

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2023/0231800 A1 Licardie et al.

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

(54) RESILIENT DATA COMMUNICATIONS WITH PHYSICAL LAYER LINK AGGREGATION, EXTENDED FAILURE **DETECTION AND LOAD BALANCING**

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Appl. No.: 18/093,995 (21)

(22) Filed: Jan. 6, 2023

Related U.S. Application Data

- (63)Continuation of application No. 16/709,231, filed on Dec. 10, 2019, now Pat. No. 11,558,285, which is a continuation of application No. 16/230,519, filed on Dec. 21, 2018, now Pat. No. 10,505,841, which is a continuation of application No. 15/937,785, filed on Mar. 27, 2018, now Pat. No. 10,164,874, which is a continuation of application No. 15/376,577, filed on Dec. 12, 2016, now Pat. No. 9,929,900, which is a continuation of application No. 15/077,785, filed on Mar. 22, 2016, now Pat. No. 9,521,036, which is a continuation of application No. 14/281,746, filed on May 19, 2014, now Pat. No. 9,294,943, which is a continuation of application No. 13/305,703, filed on Nov. 28, 2011, now Pat. No. 8,774,000, which is a continuation of application No. 12/205,791, filed on Sep. 5, 2008, now Pat. No. 8,264,953.
- (60) Provisional application No. 60/970,476, filed on Sep. 6, 2007.

Publication Classification

(51) Int. Cl. (2006.01)H04L 45/28 H04L 12/40 (2006.01)

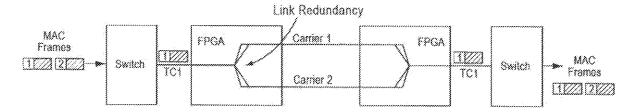
H04L 45/24	(2006.01)
H04L 47/41	(2006.01)
H04L 41/0668	(2006.01)
H04W 24/04	(2006.01)
H04W 28/02	(2006.01)
H04L 69/323	(2006.01)
H04L 1/00	(2006.01)
H04L 43/0811	(2006.01)
H04L 43/0823	(2006.01)
H04L 45/00	(2006.01)
H04L 47/125	(2006.01)

(52) U.S. Cl.

CPC H04L 45/28 (2013.01); H04L 12/40182 (2013.01); H04L 45/24 (2013.01); H04L 47/41 (2013.01); H04L 41/0668 (2013.01); H04W 24/04 (2013.01); H04W 28/0231 (2013.01); H04L 45/245 (2013.01); H04L 69/323 (2013.01); H04L 1/0041 (2013.01); H04L 43/0811 (2013.01); H04L 43/0823 (2013.01); H04L 45/22 (2013.01); H04L 47/125 (2013.01); H04L 49/352 (2013.01)

ABSTRACT

Rapid channel failure detection and recovery in wireless communication networks is needed in order to meet, among other things, carrier class Ethernet channel standards. Thus, resilient wireless packet communications is provided using a physical layer link aggregation protocol with a hardwareassisted rapid channel failure detection algorithm and load balancing, preferably in combination. This functionality may be implemented in a Gigabit Ethernet data access card with an engine configured accordingly. In networks with various topologies, these features may be provided in combination with their existing protocols.



Physical Layer Aggregation