

US010142925B2

(12) United States Patent

Tanaka

(10) Patent No.: US 10,142,925 B2

(45) Date of Patent:

Nov. 27, 2018

(54) COMMUNICATION APPARATUS

(71) Applicant: BROTHER KOGYO KABUSHIKI

KAISHA, Nagoya (JP)

(72) Inventor: Satoshi Tanaka, Nagoya (JP)

(73) Assignee: Brother Kogyo Kabushiki Kaisha,

Nagoya, Aichi (JP)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 15/461,843

(22) Filed: Mar. 17, 2017

(65) Prior Publication Data

US 2017/0195948 A1 Jul. 6, 2017

Related U.S. Application Data

(63) Continuation of application No. 14/037,599, filed on Sep. 26, 2013, now Pat. No. 9,603,114.

(30) Foreign Application Priority Data

Dec. 26, 2012 (JP) 2012-283463

(51) Int. Cl.

H04W 48/08 (2009.01) **H04W 48/18** (2009.01)

(Continued)

(52) U.S. Cl.

(58) Field of Classification Search

CPC ... H04W 4/008; H04W 4/005; H04W 76/023; H04L 67/12

104L (

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

7,023,979 B1 4/2006 Wu et al. 7,080,154 B1 7/2006 Inoue et al. (Continued)

FOREIGN PATENT DOCUMENTS

CN 102511129 A 6/2012 CN 102685674 A 9/2012 (Continued)

OTHER PUBLICATIONS

Extended European Search Report dated Jun. 6, 2014 from related European Application No. 13 18 5998.5.

(Continued)

Primary Examiner — Dung Hong (74) Attorney, Agent, or Firm — Scully, Scott, Murphy & Presser, PC

(57) ABSTRACT

A first communication apparatus may receive first identification information for identifying a first wireless network and second identification information for identifying a second wireless network via a first type of interface from a second communication apparatus, in a case where the second communication apparatus currently belongs to both the first wireless network and the second wireless network. The first communication apparatus may select, from among the first and second wireless networks, by using the first and the second identification information, at least one wireless network to which the first communication apparatus currently belongs, and execute a wireless communication for target data with the second communication apparatus via a second type of interface by using a target wireless network included in the selected at least one wireless network.

20 Claims, 17 Drawing Sheets

