, as well as Plaintiff's Infringement Contentions and the products accused of infringing therein. In addition, Defendants and Intervenor have not yet had the benefit of taking the deposition of any of the named inventors or those that worked with the named inventors, or of the named inventors, authors, and entities listed on any references or systems identified in these Preliminary Invalidity Contentions. Further, should Plaintiff or any third party identify or produce any further prior art, Defendants and Intervenor reserve the right to review and supplement these Preliminary Invalidity Contentions with any such art.

Rules or the Court, Defendants and Intervenor reserve the right to supplement or otherwise amend these initial Invalidity Contentions.

B. PRIORITY DATE OF THE ASSERTED PATENT

Plaintiff's Infringement Contentions contain allegations regarding the priority date to which Plaintiff alleges it is entitled for each of the Asserted Claims. See 3/13/2023 Infringement Contentions at 4. Defendants and Intervenor do not agree that Plaintiff is entitled to the alleged priority dates for each of the Asserted Claims.

Any reference to an "asserted priority date" in these Preliminary Invalidity Contentions refers to the priority dates identified in Plaintiff's Infringement Contentions. Reference to a "priority date" or an "asserted priority date" should not be construed to mean that Defendants and Intervenor agree that the 196 Patent is in fact entitled to such priority date, or that Plaintiff has provided proper notice as to its contentions for a priority date. To the extent Plaintiff alleges that any prior art relied on in these Preliminary Invalidity Contentions does not actually qualify as prior art to an Asserted Patent, Defendants and Intervenor reserve the right to rebut those allegations (*e.g.*, by demonstrating an earlier critical date for the challenged prior art and/or a later priority date for a particular Asserted Patent and/or Asserted Claim).³ Likewise, to the extent Plaintiff successfully establishes an invention date before any of the prior-art references relied on by Defendants and Intervenor, then those references serve as evidence secondary considerations of obviousness, particularly, contemporaneous invention by others.

³ Defendants and Intervenor reserve the right to rely on additional documents and evidence to rebut any efforts by Plaintiff to allege any reference was not publicly available or otherwise available as prior art.

C. CLAIM CONSTRUCTION

Because the Court has not yet construed any terms of the Asserted Claims, Defendants' and Intervenor's Preliminary Invalidity Contentions are based on (1) Defendants' and Intervenor's present understanding of the Asserted Claims, and (2) the claim constructions Plaintiff appears to be proposing based on the Infringement Contentions, all without regard to whether Defendants and Intervenor agree with Plaintiff's apparent or expressed claim constructions. Defendants and Intervenor reserve the right to supplement or otherwise amend these Preliminary Invalidity Contentions in response to any proposed claim constructions or alleged supporting evidence offered by Plaintiff, any report from any expert witness for Plaintiff regarding claim construction issues, any claim construction briefing filed by Plaintiff, and any position taken by Plaintiff concerning claim construction, infringement, or invalidity.

Defendants and Intervenor take no position on any matter of claim construction in these Preliminary Invalidity Contentions. If Defendants' and Intervenor's apparent claim constructions herein are consistent with any explicit, apparent, or implied claim constructions in the Infringement Contentions, no inference is intended and no inference should be drawn that Defendants and Intervenor agree with any of Plaintiff's claim constructions. Any statement herein describing or tending to describe any claim element is provided solely for the purpose of understanding and/or applying the cited prior art. Defendants and Intervenor expressly reserve the right (1) to propose any claim construction Defendants and Intervenor consider appropriate, (2) to contest any claim construction proposed by Plaintiff that Defendants and Intervenor consider inappropriate or inaccurate, and/or (3) to take positions with respect to claim construction issues that are inconsistent with, or even contradictory to, claim construction positions expressed or implied in these Preliminary Invalidity Contentions.

Prior art not included in these Preliminary Invalidity Contentions, whether now known to Defendants and Intervenor, might become relevant depending on the claim constructions proposed by Defendants and Intervenor and/or the Court's claim construction rulings. Defendants and Intervenor reserve all rights to supplement or modify the positions and information in these Preliminary Invalidity Contentions, including without limitation the prior art and grounds of invalidity set forth herein, pursuant to P.R. 3-6 after the Court has construed the asserted claims.

D. ONGOING DISCOVERY AND SUPPLEMENTATION

Defendants' and Intervenor's investigation, including its investigation of prior art and grounds for invalidity, is ongoing. Furthermore, Defendants' and Intervenor's invalidity positions will be the subject of expert testimony. Defendants and Intervenor base these Preliminary Invalidity Contentions on their current knowledge and understanding of the Asserted Claims, Plaintiff's Infringement Contentions, the prior art, and other facts and information available as of the date of these contentions. Defendants and Intervenor reserve the right to supplement these Preliminary Invalidity Contentions, including, without limitation, by adding additional prior art and grounds of invalidity in accordance with the Federal Rules of Civil Procedure, the Local Rules, the local Patent Rules, the Docket Control Order, any Order issued by this Court, or otherwise.

E. PRIOR ART IDENTIFICATION AND CITATIONS THERETO

In these Preliminary Invalidity Contentions, Defendants and Intervenor identify specific portions of prior art references that disclose the elements of each of the Asserted Claims. While Defendants and Intervenor have identified exemplary prior art references for each element, they do not necessarily identify every disclosure of the same element in each prior art reference. A person of ordinary skill in the art would read a prior art reference as a whole and in the context of other publications, literature, and general knowledge in the field and would rely upon other information including other publications and general scientific or engineering knowledge.

Defendants and Intervenor reserve the right to rely upon other unidentified portions of the prior art references and on other publications and prior art products and expert testimony to provide context and to aid understanding and interpretation of the identified portions of the prior art.

Defendants and Intervenor also reserve the right to rely upon (1) other portions of the cited prior art references, other publications, prior art products, and the testimony of experts to establish that the alleged inventions would have been obvious to a person of ordinary skill in the art, including on the basis of modifying or combining certain cited references; (2) admissions relating to prior art in the 196 Patent or related patents, the prosecution history of the 196 Patent or related patents, or other admissions obtained during discovery; and (3) foreign counterparts of any U.S. patents identified in Defendants' Preliminary Invalidity Contentions.

Where Defendants and Intervenor identify a particular figure in a prior art reference, the identification should be understood to encompass the caption and description of the figure as well as any text relating to the figure in the remainder of the prior art reference (e.g., if a patent reference, in the specification and prosecution history). Similarly, where an identified portion of text refers to a figure or other material, the identification of the text should be understood to include the referenced figure or other material.

F. INVALIDITY, UNENFORCEABILITY AND/OR INELIGIBILITY BASED ON NON-REQUIRED DISCLOSURE(S)

Defendants and Intervenor reserve the right to prove the invalidity, unenforceability and/or ineligibility of one or more of each of the Asserted Claims on bases other than those required by P.R. 3-3 to be disclosed in these disclosures.

G. INVALIDITY UNDER SECTION 102(F) PRIOR ART

Defendants and Intervenor reserve the right to assert that the Asserted Claims of the 196 Patent are invalid under 35 U.S.C. § 102(f) in the event they obtain evidence that the applicants named on the 196 Patent or related patents, did not themselves “invent” the subject matter claimed. Should Defendants and Intervenor obtain such evidence, they will provide the name of the person(s) from whom and the circumstances under which the claimed subject matter or any part of it was derived.

H. INVALIDITY UNDER 102(G)

The 196 patent is likewise invalid under 102(g) because the claims of the 196 patent were made in this country by another inventor who had not abandoned, suppressed, or concealed it. 35 U.S.C. § 102(g). For example, under 102(g), the asserted claims are invalid because at least the iPhone , iPhone 3G, iPhone 3Gs, iPhone 4, Samsung Galaxy S, HTC Desire, BlackBerry Bold 9700, BlackBerry Curve 9360, Nokia N8, Motorola Droid X, Motorola Droid Pro, Sony Ericsson Xperia X10, LG Optimus One, HTC Evo 4G, Samsung Focus 3G, Samsung Galaxy Ace, and Samsung Wave S8500 were made before the priority date of the 196 patent. As will be shown by the exemplary evidence listed in Exhibit D-10, each and every element of those asserted claims is invalid under 102(g).

I. NO PATENTABLE WEIGHT

Defendants and Intervenor reserve the right to argue that various portions of each of the Asserted Claims, such as an intended use or result, non-functional descriptive material, and certain preamble language, are entitled to no patentable weight. Mapping of a portion of an Asserted Claim to a prior art reference does not represent that such portion of the claim is entitled to patentable weight when comparing the claimed subject matter to the prior art.

II. INVALIDITY CONTENTIONS

As explained herein and in Exhibits D1 through D11, and Appendix D1, Defendants and Intervenor contend that each of the Asserted Claims are invalid under 35 U.S.C. §§ 101, 102, 103, and/or 112.

A. P.R. 3-3(A) – IDENTIFICATION OF PRIOR ART

Pursuant to P. R. 3-3(a), and subject to Defendants’ and Intervenor’s reservation of rights as stated herein, Defendants and Intervenor identify the prior art that anticipates or renders obvious the Asserted Claims in the tables set forth below.⁴ On information and belief, each listed reference qualifies as prior art to the 196 Patent.⁵

To the extent that any of the following are prior art, Defendants and Intervenor reserve the right to rely upon foreign counterparts of the U.S. patents identified herein; U.S. counterparts of foreign patents and foreign patent applications identified herein; and U.S. and foreign patents and patent applications corresponding to articles and publications identified herein. Defendants and Intervenor also reserve the right to rely upon parent or ancestor patents or patent applications from which any of the patents or patent applications identified herein claim priority to as continuation, divisional, or continuation-in-part applications.

1. *Identification Of Prior Art Patents*

Patent/Publication No.	Country of Origin	Date of Issue/Publication
U.S. Patent No. 8,971,841 to Menezes et al. (“Menezes”)	U.S.	March 3, 2015

⁴ Defendants and Intervenor also hereby identify any systems or products that embody the technology described in any patent or publication identified in these Preliminary Invalidity Contentions. Defendants and Intervenor reserve the right to rely on any documents or other evidence regarding any such systems.

⁵ Defendants and Intervenor may rely on any document produced with the prefix “JD-COBB_” to explain the background and/or state of the art to the 196 Patent.

Patent/Publication No.	Country of Origin	Date of Issue/Publication
U.S. Patent No. 9,830,642 to Chang et al. (“Chang”)	U.S.	November 28, 2017
U.S. Patent No. 8,752,044 to Motta et al. (“Motta”)	U.S.	June 10, 2014
U.S. Patent No. 9,600,261 to Mandyam et al. (“Mandyam”)	U.S.	March 21, 2017
U.S. Patent No. 9,179,319 to Gore et al. (“Gore”)	U.S.	November 3, 2015
U.S. Patent No. 6,996,418 to Teo et al. (“Teo”)	U.S.	February 7, 2006
U.S. Patent No. 9,143,552 to Bonner et al. (“Bonner”)	U.S.	September 22, 2015
U.S. Patent No. 10,079,912 to Boudreau et al. (“Boudreau”)	U.S.	September 18, 2018
United Kingdom Patent No. 201,016,415 to Samsung Electronics Co Ltd. (“Samsung”)	U.K.	February 27, 2013
U.S. Patent No. 7,684,802 to Jalali (“Jalali”)	U.S.	March 23, 2010
U.S. Patent Application Publication No. 2008/0010372 to Khedouri et al. (“Khedouri”)	U.S.	Jan 10, 2008
U.S. Patent No. 8,169,933 to Srinivasan et al. (“Srinivasan”)	U.S.	May 1, 2012
Japanese Patent Application 2010-128844 to Koishikawa (“Koishikawa”)	Japan	June 10, 2010
Canadian Patent No. 2,693,711 to Madej et al. (“Madej”)	Canada	August 27, 2010
World Intellectual Property Organization International Application No. 2008/094579 to Bianconi et al. (“Bianconi”)	U.S.	August 7, 2008
Provisional application No . 61/451,057 to Chang (“Chang Prov.”)	U.S.	March 9, 2011
U.S. Patent Application No. 2012/0215890 to Doyle et al. (“Doyle”)	U.S.	August 23, 2012
U.S. Patent 8,433,310 to Kalke et al. (“Kalke”)	U.S.	April 30, 2013
U.S. Patent Application No. US 2008/0160983 to Poplett et al. (“Poplett”)	U.S.	July 3, 2008

Patent/Publication No.	Country of Origin	Date of Issue/Publication
U.S. Patent Application No. US 2009/0170537 to Mauti (“Mauti”)	U.S.	July 2, 2009

2. Identification Of Prior Art Publications

Title, Author(s), and Publisher	Date of Publication
<i>Wireless Communications</i> , Theodore S. Rappaport (2002) (“Rappaport”).	2002
LTE: The UMTS Long Term Evolution From Theory to Practice by Sesia et al. (“Sesia”)	July 22, 2011
LTE for UMTS OFDMA and SC-FDMA Based Radio Access by Holma & Toskala (“Holma & Toskala (2009)”)	2009
UMTS Networks Architecture, Mobility, and Services by Kaaranen et al. (“Kaaranen”)	2001
WCDMA for UMTS by Holma and Toskala (“Holma & Toskala (2004)”)	2004
LTE for UMTS: Evolution to LTE-Advanced Second Edition (“Holma & Toskala (2011)”)	March 2011
4G LTE/LTE-Advanced for Mobile Broadband by Dahlman and Parkvall (“Dahlman and Parkvall”)	March 20, 2011
LTE-Advanced: A Practical Systems Approach to Understanding 3GPP LTE Releases 10 and 11 Radio Access technologies by Ahmadi (“Ahmadi”)	October 13, 2010
An Introduction to GSM by Redl (“Redl”)	1995
iPhone User Guide	At least by June 29, 2007
Auto Update, n.a., AVC.com (https://avc.com/2010/11/auto-update/)	November 11, 2010
iPhone 3G User Guide	July 11, 2008
iPhone 3S User Guide	At least by July 11, 2008

Title, Author(s), and Publisher	Date of Publication
iPhone 4 User Guide	At least by June 19, 2009
iPhone 4S User Guide	At least by June 24, 2010
iPhone iOS 3.1 User Guide	September 9, 2009
iPhone iOS 4.2 and 4.3 User Guide	March 9, 2011
Droidwall Source Code Version 1.0 (http://web.archive.org/web/20110103025238/http://droidwall.googlecode.com:80/svn/trunk/src/com/googlecode/droidwall/Api.java)	At least as of January 3, 2011
Android 2.3.4 User Guide	May 20, 2011

3. *Identification Of Prior Art Sales/Public Uses*

Item Offered for Sale and/or Publicly Used	Date of Offer/Public Use	Person or Entity Who Made and Received Offer, Made Public Use, or Made Information Known
UE's implementing iOS versions 1 through 5	Prior to August 2011	Apple
UE's implementing OMA standards	Prior to August 2011	Ericsson, ZTE, Nokia, and others to be determined during discovery
UE's implementing Android versions 2.3.5 and earlier	Prior to August 2011	Samsung, Motorola, HTC, and others to be determined during discovery
UE's implementing BlackBerry OS 7.1 and earlier	Prior to August 2011	BlackBerry, Research-in-Motion

Item Offered for Sale and/or Publicly Used	Date of Offer/Public Use	Person or Entity Who Made and Received Offer, Made Public Use, or Made Information Known
UE's implementing Symbian Belle and earlier	Prior to August 2011	Nokia and others to be determined during discovery
UE's implementing Windows Phone 7.5 and earlier	Prior to August 2011	Microsoft, Samsung, and others to be determined during discovery
Mobile Applications allowing the control of updates to certain networks, such as DroidWall 1.5.2, and earlier, NYTimes App prior to August 2011, Amazon Music App prior to August 2011, SlingPlayer App prior to August 2011	Prior to August 2011	DroidWall, New York Times, Amazon, SlingPlayer, and others to be determined during discovery
All systems or products that embody the technology described in any patent or publication identified in these Preliminary Invalidity Contentions.		

B. P.R. 3-3(B) – ANTICIPATION AND OBVIOUSNESS

Pursuant to P.R. 3-3 (b), and subject to Defendants' and Intervenor's reservation of rights, Defendants and Intervenor attach claim charts hereto that are directed to the prior art references that anticipate each of the Asserted Claims under 35 U.S.C. §§ 102(a), (b), (e), and/or (g), either expressly or inherently, and/or the prior art references that, in the alternative, would have rendered the Asserted Claims obvious under 35 U.S.C. § 103. *See* Exs. D1 through D11 and Appendix D1. Some claim charts also contain explanations about the motivation to combine the references. Any combinations contained or referenced in Defendants' and Intervenor's claim charts are exemplary.

Any prior art reference cited herein may be combined with any other reference to demonstrate the invalidity of any of the Asserted Claims, as set forth below and in Appendix D1.

To the extent any claim limitation is construed to have a similar meaning, or to encompass similar feature(s) and/or function(s), as any other claim limitation, the citations to prior art references for each of those claim limitations in Defendants' and Intervenor's claim charts are incorporated by reference with respect to each other.

Defendants' and Intervenor's claim charts provide exemplary citations to the prior art references that teach or suggest every element of the Asserted Claims. To the extent that an element of an Asserted Claim is not shown in a chart, the Asserted Claims would have been obvious based on a combination of one or more other prior art references, as set forth below and in Appendix D1.

Much of the art cited in these Preliminary Invalidity Contentions reflects common knowledge and the state of the art at the time of the earliest filing date of the 196 Patent. Defendants and Intervenor may rely on additional citations, references, expert testimony, and other material to provide context or to aid in understanding the cited portions of the references and/or cited features of the systems. Defendants and Intervenor also may rely on expert testimony explaining relevant portions of references, relevant hardware or software products or systems, and other discovery regarding these subject matters. Additionally, Defendants and Intervenor may rely on other portions of any prior art reference for purposes of explaining the background and general technical subject area of the reference.

Where an individual reference is cited with respect to all elements of an Asserted Claim, Defendants contend that the reference anticipates the claim under 35 U.S.C. §§ 102(a), (b), (e), and/or (g) and also renders obvious the claim under 35 U.S.C. § 103, both by itself in view of the

knowledge of a person of ordinary skill in the art and in combination with the other cited references to the extent the reference is not found to disclose one or more claim elements. A single prior art reference, for example, can establish obviousness where the differences between the disclosures within the reference and the claimed invention would have been obvious to one of ordinary skill in the art. For example, “[c]ombining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness.” *Bos. Sci. Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009). To the extent Plaintiff contends that an embodiment within a particular item of prior art does not fully disclose all limitations of a claim, Defendants and Intervenor accordingly reserve their rights to rely on other embodiments in that prior art reference, or other information, to show single reference obviousness under 35 U.S.C. § 103(a).

Where an individual reference is cited with respect to fewer than all elements of an Asserted Claim, Defendants and Intervenor contend that the reference renders obvious the claim under 35 U.S.C. § 103(a) in view of each other reference and combination of references that discloses the remaining claim element(s), as indicated in the claim charts submitted herewith. “Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17 (1966)).

Exemplary motivations to combine references are discussed below and in some instances within the accompanying charts. Defendants and Intervenor reserve the right to rely upon any references or assertions identified herein in connection with Defendants’ and Intervenor’s contentions that each Asserted Claim is invalid under 35 U.S.C. § 103 and to rely upon expert

testimony addressing such references and assertions. The fact that prior art is identified to anticipate the Asserted Claims presents no obstacle in also relying on that reference as a basis for invalidity based on obviousness. It is established that “a rejection for obviousness under § 103 can be based on a reference which happens to anticipate the claimed subject matter.” *In re Meyer*, 599 F.2d 1026, 1031 (C.C.P.A. 1979). To the extent any cited prior art item may not fully disclose a limitation of an Asserted Claim or is alleged by Plaintiff to lack disclosure of the limitation, such limitation is present and identified in another prior art item as shown in the attached claim charts.

Many of the cited references cite or relate to additional references and/or products, services, or projects. Many of the cited references also cite software, hardware, or systems. Defendants and Intervenor might rely upon such cited additional references and/or products and copies or exemplars of such software, hardware, or systems. Defendants and Intervenor will produce or make available for inspection any such cited references, products, software, hardware, or systems that it intends to rely upon. Defendants and Intervenor may also rely upon the disclosures of the references cited and/or discussed during the prosecution of the 196 Patent and/or the assertions presented regarding those references.

Defendants and Intervenor reserve the right to further streamline and reduce the number of anticipation or obviousness references relied upon with respect to a given Asserted Claim and to exchange or otherwise modify the specific references relied upon for anticipation and within each obviousness combination for each Asserted Claim.

C. P.R. 3-3(C) – CLAIM CHARTS

Defendants and Intervenor attach the following claim charts pursuant to P.R. 3-3(c):

- Ex. D1: 196 Patent over U.S. Patent No. 9,830,642 to Chang et al. (“Chang”)
- Ex. D2: 196 Patent over U.S. Patent Application No. US 2012/0215890 to Doyle et al. (“Doyle”)

- Ex. D3: 196 Patent over U.S. Patent US 8,433,310 to Kalke et al. (“Kalke”)
- Ex. D4: 196 Patent over U.S. Patent Application No. US 2012/0157038 to Menezes et al. (“Menezes”)
- Ex. D5: 196 Patent over U.S. Patent Application No. US 2008/0028395 to Motta et al. (“Motta”)
- Ex. D6: 196 Patent over User Equipment running DroidWall versions 1.5.2 and earlier
- Ex. D7: 196 Patent over U.S. Patent Application No. US 2009/0249321 to Mandyam et al. (“Mandyam”)
- Ex. D8: 196 Patent over User Equipment running iOS versions 1-5 (including beta versions)
- Ex. D9: 196 Patent over U.S. Patent Application No. US 2006/0286974 to Gore et al. (“Gore”)
- Ex. D10: 196 Patent over User Equipment running Android versions 2.3.5 and earlier (including beta versions), BlackBerry OS 7.1 and earlier (including beta versions), Symbian Belle and earlier (including beta versions), and Windows Phone 7.5 and earlier (including beta versions)
- Ex. D11: 196 Patent over User Equipment running the April 16, 2009 version of the NYTimes App on iOS

The attached claim charts are based, in whole or in part, on Plaintiff’s asserted theories of infringement in this case, to the extent discernible from Plaintiff’s Infringement Contentions. As an initial matter, all portions of each prior art reference cited in each of the attached claim charts are relied upon to support the disclosure of each patent claim limitation, as all portions provide general support. Representative descriptions and supporting citations are nevertheless provided, but are merely exemplary; they do not necessarily reflect every instance where a particular claim term or claim limitation may be disclosed in or taught by the prior art reference. References to figures or drawings refer to the figures/drawings themselves, as well as to any accompanying text or text necessary to understand the figures or drawings. References to text refers to the text itself, as well as the accompanying figures or drawings that accompany the text. Defendants and

Intervenors reserve the right to rely on additional, or different, portions of the prior art references, other publications and expert testimony to establish what these references would have taught one of ordinary skill in the art, or in what manner they would have motivated a particular combination of references. Moreover, in certain instances, representative documents for certain prior art systems are cited, but, again, are merely exemplary; they do not necessarily reflect or include every document relating to the prior art system that exists and that discloses or teaches a particular claim term or claim limitation. Defendants and Intervenors reserve the right to rely on any and all documents that describe or relate to prior art systems, including relying on the system itself. Defendants and Intervenors also reserve the right to rely on the testimony of the authors, named inventors, or anyone else with knowledge of the prior art references and systems identified herein, as well as expert testimony regarding any such references or systems.

D. OBVIOUSNESS AND MOTIVATION TO COMBINE

The primary references identified above, and as further described in Exhibits D1 through D11, each discloses, either expressly or inherently, every element of each of the Asserted Claims, thereby anticipating those claims. To the extent Plaintiff contends that any primary reference does not anticipate each of the Asserted Claims, it would have been obvious to combine or modify the primary references with concepts from other prior art, as explained herein and in the following Appendix. Each of these combinations is exemplary and representative, and the below does not constitute an exhaustive list of the possible combinations of the primary references, nor the primary references in combination with any additional references noted in the Appendix. Defendants and Intervenors reserve the right to rely on combinations outside of the below listed.

- Chang in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett
- Doyle in combination with Chang, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett

- Kalke in combination with Doyle, Auto Update, Chang, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett
- Meneze in combination with Doyle, Auto Update, Kalke, Change, Motta, Mandyam, Gore, Mauti, and/or Poplett
- Motta in combination with Doyle, Auto Update, Kalke, Change, Meneze, Mandyam, Gore, Mauti, and/or Poplett
- Mandyam in combination with Doyle, Auto Update, Kalke, Change, Motta, Meneze, Gore, Mauti, and/or Poplett
- Gore in combination with Doyle, Auto Update, Kalke, Change, Motta, Mandyam, Meneze, Mauti, and/or Poplett
- iOS user equipment in combination with Android user equipment, BlackBerry user equipment, Microsoft Phone user equipment, and/or Symbian user equipment
- iOS user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer
- Android user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer
- BlackBerry user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer
- Windows Phone user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer
- Symbian user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer
- Android user equipment in combination with other available mobile applications with wi-fi only data updating settings
- iOS user equipment in combination with other available mobile applications with wi-fi only data updating settings
- BlackBerry user equipment in combination with other available mobile applications with wi-fi only data updating settings
- Symbian user equipment in combination with other available mobile applications with wi-fi only data updating settings
- Windows Phone user equipment in combination with other available mobile applications with wi-fi only data updating settings

- Android user equipment in combination with BlackBerry user equipment, Microsoft Phone user equipment, iOS user equipment, and/or Symbian user equipment
- BlackBerry user equipment in combination with Android user equipment, Microsoft Phone user equipment, iOS user equipment, and/or Symbian user equipment
- Microsoft Phone user equipment in combination with Android user equipment, BlackBerry user equipment, iOS user equipment, and/or Symbian user equipment
- Symbian user equipment in combination with Android user equipment, BlackBerry user equipment, Microsoft Phone user equipment, and/or iOS user equipment
- iOS user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett
- Android user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett
- BlackBerry user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett
- Windows Phone user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett
- Symbian user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett
- DroidWall in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett
- NYTimes App in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett
- iOS user equipment in combination with iPhone User Guide, iPhone 3G User Guide, iPhone 3S User Guide, iPhone 4 User Guide, iPhone 4S User Guide, iPhone iOS 3.1 User Guide, iPhone iOS 4.2 and 4.3 User Guide, and/or Android 2.3.4 User Guide
- Android user equipment in combination with iPhone User Guide, iPhone 3G User Guide, iPhone 3S User Guide, iPhone 4 User Guide, iPhone 4S User Guide, iPhone iOS 3.1 User Guide, iPhone iOS 4.2 and 4.3 User Guide, and/or Android 2.3.4 User Guide

- BlackBerry user equipment in combination with iPhone User Guide, iPhone 3G User Guide, iPhone 3S User Guide, iPhone 4 User Guide, iPhone 4S User Guide, iPhone iOS 3.1 User Guide, iPhone iOS 4.2 and 4.3 User Guide, and/or Android 2.3.4 User Guide
- Windows Phone user equipment in combination with iPhone User Guide, iPhone 3G User Guide, iPhone 3S User Guide, iPhone 4 User Guide, iPhone 4S User Guide, iPhone iOS 3.1 User Guide, iPhone iOS 4.2 and 4.3 User Guide, and/or Android 2.3.4 User Guide
- Symbian user equipment in combination with iPhone User Guide, iPhone 3G User Guide, iPhone 3S User Guide, iPhone 4 User Guide, iPhone 4S User Guide, iPhone iOS 3.1 User Guide, iPhone iOS 4.2 and 4.3 User Guide, and/or Android 2.3.4 User Guide
- Chang in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Doyle in combination with Chang, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Kalke in combination with Doyle, Auto Update, Chang, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Meneze in combination with Doyle, Auto Update, Kalke, Change, Motta, Mandyam, Gore, Mauti, and/or Poplett in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Motta in combination with Doyle, Auto Update, Kalke, Change, Meneze, Mandyam, Gore, Mauti, and/or Poplett in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Mandyam in combination with Doyle, Auto Update, Kalke, Change, Motta, Meneze, Gore, Mauti, and/or Poplett in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Gore in combination with Doyle, Auto Update, Kalke, Change, Motta, Mandyam, Meneze, Mauti, and/or Poplett in further combination with Rappaport, Sesia,

Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl

- Chang in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Doyle in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Kalke in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Meneze in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Motta in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Mandyam in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Gore in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- iOS user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Android user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- BlackBerry user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Windows Phone user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl

- Symbian user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl
- Any of the above, in combination with any reference noted in Appendix D1 (196 Patent Obviousness Combinations)

In particular, for each limitation of each of the Asserted Claims that Plaintiff contends is not met by a particular primary reference, Defendants and Intervenor contend that the limitation (and claim as a whole) is obvious based on a combination of that particular primary reference with (1) any other primary reference disclosing that limitation, (2) any reference identified in Appendix D1 as disclosing that limitation, and/or (3) the knowledge of a person of ordinary skill in the art and/or any of the references and concepts discussed herein regarding the relevant background and state of the art. The specific combinations of prior art that Defendants and Intervenor contend render the Asserted Claims obvious are readily determinable as described herein. Defendants' and Intervenor's obviousness grounds for each dependent claim incorporate the obviousness grounds for the claim(s) from which the dependent claim depends in addition to any obviousness grounds identified in the charts for the dependent claim.

Defendants and Intervenor do not yet have the benefit of Plaintiff's positions on the prior art, including what (if any) elements it contends are missing in each prior art reference, whether Plaintiff agrees that a reference is in fact prior art, and whether Plaintiff agrees that a person of ordinary skill in the art would be motivated to combine specific references. Defendants and Intervenor reserve the right to supplement these obviousness positions (including identifying additional prior art combinations and the associated reasons to combine) as discovery in the case progresses, including expert discovery.

1. *Motivation To Combine*

Each prior art reference may be combined with one or more other prior art references to render obvious each of the Asserted Claims in combination, as explained in more detail below. The disclosures of these references also may be combined with information known to persons skilled in the art at the time of the alleged invention, and understood and supplemented in view of the common sense of persons skilled in the art at the time of the alleged invention, including any statements in the intrinsic record of the 196 Patent and related applications.

A person of ordinary skill would have been motivated to combine the prior art cited in the attached claim charts based on the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. The identified prior art references, including portions cited in the claim charts, address the same or similar technical issues and suggest the same or similar solutions to those issues as the Asserted Claims. On such bases, on an element-by-element basis, Defendants and Intervenor intend to combine one or more prior art references identified in the claim charts attached as Exhibits D1-D11 and/or Appendices D1 with each other to address any contention from Plaintiff that a particular prior art item supposedly lacks one or more elements of an Asserted Claim. In other words, Defendants and Intervenor contend that each charted prior art reference can be combined with other charted prior art references when a particular prior art item lacks or does not explicitly disclose an element or feature of an Asserted Claim. A person of ordinary skill in the art would have been motivated to make such combinations based on, for example, the below. The below list of motivations to combine is exemplary and representative, and is not an exhaustive list of motivations to combine, nor potential combinations.

- A person of ordinary skill in the art would have been motivated to combine Chang in combination with Doyle, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular,

and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices.

- A person of ordinary skill in the art would have been motivated to combine Doyle in combination with Chang, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices.
- A person of ordinary skill in the art would have been motivated to combine Kalke in combination with Doyle, Auto Update, Chang, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices.
- A person of ordinary skill in the art would have been motivated to combine Meneze in combination with Doyle, Auto Update, Kalke, Change, Motta, Mandyam, Gore, Mauti, and/or Poplett because each reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices.

- A person of ordinary skill in the art would have been motivated to combine Motta in combination with Doyle, Auto Update, Kalke, Change, Meneze, Mandyam, Gore, Mauti, and/or Poplett because each reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices.
- A person of ordinary skill in the art would have been motivated to combine Mandyam in combination with Doyle, Auto Update, Kalke, Change, Motta, Meneze, Gore, Mauti, and/or Poplett because each reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices.
- A person of ordinary skill in the art would have been motivated to combine Gore in combination with Doyle, Auto Update, Kalke, Change, Motta, Mandyam, Meneze, Mauti, and/or Poplett because each reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices.
- A person of ordinary skill in the art would have been motivated to combine iOS user equipment in combination with Android user equipment, BlackBerry user equipment, Microsoft Phone user equipment, and/or Symbian user equipment because each of these operating systems were competitors with each other at the time. A person of ordinary skill in the art would have been motivated to look at what the other operating systems had in terms of features to see what features should be combined in order to improve iOS. It was common at the time for each of these main operating systems designed to try to incorporate popular features

and updating over Wi-Fi only was a feature that was desired by users. *See Auto Update.*

- A person of ordinary skill in the art would have been motivated to combine Android user equipment in combination with BlackBerry user equipment, Microsoft Phone user equipment, iOS user equipment, and/or Symbian user equipment because each of these operating systems were competitors with each other at the time. A person of ordinary skill in the art would have been motivated to look at what the other operating systems had in terms of features to see what features should be combined in order to improve Android. It was common at the time for each of these main operating systems designed to try to incorporate popular features and updating over Wi-Fi only was a feature that was desired by users. *See Auto Update.*
- A person of ordinary skill in the art would have been motivated to combine BlackBerry user equipment in combination with Android user equipment, Microsoft Phone user equipment, iOS user equipment, and/or Symbian user equipment because each of these operating systems were competitors with each other at the time. A person of ordinary skill in the art would have been motivated to look at what the other operating systems had in terms of features to see what features should be combined in order to improve BlackBerry. It was common at the time for each of these main operating systems designed to try to incorporate popular features and updating over Wi-Fi only was a feature that was desired by users. *See Auto Update.*
- A person of ordinary skill in the art would have been motivated to combine Microsoft Phone user equipment in combination with Android user equipment, BlackBerry user equipment, iOS user equipment, and/or Symbian user equipment because each of these operating systems were competitors with each other at the time. A person of ordinary skill in the art would have been motivated to look at what the other operating systems had in terms of features to see what features should be combined in order to improve Microsoft Phone. It was common at the time for each of these main operating systems designed to try to incorporate popular features and updating over Wi-Fi only was a feature that was desired by users. *See Auto Update.*
- A person of ordinary skill in the art would have been motivated to combine Symbian user equipment in combination with Android user equipment, BlackBerry user equipment, Microsoft Phone user equipment, and/or iOS user equipment because each of these operating systems were competitors with each other at the time. A person of ordinary skill in the art would have been motivated to look at what the other operating systems had in terms of features to see what features should be combined in order to improve Symbian. It was common at the time for each of these main operating systems designed to try to incorporate popular features and updating over Wi-Fi only was a feature that was desired by users. *See Auto Update.*

- A person of ordinary skill in the art would have been motivated to combine iOS user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.
- A person of ordinary skill in the art would have been motivated to combine Android user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.
- A person of ordinary skill in the art would have been motivated to combine BlackBerry user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.
- A person of ordinary skill in the art would have been motivated to combine Windows Phone user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.

- A person of ordinary skill in the art would have been motivated to combine Symbian user equipment in combination with Amazon Music, DroidWall, NYTime App, and/or SlingPlayer because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.
- A person of ordinary skill in the art would have been motivated to combine Android user equipment in combination with other available mobile applications with wi-fi only data updating settings because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.
- A person of ordinary skill in the art would have been motivated to combine iOS user equipment in combination with other available mobile applications with wi-fi only data updating settings because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.
- A person of ordinary skill in the art would have been motivated to combine BlackBerry user equipment in combination with other available mobile applications with wi-fi only data updating settings because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.

- A person of ordinary skill in the art would have been motivated to combine Symbian user equipment in combination with other available mobile applications with wi-fi only data updating settings because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.
- A person of ordinary skill in the art would have been motivated to combine Windows Phone user equipment in combination with other available mobile applications with wi-fi only data updating settings because these were popular application that ran on iOS, Android, Microsoft Phone, Blackberry, and/or Symbian and a person having ordinary skill in the art would have been motivated to look at these popular applications to see how applications designed have attempted to improve upon native functionalities or applications on the base operating systems. This is even the case for application that may not have necessarily run natively on a given operating system because at the time competition was fierce so a person of ordinary skill would look beyond a given ecosystem to see how their own operating system could be improved.
- A person of ordinary skill in the art would have been motivated to combine iOS user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each secondary reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Thus, a person having ordinary skill in the art at the time would have looked to these other sources to improve iOS user equipment.
- A person of ordinary skill in the art would have been motivated to combine Android user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each secondary reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what

they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Thus, a person having ordinary skill in the art at the time would have looked to these other sources to improve Android user equipment.

- A person of ordinary skill in the art would have been motivated to combine BlackBerry user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each secondary reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Thus, a person having ordinary skill in the art at the time would have looked to these other sources to improve BlackBerry user equipment.
- A person of ordinary skill in the art would have been motivated to combine Windows Phone user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each secondary reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Thus, a person having ordinary skill in the art at the time would have looked to these other sources to improve Windows Phone user equipment.
- A person of ordinary skill in the art would have been motivated to combine Symbian user equipment in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each secondary reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to

see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Thus, a person having ordinary skill in the art at the time would have looked to these other sources to improve Symbian user equipment.

- A person of ordinary skill in the art would have been motivated to combine DroidWall in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each secondary reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices.
- A person of ordinary skill in the art would have been motivated to combine NYTimes App in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett because each secondary reference relates to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices.
- A person of ordinary skill in the art would have been motivated to combine Chang in combination with Doyle, Auto Update, Kalke, Meneze, Motta, Mandyam, and/or Gore in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Doyle, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett each relate to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a

person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Furthermore, Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.

- A person of ordinary skill in the art would have been motivated to combine Doyle in combination with Chang, Auto Update, Kalke, Meneze, Motta, Mandyam, and/or Gore in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Doyle, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett each relate to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Furthermore, Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Kalke in combination with Doyle, Auto Update, Chang, Meneze, Motta, Mandyam, and/or Gore in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Doyle, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett each relate to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto

Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Furthermore, Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.

- A person of ordinary skill in the art would have been motivated to combine Meneze in combination with Doyle, Auto Update, Kalke, Change, Motta, Mandyam, and/or Gore in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Doyle, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett each relate to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Furthermore, Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Motta in combination with Doyle, Auto Update, Kalke, Change, Meneze, Mandyam, and/or Gore in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Doyle, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett each relate to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person

having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Furthermore, Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.

- A person of ordinary skill in the art would have been motivated to combine Mandyam in combination with Doyle, Auto Update, Kalke, Change, Motta, Meneze, and/or Gore in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Doyle, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett each relate to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what features users would be wanting in their mobile devices. Furthermore, Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Gore in combination with Doyle, Auto Update, Kalke, Change, Motta, Mandyam, and/or Meneze in further combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Doyle, Kalke, Meneze, Motta, Mandyam, Gore, Mauti, and/or Poplett each relate to updating data or software in a wireless device, or otherwise altering performance of a device based on different network coverages. Furthermore, all of the secondary references are from large companies in the wireless industry (*i.e.*, Apple, IBM, Microsoft, Qualcomm, HP, GMC, US Cellular, and AT&T) and a person of ordinary skill in the art would naturally look to these other companies to see what they were doing at the time. In addition, a person having ordinary skill in the art would have considered Auto Update, because it was a blog of users discussing the update feature. A person having ordinary skill in the art at the time would have reviewed such blogs and discussion to see what

features users would be wanting in their mobile devices. Furthermore, Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.

- A person of ordinary skill in the art would have been motivated to combine Chang in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Kalke in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Meneze in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Motta in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi,

and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.

- A person of ordinary skill in the art would have been motivated to combine Mandyam in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Gore in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine iOS user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Android user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in

how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.

- A person of ordinary skill in the art would have been motivated to combine BlackBerry user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Windows Phone user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Symbian user equipment in combination with Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl because Rappaport, Sesia, Holma & Toskala (2009), Kaaranen, Holma & Toskala (2004), Holma & Toskala (2011), Dahlman and Parkvall, Ahmadi, and/or Redl are all well-known textbooks relating to wireless communications and different wireless standards. A person of ordinary skill in the art would have been motivated to look to these textbooks for further information in how data is sent in a mobile network as well as for information regarding different wireless networks and their capabilities that existed at the time.
- A person of ordinary skill in the art would have been motivated to combine Gore and Mandyam as they were both filed by Qualcomm.

The suggested obviousness combinations discussed herein are not to be construed to suggest that any reference included in the combinations is not anticipatory. Further, to the extent that Plaintiff contends that any of the anticipatory prior art fails to disclose one or more limitations of the Asserted Claims, Defendants and Intervenor reserve the right to identify other prior art

references that, when combined with the anticipatory prior art, would render the claims obvious despite an allegedly missing limitation. Defendants and Intervenor will further specify the motivations to combine the prior art, including through reliance on expert testimony, at the appropriate later stage of this lawsuit.

The decision in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), held that patents that are based on new combinations of elements or components already known in a technical field may be found to have been obvious. The Supreme Court rejected a rigid application of the “teaching, suggestion, or motivation [to combine]” test. *Id.* at 407, 418. “In determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls. What matters is the objective reach of the claim.” *Id.* at 419. “Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* at 420. The Supreme Court emphasized the principle that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 416. A key inquiry is whether the “improvement is more than the predictable use of prior art elements according to their established function.” *Id.* at 417.

The Court further held that “in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Id.* at 420. It is sufficient that a combination of elements was “obvious to try” – “When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.” *Id.* at 421. “In that instance the fact that a combination was obvious to try

might show that it was obvious under § 103.” *Id.* Finally, the Supreme Court recognized that “[g]ranting patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility.” *Id.* at 419.

The rationale to combine or modify prior art references is significantly stronger when the references seek to solve the same problem, come from the same field, and correspond well together. *See In re Inland Steel Co.*, 265 F.3d 1354, 1362 (Fed. Cir. 2001) (allowing two references to be combined as invalidating art under similar circumstances where the art “focus[ed] on the same problem ... c[a]me from the same field of art [and] ... the identified problem found in the two references correspond[ed] well”).

All of the following rationales recognized in *KSR* support a finding of obviousness with respect to each of the obviousness combinations disclosed herein: (1) combining prior art elements according to known methods to yield predictable results; (2) simple substitution of one known element for another to obtain predictable results; (3) use of a known technique to improve similar devices, methods, or products in the same way; (4) applying a known technique to a known device, method, or product ready for improvement to yield predictable results; (5) “obvious to try,” that is, choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (6) known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; and (7) some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. Certain of these rationales are discussed more specifically below. The fact that other rationales are not

discussed more specifically should not be interpreted as an admission or concession that the other rationales do not apply.

Multiple teachings, suggestions, motivations, and/or reasons to modify any of the references and/or to combine two or more of the prior art references set forth herein come from many sources, including the prior art itself (individual references and as a whole), common knowledge, common sense, predictability, expectations, industry trends, design incentives or need, market demand or pressure, market forces, obviousness to try, the nature of the problem faced, and/or knowledge possessed by a person of ordinary skill. Defendants and Intervenor reserve the right to present expert testimony on, among other things, the teachings, suggestions, motivations, and/or reasons to modify any of the references and/or to combine any two or more of the prior art references presented in Exhibits D1 through D11 and/or Appendix D1.

Defendants and Intervenor further contend that the prior art identified in these Preliminary Invalidity Contentions is evidence of simultaneous or near-simultaneous independent invention by others of the alleged invention as recited in one or more of the Asserted Claims. Defendants and Intervenor reserve their rights to rely on the simultaneous or near-simultaneous independent invention by others as further evidence of the obviousness of the Asserted Claims.

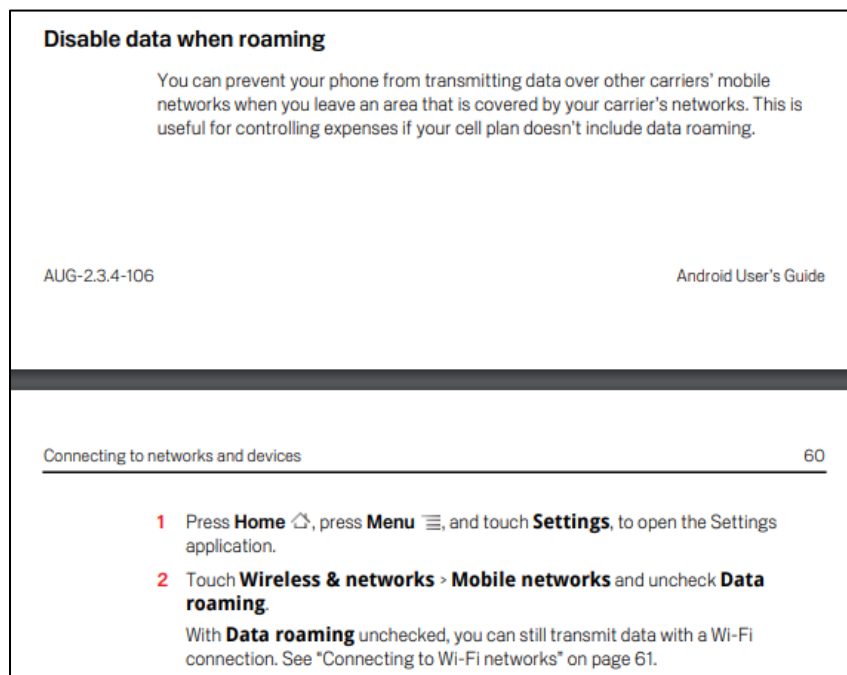
Each limitation of each of the Asserted Claims was well-known to those of ordinary skill in the art at the time. At best, the elements recited in the Asserted Claims are a mere combinations and modifications of these well-known elements. A person of ordinary skill in the art would be able, and motivated, to improve the existing technology in the same or similar manner by combining or modifying the individual elements that were already known in the art to yield predictable results.

2. Background And State Of The Art

Defendants and Intervenor set forth below a summary of their current understanding of the state of the art as understood as of the asserted priority dates of the 196 Patent for the general subject matter of the 196 Patent. The information discussed in this section may have formed the background knowledge of a person of ordinary skill in the art at the time the 196 Patent was filed and may have been used in determining whether and how to combine references to achieve the claimed inventions. *See Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (Fed. Cir. 2013) (stating that “the knowledge [of a person of ordinary skill in the art] is part of the store of public knowledge that must be consulted when considering whether a claimed invention would have been obvious”). Defendants and Intervenor expressly reserve the right to rely on each of the prior art references, systems, concepts, and technologies discussed in this Section with respect to the 196 Patent.

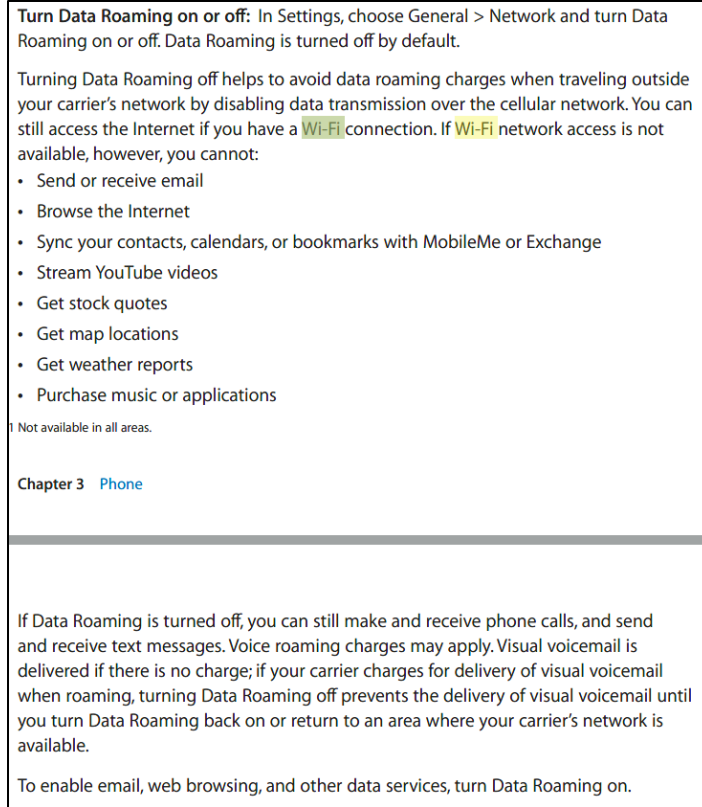
Defendants and Intervenor contend that, to the extent the primary references identified in these Preliminary Invalidity Contentions do not anticipate the Asserted Claims, it would have been obvious to combine any of the references, systems, concepts, or technologies discussed in this Section with those primary references. Defendants and Intervenor also reserve the right to rely on the discussions of the state of the art and prior art in the 196 Patent specification and its file history including file histories of related patents and foreign file histories of related patents in explaining the state of the art. Defendants and Intervenor further expressly reserve the right to supplement their summary of the background and state of the art, including, for example, with information from any of the authors or named inventors on any of the prior art references, by personnel familiar with systems based on any of the prior art references, or any prior art systems related to prior art references, or by technical experts retained on behalf of any party. Defendants and Intervenor also expressly reserve the right to rely on any admissions by any of the named inventors, institutions with which they were associated, and Plaintiff, regarding the state of the art.

User Equipment that defers transferring data until covered by an appropriate network is a long-existing procedure. For example, preventing UEs from “data roaming” on a specific network dates back to 2G. Below is a screenshot from a user’s guide for Android 2.3.4 which is dated May 20, 2011. It explains how you can turn off data roaming, which will prevent data usage when on a different carrier’s network (i.e., a first network) and allow data usage (i.e., get data updates) when back on your carrier’s network or one Wi-Fi (i.e., a second network).



Android 2.3.5 User Guide at 59-60.

Apple’s iPhones had similar settings:



iPhone 3G User Guide at 31, 46-47.

Likewise, prior art textbooks describe how “all cellular systems provide a service called roaming” but that roaming only occurs “[i]f a particular roamer has roaming authorization for billing purposes” enabled. *Wireless Communications* at 18, Theodore S. Rappaport (2002).

Likewise, the use of Wi-Fi and Wi-Fi networks was long known. IEEE 802.11-1997 was the first wireless networking standard. Prior art textbooks describe the importance of IEEE 802.11 standards to the wireless industry and note that by the late 1900s, IEEE gained popularity due to widespread acceptance of portable devices and the phenomenal popularity of the Internet. *Wireless Communications* at 46, Theodore S. Rappaport (2002).

The Third Generation Partnership Project had already solved interworking the 3GPP networks with other radio access technologies. For example, by the time of LTE, 3GPP had already solved the problem of how “LTE relies on an evolved packet core network which allows

interoperation with various access technologies, in particular earlier 3GPP technologies (GSM/EDGE and UTRAN9) as well as non-3GPP technologies (e.g. WiFi, CDMA2000 and WiMAX). Sesia et al., *The UMTS Long Term Evolution*, at 13 (2011).

As a result, there was a proliferation of equipment that was designed to connect to multiple types of networks before the priority date of the 196 Patent. For example, the original iPhone model A1203 (iPhone 2G) from 2007 was able to connect to both a Wi-Fi network and 2G.



iPhone 2G User Guide (A1203) at 6 (available at <https://fccid.io/BCGA1203/User-Manual/User-Manual-780942.pdf>).

This original iPhone even defaulted to Wi-Fi connections when using data intensive services such as Mail, Web, Stocks, Maps, or Weather.

Connecting to the Internet over Wi-Fi or EDGE

- By default, whenever you use Mail, Web, Stocks, Maps, or Weather, iPhone automatically connects to the Internet over a local Wi-Fi (wireless fidelity) network, or over the wide area EDGE (Enhanced Data GSM Environment) or GPRS (General Packet Radio Service) network if Wi-Fi is unavailable.

iPhone 2G User Guide (A1203) at 13.

This same phone was also deferring software updates. The original iPhone from 2008 would wait until a user was connected to a LAN network through a cable, at which point it would sync the updates from the computer with the phone.

Syncing iPhone with Your Computer

You can set iPhone so that whenever you connect it to your computer, items on iPhone are automatically synchronized with what's on your computer.

You can sync:

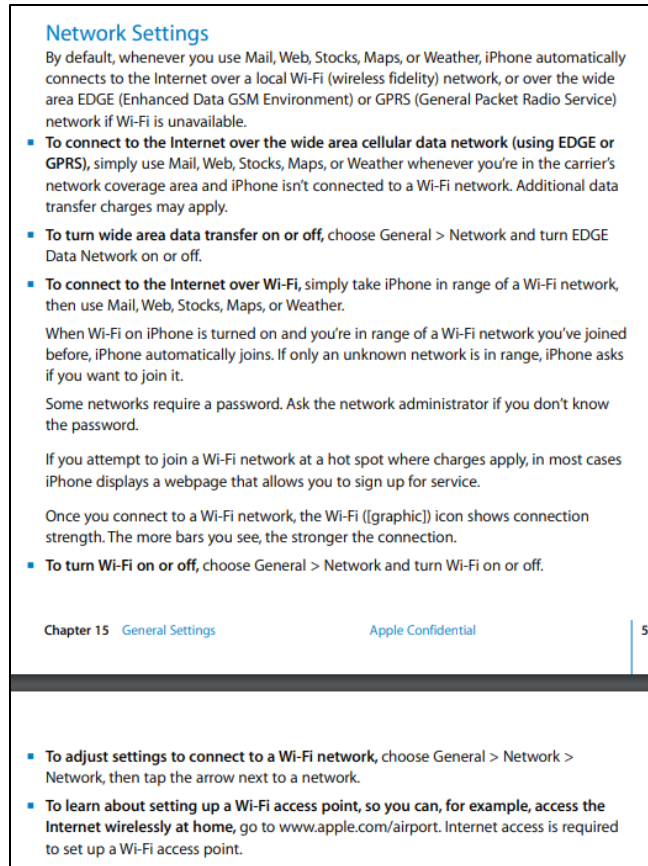
- Contacts (names, phone numbers, addresses)
 - Calendars (appointments, events, To Do lists)
 - Music and audiobooks
 - Movies
 - TV shows
 - Podcasts
 - Photos
 - Notes
 - Webpage bookmarks and more
- **To sync iPhone**, simply connect it to your computer. iTunes opens automatically and syncs iPhone according to your settings.



- You use iTunes on your computer to set iPhone sync settings and manage music and video on iPhone.

iPhone 2G User Guide (A1203) at 13; *see also* iPhone 3G User Guide at 8-9

In addition to those specific procedures, the original iPhone from 2008 had robust network settings that gave the user control over whether their data should be sent over a Wi-Fi network or a EDGE/GPRS network:



iPhone 2G User Guide (A1203) at 13.

Thus, by turning off the EDGE/GPRS setting, the UE would automatically defer any pending data requests until the phone was connected to the Wi-Fi network. This functionality is indistinguishable from the claims of the 196 patent.

But the iPhone also deferred other functions until Wi-Fi was available. For example, to send to a photo to a MobileMe Gallery, the phone would defer sending any data until the phone had joined a Wi-Fi network:

Sending a Photo to a MobileMe Gallery

If you have a MobileMe account, you can send photos directly from iPhone to a gallery you've created. You can also send photos to someone else's MobileMe gallery if that person has enabled email contributions.

Before you can send photos to a gallery, you must:

- Set up your MobileMe account on iPhone
- Publish a MobileMe gallery, and allow photo uploading by email
- Join a **Wi-Fi** network that is connected to the Internet

For more information about creating a gallery, see MobileMe Help.

Send a photo to your gallery: Choose any photo and tap , then tap "Send to MobileMe."

iPhone 3G User Guide at 79.

Likewise the iTunes store for early iPhones deferred all data until the user was connected to Wi-Fi:

iTunes Wi-Fi Music Store



You can search for, browse, preview, purchase, and download songs and albums from the iTunes Wi-Fi Music Store directly to iPhone. You can listen to audio or watch video podcasts from the iTunes Wi-Fi Music Store, either by streaming them from the Internet or by downloading them directly to iPhone.

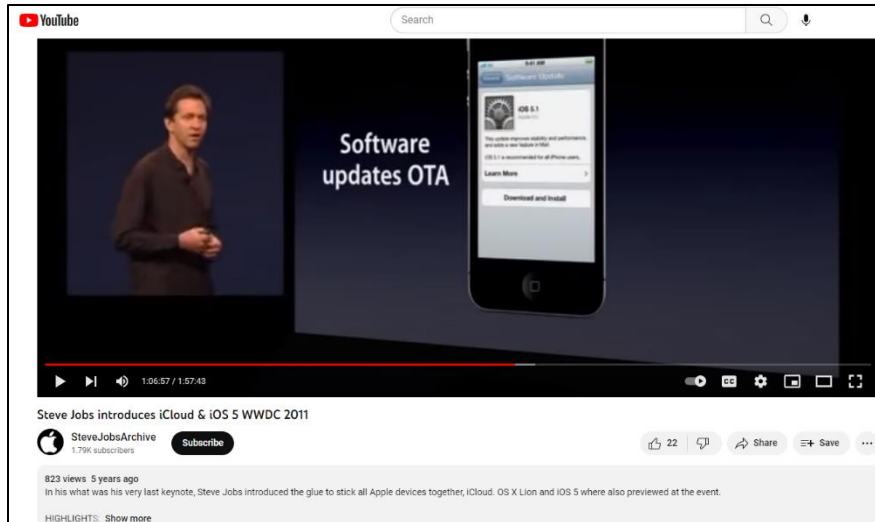
To use the iTunes Wi-Fi Music Store for songs and albums, iPhone must join a Wi-Fi network that is connected to the Internet. Podcasts can be streamed and downloaded over both cellular and Wi-Fi connections. See "[Connecting to the Internet](#)" on page [30](#).

You'll also need an iTunes Store account to purchase songs over Wi-Fi (the iTunes Wi-Fi Music Store is available in some countries only). If you don't already have an iTunes Store account, open iTunes on your computer and choose Store > Create Account to set one up.

You don't need an iTunes Store account to play or download podcasts.

iPhone 3G User Guide at 118.

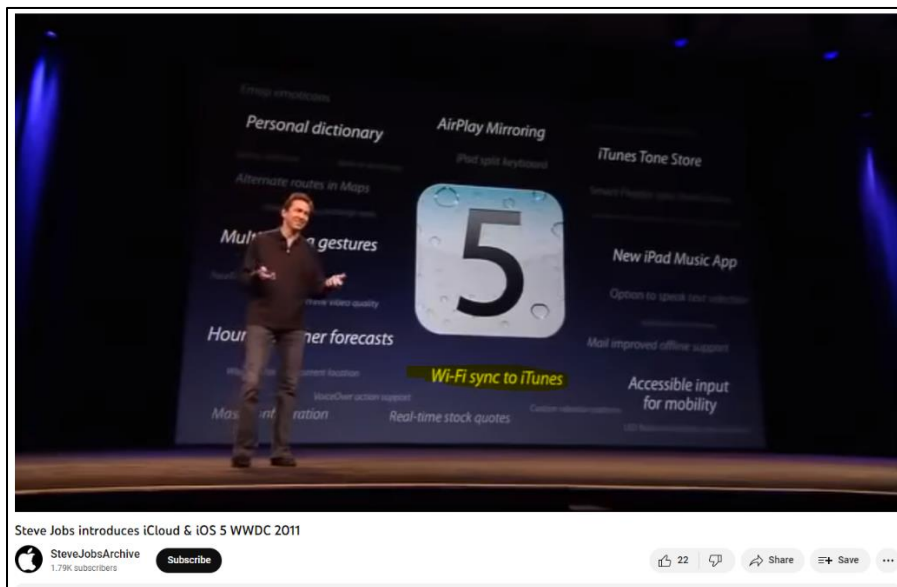
But even if the original 2G and 3G iPhone was not enough, Apple made further improvements to its data capability by the time of the priority date of the 196 patent in August 2011. In particular, on June 11, 2011, at WWDC for the iPhone 4 and the launch of iOS 5, Apple announced updates that iOS 5 would include (i) that software updates would now be Over The Air (OTA), and (ii) iCloud was introduced with automatic Wi-Fi syncing.



<https://www.youtube.com/watch?v=LPMjUtfQPks>

A POSITA following the development of wireless communication would have been watching the WWDC and would have immediately recognized that Software Updates (like Mail, Music, TV Shows, Movies, and Maps) would potentially utilize a substantial quantity of data and that there would be an immediate benefit (as with Mail, Music, TV Shows, Movies, and Maps) to defer Software updates OTA until the iPhone was in Wi-Fi coverage.

On iCloud, Apple specifically iCloud would use wirelessly syncing over Wi-Fi.



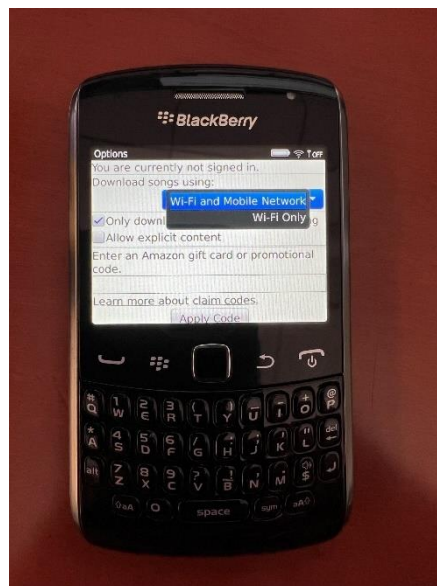
<https://www.youtube.com/watch?v=LPMjUtfQPks>

Upon information and belief, Exhibit D1 (prior art reference to Chang) is Apple's patent that covers at least the portion of iCloud syncing with Wi-Fi. Needed, in this address, Apple states that when you plug in your iPhone at night, the iCloud automatically finds iTunes over Wi-Fi and then syncs all your data over Wi-Fi. Many various reputable sources reported on WWDC. See, e.g., <https://www.engadget.com/2011-06-06-icloud-unveiled-at-wwdc.html>

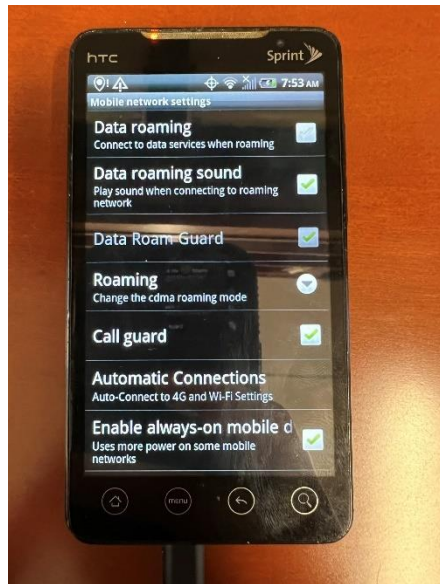
Furthermore, the above developments were not limited to the iPhone. Android, BlackBerry OS, Symbian, and Windows Phone 7.5 all had similar functionalities and features. For example, Exhibit D10 provides exemplary evidence of similar functionality running on phones from the 2010-2011 time frame and running, either Android, BlackBerry OS, Symbian, or Windows Phone 7.5. Each of these devices had the ability to turn roaming on and off, data on and off,⁶ and had some functionalities that would limit certain services or download to certain networks (like Wi-Fi). Below are some exemplary pictures of similar functionalities found on user equipment running these other operating systems. On information and belief, these operating systems running on these phones all pre-date August 24, 2011, or at least the functionality shown could be found on earlier versions of the operating systems. See <https://www.phonemore.com/systems/android/> (providing listing of all Android Versions); <https://www.phonemore.com/systems/android/2-3-5-gingerbread/> (stating release date of Android 2.3.5 was July 26, 2011); <https://www.phonemore.com/systems/blackberry-os/7-0/> (stating release date of BlackBerry OS 7.0 was May 1, 2011); <https://www.phonemore.com/systems/blackberry-os/7-1/> (stating release date of BlackBerry OS 7.1 was June 1, 2011); <https://www.windowscentral.com/phones/windows-phone/12-years-ago-today-microsoft-launched-windows-phone-7-and-won-a-cult-following>

⁶ Some even had the ability to turn off data on specific networks such as 3G, 4G, and Wi-Fi.

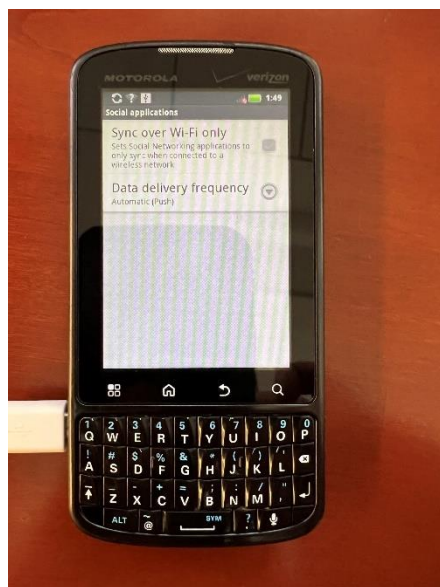
(stating release date of Windows Phone 7 in U.S. was November 8, 2010);
<https://www.engadget.com/2011-08-17-symbian-belle-download-leaked-to-n8-community-quickly-pulled-fr.html> (stating that Symbian Belle was leaked to the community before August 17, 2011);
<https://web.archive.org/web/20110924071241/http://www.unwiredview.com/2011/08/24/nokia-600-700-and-701-announced-all-running-symbian-belle-and-coming-before-the-end-of-september> (announcing the release of Symbian Belle);
<https://www.phonemore.com/systems/symbian/> (listing other version of Symbian).



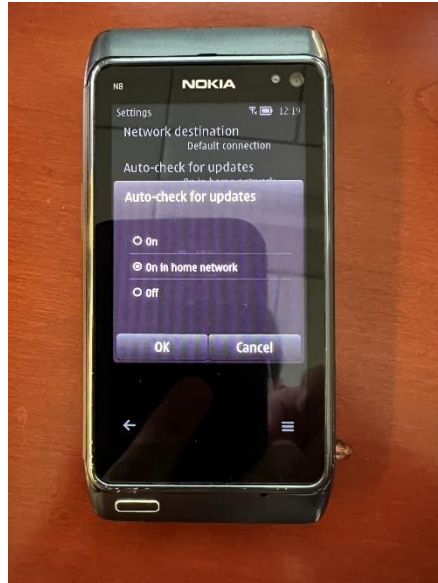
BlackBerry Curve 9360 running BlackBerry OS 7.0.



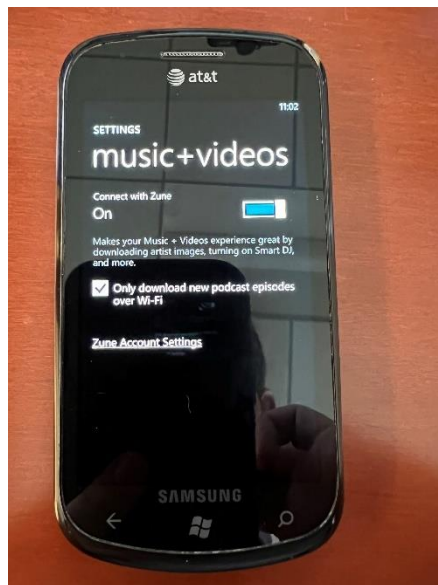
HTC Evo 4G running Android 2.3.5.



Motorola Droid Pro running Android 2.3.3.

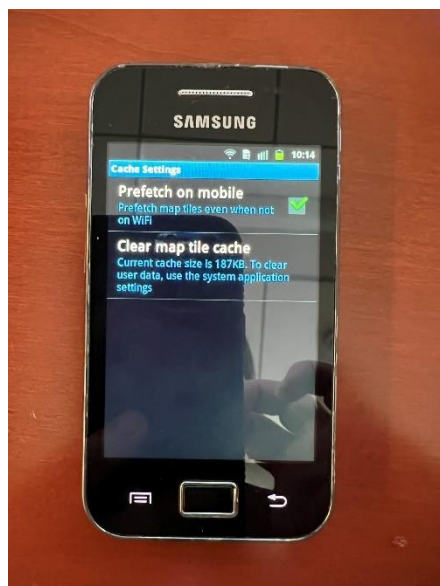


Nokia N8-00 running Symbian Belle Refresh.⁷



Samsung Focus 3G running Windows Phone 7.5.

⁷ On information and belief, this functionality was also present on earlier versions of Symbian, which Defendants and Intervenor intend to show throughout the course of discovery.

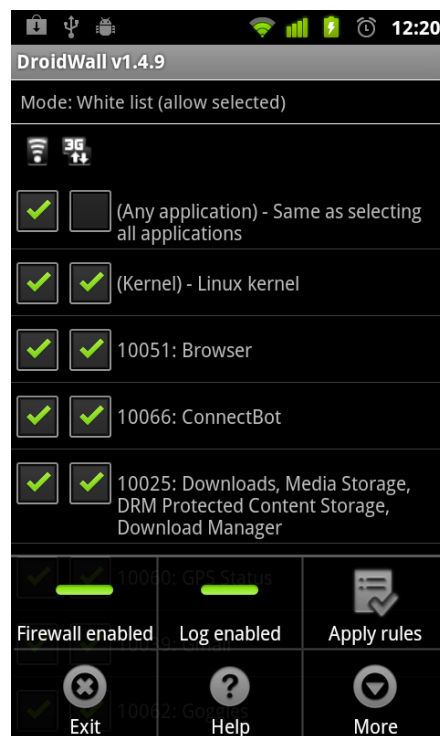


Samsung Galaxy Ace GT-S5830 running Android 2.3.5.

In addition, there were some mobile apps that had the very same functionality recited in Cobblestone's infringement contentions for the 196 Patent. Exhibit D6 and D11 provide examples of two such applications.⁸ For example, the NYTimes Applications for iOS (Exhibit D11) had the ability for a user to specify the synchronization frequency and options. More specifically, the NYTimes Application allows a user to turn on or off synchronization based on different network types, such as EDGE, 3G, and Wi-Fi. See <https://web.archive.org/web/20090416004402/http://www.nytimes.com/ref/membercenter/iphonefaq.html>; see also https://www.macworld.com/article/205328/250mb_ipad_plan_management.html. As such, the NYTimes Application would defer updating its data depending on the network the device was covered by depending on a user's settings. Defendants and Intervenor believe that discovery will confirm these functionalities were present before August of 2011. As another example, the

⁸ As discovery in this case continues, Defendants and Intervenor reserve the right to identify further applications with similar functionalities as these two applications.

applications DroidWall on Android (Exhibit D6) was available as early as July 27, 2009 on Android. See <https://code.google.com/archive/p/droidwall/>, <https://code.google.com/archive/p/droidwall/downloads>; <https://github.com/rodrigozr/droidwall/tree/wiki>. DroidWall allowed a user to specify on an application by application basis whether that application could receive updates on different networks, such as 3G or Wi-Fi (see screenshot below). As such, DroidWall too would cause an application to delay updating depending on the network the device was covered by depending on a user's settings.



Moreover, network operators such as AT&T understood the benefit of limiting large data downloads to Wi-Fi. Indeed, the concept of defaulting downloads to Wi-Fi only, and the subsequent device requirement that mandates it, came before the 2011 priority date of the 196 Patent. Exhibit D3 (U.S. Patent US 8,433,310 to Kalke et al. (“Kalke”)) is an AT&T patent

demonstrating that AT&T knew well before the 196 patent that software updates could be limited to Wi-Fi only.

3. *Secondary Considerations*

A patentee bears the burden of production with respect to evidence of secondary considerations of non-obviousness. *ZUP, LLC v. Nash Mfg., Inc.*, 896 F.3d 1365, 1373 (Fed. Cir. 2018). As of the date of these Preliminary Invalidity Contentions, Plaintiff has not identified any evidence of secondary considerations. As shown in these Preliminary Invalidity Contentions, other companies and individuals described, built, and/or patented the exact same concepts in the 196 Patent before Plaintiff ever did—often many years before. Even where others’ invention occurred around the same time as the 196 Patent, such simultaneous invention demonstrates the obviousness of the 196 Patent.

Additionally, potentially relevant evidence includes any prior art reference cited herein that occurred before or around the alleged inventions claimed in the 196 Patent. This also includes any prior art asserted in these Preliminary Invalidity Contentions that Plaintiff is able to pre-date based on its asserted priority dates by proving, *inter alia*, corroborated conception and diligent reduction to practice.

Defendants and Intervenor reserve all rights to further respond to any secondary considerations of non-obviousness raised by Plaintiff, including by updating, modifying, and/or adding to these Preliminary Invalidity Contentions. Defendants and Intervenor are not aware of any unexpected results (none is mentioned in the 196 Patent or its file histories), long felt need, commercial success (or any nexus to any allegedly successful commercial embodiment), or awards for the alleged inventions of the 196 Patent.

E. P.R. 3-3(D): INVALIDITY UNDER 35 U.S.C. § 112

As set forth below, Defendants and Intervenor contend that the Asserted Claims are invalid under 35 U.S.C. §112 because the claims (1) are indefinite; (2) fail to satisfy the enablement requirement; and/or (3) fail to satisfy the written description requirement.

Defendants' and Intervenor's contentions that the Asserted Claims identified in this section are made in the alternative and do not constitute, and should not be interpreted as, admissions regarding the construction or scope of the Asserted Claims identified herein or that the Asserted Claims identified herein would not have been anticipated and/or obvious in light of the prior art.

Plaintiff has not yet provided a claim construction for any of the terms or phrases that Defendants and Intervenor anticipate will be in dispute. Defendants and Intervenor, therefore, cannot provide a complete list of § 112 defenses because Defendants and Intervenor do not know whether Plaintiff will proffer a construction for certain terms and phrases that is broader than, or inconsistent with, the construction that would be supportable by the disclosure set forth in the specification. Defendants and Intervenor offer these contentions without prejudice to any position they may ultimately take as to any claim construction issues.

Accordingly, Defendants and Intervenor reserve the right to supplement, amend, and/or modify these § 112 invalidity contentions as discovery progresses.

1. Invalidity Under 35 U.S.C. § 112, ¶ 1

35 U.S.C. § 112, ¶ 1 requires that the specification contain a written description of the invention. “[T]he hallmark of written description is disclosure.” *Bos. Sci. Corp. v. Johnson & Johnson*, 647 F.3d 1353, 1361-62 (Fed. Cir. 2011) (citation omitted). The test for whether a specification adequately describes an invention is “whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date [T]he test requires an objective inquiry into the four corners

of the specification from the perspective of a person of ordinary skill in the art [It] is a question of fact.” *Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*); *Bos. Sci.*, 647 F.3d at 1362.

The enablement requirement of Section 112 demands that the patent specification enable “those skilled in the art to make and use the full scope of the claimed invention without ‘undue experimentation.’” *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361, 1365 (Fed. Cir. 1997) (quoting *In re Wright*, 999 F.2d 1557, 1561 (Fed. Cir. 1993)). “[T]he scope of the claims must be less than or equal to the scope of the enablement.” *Nat’l Recovery Tech., Inc. v. Magnetic Separation Sys., Inc.*, 166 F.3d 1190, 1196 (Fed. Cir. 1999).

Defendants and Intervenor contend that the following Asserted Claims are invalid under 35 U.S.C. § 112, ¶ 1. Each Asserted Claim identified below is invalid under ¶ 1 because the specification of the Asserted Patent fails to provide a sufficient written description, enabling disclosure and/or fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention the meaning of the term(s) and/or phrase(s):

Asserted Patent	Asserted Claim(s)	Term(s) and/or Phrase(s) Lacking Written Description and Enablement
196 Patent	23	more capable
196 Patent	23	wherein the second network is a more capable network than the first network
196 Patent	23	cycling over time through an update sequence
196 Patent	23	receiving, during the second coverage configuration, a data update
196 Patent	25	batching the deferred data updates for the device

Asserted Patent	Asserted Claim(s)	Term(s) and/or Phrase(s) Lacking Written Description and Enablement
196 Patent	26	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.
196 Patent	27	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.

2. *Invalidity Under 35 U.S.C. § 112, ¶ 2*

Claims are indefinite under 35 U.S.C. § 112, ¶ 2 when they “fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014).

In addition to Defendants and Intervenor's reservation of rights stated above, Defendants and Intervenor note that the Court's Docket Control Order contemplates that all indefiniteness issues be brought to the Court's attention through the *Markman* briefing process. Defendants' and Intervenor's detailed arguments as to indefiniteness will be presented at that time, *i.e.*, through the *Markman* meet and confer and briefing process.

Defendants and Intervenor contend that the Asserted Claim is invalid under 35 U.S.C. § 112, ¶ 2. The Asserted Claim(s) identified below is invalid under ¶ 2 because they fail to inform, with reasonable certainty, those skilled in the art about the scope of the claimed invention:

Asserted Patent	Asserted Claim(s)	Indefinite Term(s) and/or Phrase(s)
196 Patent	23	more capable
196 Patent	23	wherein the second network is a more capable network than the first network
196 Patent	23	cycling over time through an update sequence
196 Patent	23	receiving, during the second coverage configuration, a data update
196 Patent	25	batching the deferred data updates for the device

III. ACCOMPANYING DOCUMENT PRODUCTION

Pursuant to P.R. 3-4(a), Defendants and Intervenor are producing documentation sufficient to show the operation of any aspects or elements of each Accused Instrumentality identified by Plaintiff in its P.R. 3-1(c) charts.

Additionally, Pursuant to P.R. 3-4(b), Defendants and Intervenor are producing herewith a copy of each prior art reference identified above pursuant to P.R. 3-3(a) which does not appear

in the file histories of the 196 Patent as well as additional prior art references. To the extent any such prior art reference is not in English, Defendants and Intervenor have produced to Plaintiff or will produce to Plaintiff an English translation of the portion(s) of the non-English prior art reference (s) relied upon by Defendants and Intervenor.

DATED: May 12, 2023.

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the above and foregoing document has been served on May 12, 2023, on the counsel of record via electronic mail.

/s/ David S. Frist
David S. Frist