



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

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(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 →

The diagram illustrates a traffic shaping system 400. It includes a table 402 with three columns: MODULATION (404), PHY DATA RATE (406), and MAX ACHIEVABLE GOODPUT (408). The table contains three rows of data: FSK100 (100 KBPS, 45 KBPS), GFSK200 (200 KBPS, 120 KBPS), and OFDM600 (600 KBPS, 480 KBPS). This table feeds into a TRAFFIC SHAPING CONFIGURATION AGENT 122. The agent also receives input from a USER-CONFIGURED PERCENTAGE OF MAX. ACHIEVABLE GOODPUT 410 and a NEIGHBOR ROUTING TABLE 306. The output of the agent is an UPDATED TRAFFIC SHAPING STATIC CONFIGURATION 412.

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

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graph LR
    402[Table 402] --> 122[TRAFFIC SHAPING CONFIGURATION AGENT 122]
    410[USER-CONFIGURED PERCENTAGE OF MAX. ACHIEVABLE GOODPUT 410] --> 122
    306[NEIGHBOR ROUTING TABLE 306] --> 122
    122 --> 412[UPDATED TRAFFIC SHAPING STATIC CONFIGURATION 412]
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