(54) **STATICALLY-CONFIGURED INTERNET PROTOCOL (IP) NETWORK TRAFFIC SHAPING FOR ADAPTATIVE MODULATION AND CODING DATA LINKS**

(71) Applicant: **Itron, Inc.**, Liberty Lake, WA (US)

(72) Inventor: **Madani Lainani**

(21) Appl. No.: **18/146,062**

(22) Filed: **Dec. 23, 2022**

Publication Classification

(51) **Int. Cl.**

H04L 47/22 (2006.01)

H04L 41/0816 (2006.01)

H04L 47/263 (2006.01)

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

CPC *H04L 47/22* (2013.01); *H04L 41/0816* (2013.01); *H04L 47/263* (2013.01)

(57) **ABSTRACT**

A method of traffic shaping on an adaptive modulation and coding (AMC) data link may include, with a traffic shaping configuration agent, fetching from a neighbor routing table stored on a network interface card (NIC) data defining a first modulation of a data link and a first physical layer data transmission rate associated with a first media access control (MAC) address. The traffic shaping configuration agent may further identify a first maximum achievable goodput for the first modulation and the first physical layer data transmission rate and reconfigure an operating system (OS) traffic shaping implementation based on the first maximum achievable goodput.

400 →

MODULATION	PHY DATA RATE	MAX ACHIEVABLE GOODPUT
FSK100	100 KBPS	45 KBPS
GFSK200	200 KBPS	120 KBPS
OFDM600	600 KBPS	480 KBPS

USER-CONFIGURED PERCENTAGE OF MAX. ACHIEVABLE GOODPUT 410

TRAFFIC SHAPING CONFIGURATION AGENT 122

NEIGHBOR ROUTING TABLE 306

UPDATED TRAFFIC SHAPING STATIC CONFIGURATION 412