US008626165B1

(12) **United States Patent**
Narasimhan et al.

(10) **Patent No.: US 8,626,165 B1**
(45) **Date of Patent: Jan. 7, 2014**

(54) **DYNAMIC CARRIER SWITCHING**

(75) Inventors: **Subram Narasimhan**, Saratoga, CA (US); **Girish Bansilal Bajaj**, Bellevue, WA (US); **Siva Rama Kumar Somayajula**, Palo Alto, CA (US); **Clifton Liu**, Santa Clara, CA (US); **Varadarajan Gopalakrishnan**, Cupertino, CA (US)

(73) Assignee: **Amazon Technologies, Inc.**, Reno, NV (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 461 days.

(21) Appl. No.: **12/708,483**

(22) Filed: **Feb. 18, 2010**

(51) **Int. Cl.**

H04W 4/00	(2009.01)
H04W 36/00	(2009.01)
H04M 3/00	(2006.01)
H04W 24/00	(2009.01)
H04L 12/26	(2006.01)
H04M 1/00	(2006.01)

(52) **U.S. Cl.**
USPC **455/435.2**; 455/439; 455/418; 455/456.3; 455/552.1; 370/331; 370/338; 370/465; 370/252

(58) **Field of Classification Search**
USPC 455/435.2, 436, 418–420, 426.1, 423, 455/432.1–452.1, 456.1–457, 404.1–404.2, 455/552.1; 370/331, 338, 465, 252
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,503,084	A	4/1996	Goding et al.
5,534,888	A	7/1996	Lebby et al.
5,566,098	A	10/1996	Lucente et al.
5,603,084	A	2/1997	Henry, Jr. et al.
5,663,748	A	9/1997	Huffman et al.
5,761,485	A	6/1998	Munyan
5,847,698	A	12/1998	Reavey et al.
5,887,253	A	3/1999	O'Neil et al.
5,999,811	A	12/1999	Molne
6,341,270	B1	1/2002	Esposito et al.
6,393,298	B1	5/2002	Fulton
6,879,825	B1	4/2005	Daly
6,915,272	B1	7/2005	Zilliacus et al.
6,947,922	B1	9/2005	Glance
7,009,596	B2	3/2006	Seet et al.
7,027,575	B1	4/2006	Burgess
7,298,851	B1	11/2007	Hendricks et al.
7,304,635	B2	12/2007	Seet et al.
7,350,704	B2	4/2008	Barsness et al.
7,694,874	B2	4/2010	Narasimhan et al.
2002/0037724	A1	3/2002	Chatterjee et al.

(Continued)

FOREIGN PATENT DOCUMENTS

KR	1020060128515	12/2006
WO	WO 02/104062	12/2002

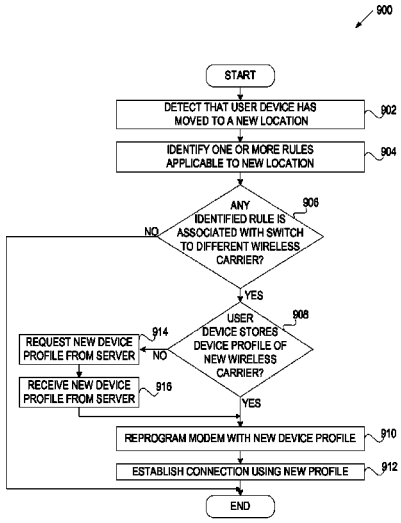
OTHER PUBLICATIONS

PCT International Search Report and Written Opinion for PCT Application No. PCT/US2008/057867, mailed Aug. 7, 2008, 3 pages.

(Continued)

Primary Examiner — Vladimir Magloire
Assistant Examiner — Michael Mapa
(74) *Attorney, Agent, or Firm* — Lowenstein Sandler LLP

(57) **ABSTRACT**

A rule server detects a condition pertaining to a switch of a user device to a preferred wireless carrier, and sends a message to the user device indicating a switch to the preferred wireless carrier.

29 Claims, 11 Drawing Sheets