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ISLAM et al.(10) **Pub. No.: US 2023/0231618 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **BEAM CHANGING FOR A REPEATER NODE****H04L 27/26** (2006.01)**H04W 72/044** (2006.01)(71) Applicant: **QUALCOMM Incorporated**, San Diego, CA (US)(52) **U.S. Cl.**CPC **H04B 7/1555** (2013.01); **H04B 7/0695** (2013.01); **H04L 5/0098** (2013.01); **H04L 27/2666** (2013.01); **H04W 72/046** (2013.01)(72) Inventors: **Muhammad Nazmul ISLAM**, Littleton, MA (US); **Navid Abedini**, Basking Ridge, NJ (US); **Junyi LI**, Fairless Hills, PA (US); **Ori Shental**, Marlboro, NJ (US)

(57)

ABSTRACT

This disclosure provides systems, apparatus, methods, and computer-readable media for beam switching by a repeater node that forwards communications from one of a first node or a second node to the other of the first node or the second node. For example, after a change of position by the second node, the first node may provide the repeater node an instruction to perform a beam change operation to communicate with the second node. In some aspects, performing the beam change operation by the repeater node may improve reliability of wireless communications, such as by focusing signal energy in a particular direction. Further, a beam change delay time interval or a scheduling of the beam change delay time interval may be selected based on scheduling associated with other nodes, which may reduce a number of messages sent to the repeater node (such as by reducing instructions to change beam directions).

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