



US 20170251460A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2017/0251460 A1**
(43) **Pub. Date: Aug. 31, 2017**

(54) **APPARATUS AND METHOD FOR PERFORMING RANDOM ACCESS IN BEAM-FORMED SYSTEM**

Publication Classification

(51) **Int. Cl.**
H04W 72/04 (2006.01)
H04W 76/04 (2006.01)
H04B 7/06 (2006.01)
(52) **U.S. Cl.**
CPC *H04W 72/0406* (2013.01); *H04B 7/0617* (2013.01); *H04W 76/046* (2013.01)

(71) Applicant: **Samsung Electronics Co., Ltd.**, Suwon-si (KR)

(72) Inventors: **Anil AGIWAL**, Suwon-si (KR);
Youngbin CHANG, Anyang-si (KR);
Nigam ANSHUMAN, Bangalore (IN)

(57) **ABSTRACT**

A method for performing a random access is provided. The method includes identifying a first downlink (DL) reception (RX) beam based on a measurement on a beam measurement signal, identifying a first uplink (UL) transmission (TX) beam corresponding to the identified first DL RX beam and transmitting at least one random access preamble for an RX sweeping at a base station, using the identified first UL TX beam based on a first power.

(21) Appl. No.: **15/443,562**

(22) Filed: **Feb. 27, 2017**

Related U.S. Application Data

(60) Provisional application No. 62/300,333, filed on Feb. 26, 2016, provisional application No. 62/334,660, filed on May 11, 2016.

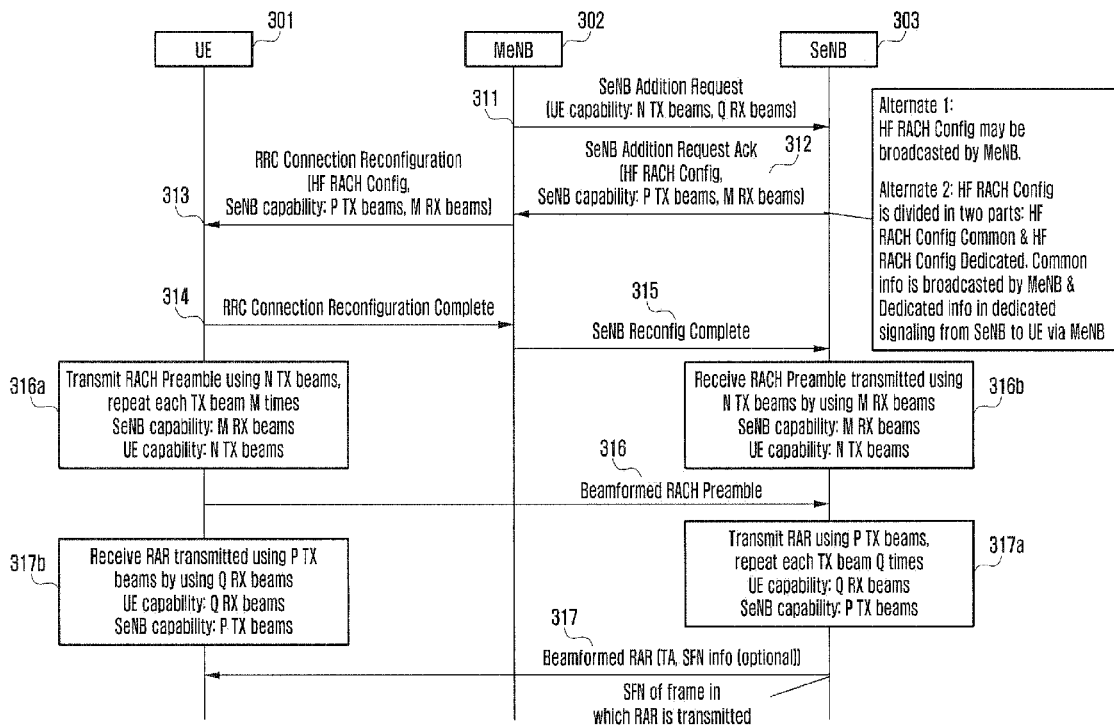


FIG. 1
(RELATED ART)

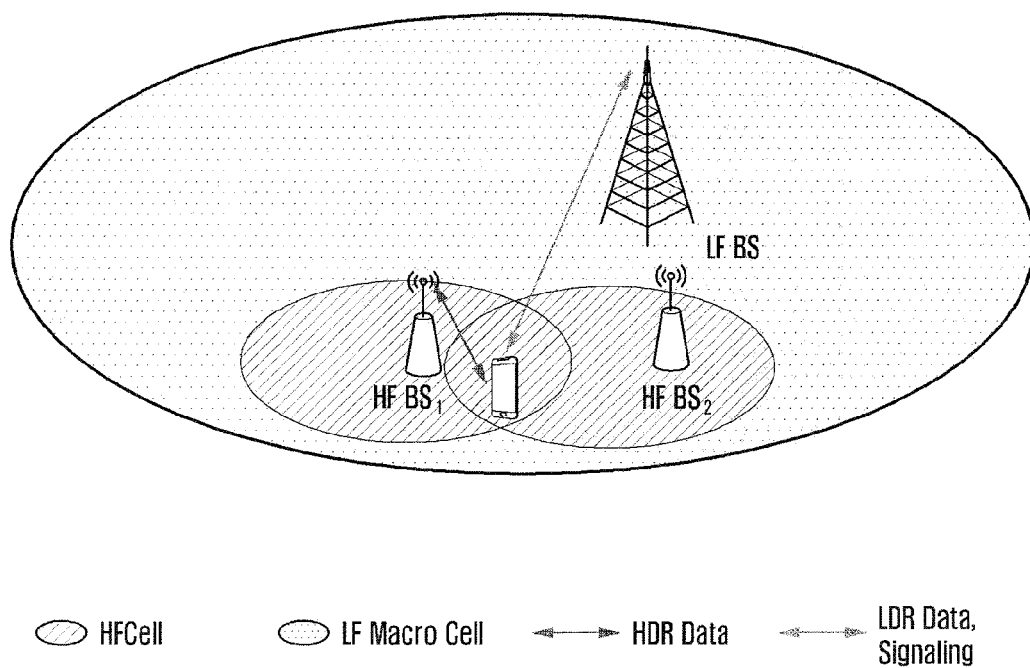


FIG. 2
(RELATED ART)

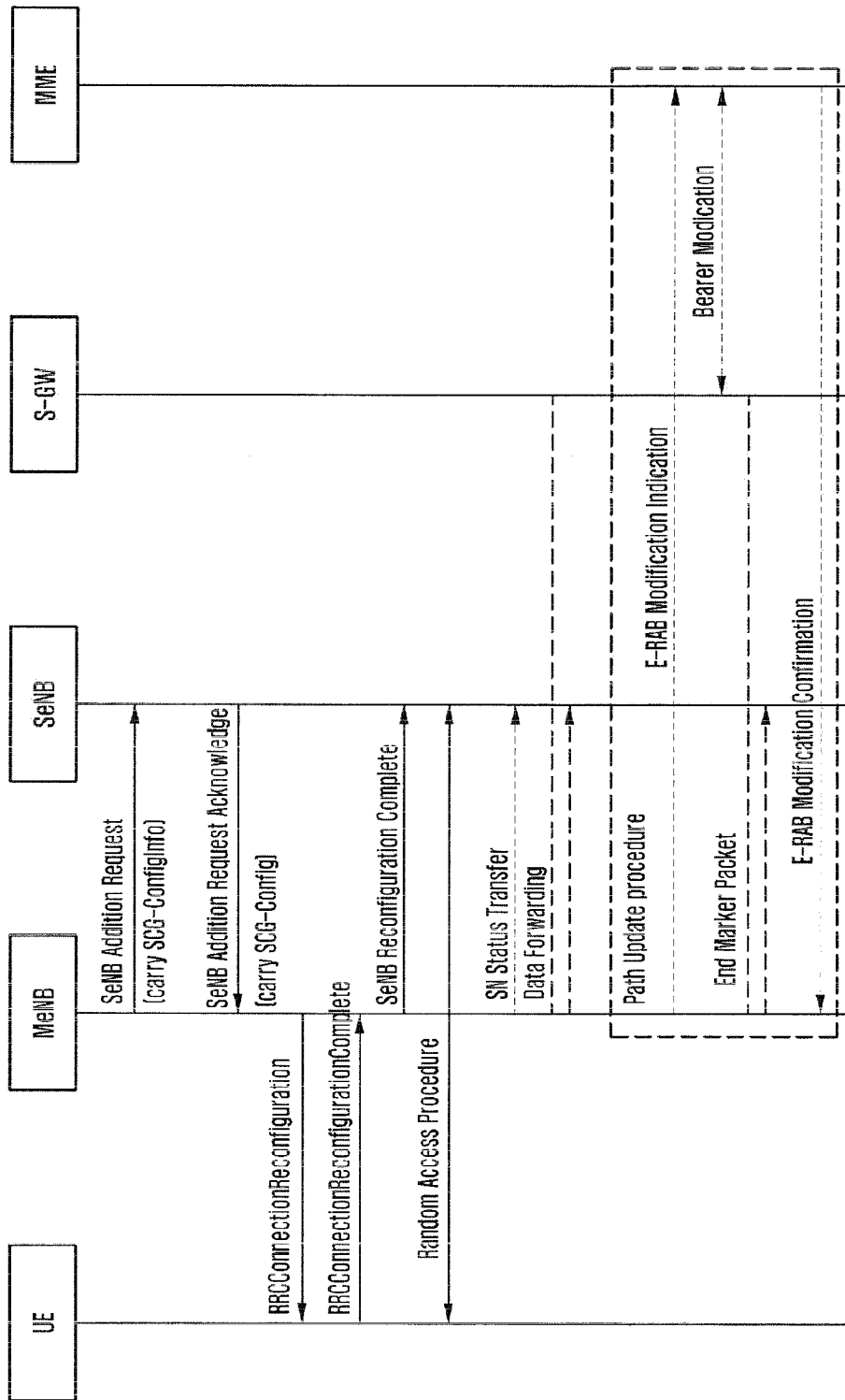


FIG. 3

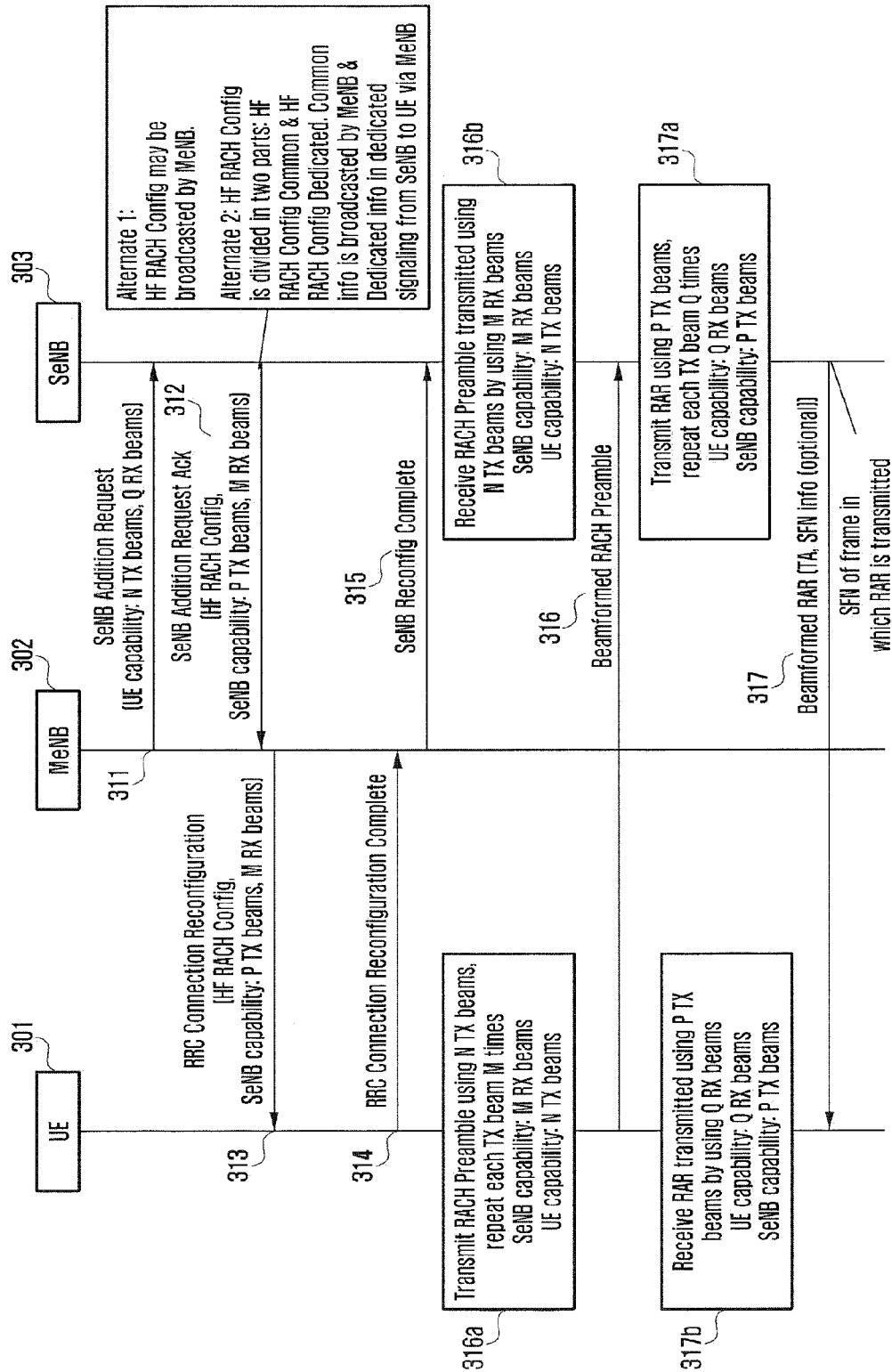
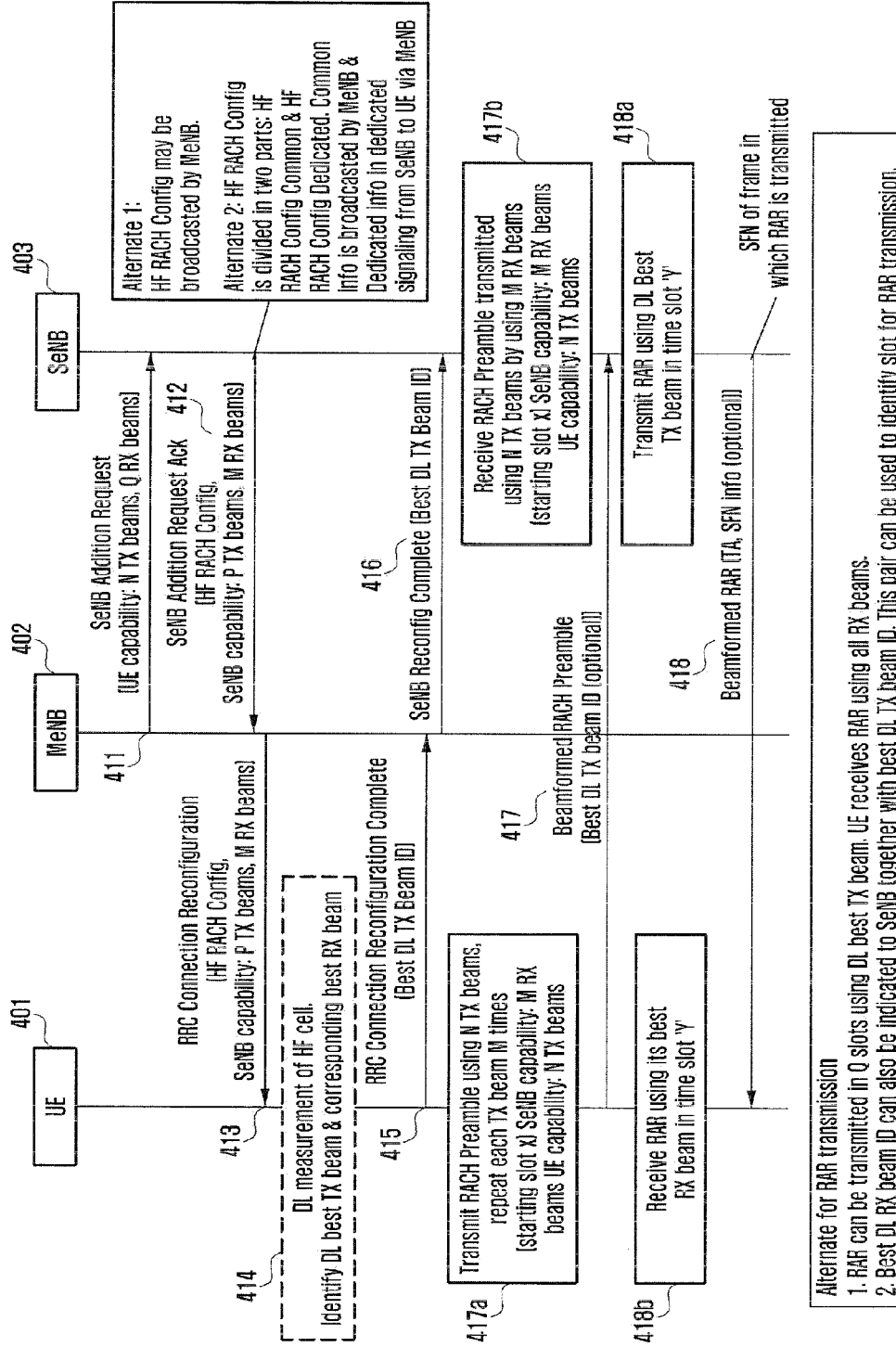


FIG. 4



Explore Litigation Insights

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

Real-Time Litigation Alerts



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

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

Advanced Docket Research



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

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

Analytics At Your Fingertips



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

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

API

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

LAW FIRMS

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

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

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.