



US 20230232478A1

(19) **United States**

(12) **Patent Application Publication**
Jaldén et al.

(10) **Pub. No.: US 2023/0232478 A1**

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

(54) **NETWORK NODE AND METHOD FOR
SIMULTANEOUS TRANSMISSIONS IN A
WIRELESS COMMUNICATIONS NETWORK**

Publication Classification

(51) **Int. Cl.**

H04W 76/15 (2006.01)

H04W 72/121 (2006.01)

(52) **U.S. Cl.**

**CPC H04W 76/15 (2018.02); H04W 72/121
(2013.01)**

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

(72) Inventors: **Niklas Jaldén, Enköping (SE); Anders
Furuskär, Stockholm (SE); Hans
Hannu, Luleå (SE); Niklas
Wernersson, Kungsängen (SE)**

(21) Appl. No.: **18/011,565**

(22) PCT Filed: **Jun. 25, 2020**

(86) PCT No.: **PCT/SE2020/050667**

§ 371 (c)(1),

(2) Date: **Dec. 20, 2022**

(57)

ABSTRACT

A method performed by a network node for handling data transmissions to two or more User Equipments, UEs, in a wireless communications network is provided. The network node decides that a first UE and a second UE are compatible for simultaneous data transmissions. The network node times the data transmissions to the first UE and the second UE in a common time resource, for simultaneous data transmissions comprising a first data transmission to the first UE and a second data transmission the second UE.

401. Deciding that a first UE and a second UE are compatible for simultaneous data transmissions



402. Determining that each of the first UE and the second UE has predictive requirement for data



403. Timing the data transmissions to the first UE and the second UE in a common time resource, for simultaneous data transmissions comprising a first data transmission to the first UE and a second data transmission the second UE