



US009411400B1

(12) **United States Patent**
Dropps

(10) **Patent No.:** **US 9,411,400 B1**
(45) **Date of Patent:** **Aug. 9, 2016**

(54) **METHODS AND SYSTEMS FOR ADVERTISING AVAILABLE CREDIT AT MEMORY OF NETWORK DEVICE PORTS BASED ON TEMPERATURE**

(71) Applicant: **QLOGIC, Corporation**, Aliso Viejo, CA (US)

(72) Inventor: **Frank R. Dropps**, Maple Grove, MN (US)

(73) Assignee: **QLOGIC, Corporation**, Aliso Viejo, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 324 days.

(21) Appl. No.: **13/949,095**

(22) Filed: **Jul. 23, 2013**

(51) **Int. Cl.**
G06F 1/32 (2006.01)

(52) **U.S. Cl.**
CPC **G06F 1/3234** (2013.01)

(58) **Field of Classification Search**
USPC 713/300 S
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | |
|-------------------|---------|---------------|-----------------------|
| 6,281,738 B1 * | 8/2001 | Kamiya | 327/513 |
| 6,687,165 B1 * | 2/2004 | Cioaca | 365/189.05 |
| 6,718,139 B1 * | 4/2004 | Finan et al. | 398/59 |
| 8,806,031 B1 * | 8/2014 | Kondur et al. | 709/228 |
| 8,964,547 B1 * | 2/2015 | Rygh | H04L 47/39 370/235 |
| 2012/0096293 A1 * | 4/2012 | Floyd et al. | 713/323 |
| 2013/0322331 A1 * | 12/2013 | Ramkumar | H04W 28/10 370/328 |

* cited by examiner

Primary Examiner — Thomas Lee

Assistant Examiner — Danny Chan

(74) *Attorney, Agent, or Firm* — Klein, O'Neill & Singh, LLP

(57) **ABSTRACT**

Machine-implemented method for a network device is provided. A temperature (T) of an application specific integrated circuit (ASIC) for the network device is compared with a first threshold value. A receive buffer for the network device is placed in an active state, when T is below the first threshold value, and then increasing available credit to store information at the receive buffer. T is also compared with a second threshold value and when T has reached or exceeded the second threshold value, one or more receive buffers are placed in a reduced power state when one or more receive buffers are not currently storing any information.

20 Claims, 5 Drawing Sheets

