

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2023/0232458 A1

Christoffersson et al.

Jul. 20, 2023 (43) **Pub. Date:**

(54) RANDOM ACCESS RESPONSE IN A WIRELESS COMMUNICATION NETWORK

(71) Applicant: Telefonaktiebolaget LM Ericsson (publ), Stockholm (SE)

Inventors: Jan Christoffersson, Luleå (SE); Min

Wang, Luleå (SE)

(21) Appl. No.: 18/029,150

(22) PCT Filed: Sep. 29, 2020

(86) PCT No.: PCT/SE2020/050914

§ 371 (c)(1),

Mar. 29, 2023 (2) Date:

Publication Classification

(51) Int. Cl. H04W 74/08 (2006.01) (52) U.S. Cl. CPC *H04W 74/0833* (2013.01)

(57)**ABSTRACT**

Embodiments herein include a method performed by a radio network node (12) configured for use in a wireless communication network (10). The method comprises receiving a message (16) of a procedure for random access by a wireless device (14) to a cell served by the radio network node (12). The method also comprises selecting, as a function of on which uplink bandwidth part (30-0 . . . 30-N) of the cell the message (16) was received and/or as a function of an information field (16A) of the message (16), a format of a random access response (18) to be transmitted as a response to the message (16). The method also comprises transmitting the random access response (18) with the selected format

