



US 20240214166A1

(19) **United States**(12) **Patent Application Publication**
GAO et al.(10) **Pub. No.: US 2024/0214166 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **METHODS AND USER EQUIPMENT FOR
HANDLING COMMUNICATION****Publication Classification**(51) **Int. Cl.****H04L 5/00** (2006.01)**H04B 7/06** (2006.01)**H04W 24/10** (2006.01)(52) **U.S. Cl.****CPC** **H04L 5/0057** (2013.01); **H04B 7/0626**(2013.01); **H04L 5/001** (2013.01); **H04L****5/0048** (2013.01); **H04W 24/10** (2013.01)

(57)

ABSTRACT

Embodiments herein show a method performed by a user equipment for handling communication via a set of serving cells comprising a first serving cell and a second serving cell of a communication network. The user equipment receives a grant on a first serving cell, wherein the grant comprises a first identifier identifying Channel State Information Reference Signal (CSI-RS) resources of the first serving cell. Furthermore, the user equipment calculates a first CSI report for the first serving cell using the CSI-RS resources identified by the first identifier; and calculates a second CSI report for a second serving cell, using CSI-RS resources of the second serving cell identified by a second identifier, the second identifier being received previously in a grant on the second serving cell. The user equipment then transmits the first and second CSI reports to a network node serving the first serving cell.

(71) Applicant: **Telefonaktiebolaget LM Ericsson
(PUBL)**, Stockholm (SE)(72) Inventors: **Shiwei GAO**, NEPEAN (CA); **Siva
MURUGANATHAN**, STITTSVILLE
(CA); **Robert Mark HARRISON**,
GRAPEVINE, TX (US); **Stephen
GRANT**, PLEASANTON, CA (US)(21) Appl. No.: **18/591,316**(22) Filed: **Feb. 29, 2024****Related U.S. Application Data**(63) Continuation of application No. 16/304,179, filed on
Nov. 23, 2018, now Pat. No. 11,929,957, filed as
application No. PCT/SE2017/050556 on May 23,
2017.(60) Provisional application No. 62/340,353, filed on May
23, 2016.