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(71) Applicant: PANASONIC INTELLECTUAL PROPERTY CORPORATION OF AMERICA [US/US]; 20000 Mariner Avenue, Suite 200, Torrance, California 90503 (US).

(72) Inventors: **CHITRAKAR, Rojan**; c/o Panasonic R&D Center Singapore, 202 Bedok South Avenue 1 #02-11, Singapore 469332 (SG). **HUANG, Lei**; c/o Panasonic R&D Center Singapore, 202 Bedok South Avenue 1 #02-11, Singapore 469332 (SG). **URABE, Yoshio**; Panasonic Corporation, 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501 (JP).

(74) Agent: **SPRUSON & FERGUSON (ASIA) PTE LTD**; P.O. Box 1531, Robinson Road Post Office, Singapore 903031 (SG).

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(54) Title: COMMUNICATION APPARATUS AND COMMUNICATION METHOD FOR MULTI-LINK SECURED RETRANSMISSIONS

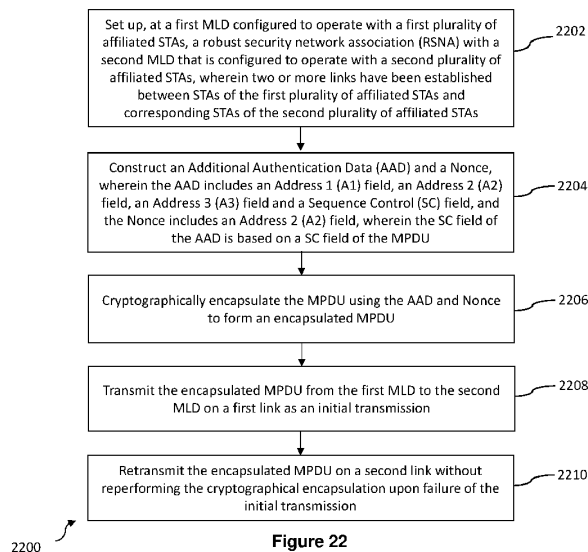


Figure 22

(57) Abstract: Communication devices and methods for multi-link secured retransmissions are provided. One exemplary embodiment provides a multi-link device (MLD) configured to operate with a first plurality of affiliated STAs, comprising: circuitry, which in operation, sets up a robust security network association (RSNA) with a second MLD that is configured to operate with a second plurality of affiliated STAs, wherein two or more links have been established between STAs of the first plurality of affiliated STAs and corresponding STAs of the second plurality of affiliated STAs, wherein the circuitry constructs an Additional Authentication Data (AAD) and a Nonce that are used for cryptographical encapsulation of a MAC protocol data unit (MPDU) to form an encapsulated MPDU, wherein the AAD includes an Address 1 (A1) field, an Address 2 (A2) field, an Address 3 (A3) field and a Sequence Control (SC) field, and the Nonce includes an Address 2 (A2) field, wherein the SC field of the AAD is based on a SC field of the MPDU, and a transmitter, which in operation, transmits the encapsulated MPDU to the second MLD on a first link as an initial transmission, and upon failure of the initial transmission, retransmits the encapsulated MPDU on a second link without reperforming the cryptographical encapsulation.

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