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(12) **United States Patent**
Ackley

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(54) **TRANSLATING MEDIA ACCESS CONTROL (MAC) ADDRESSES IN A NETWORK HIERARCHY**

H04L 61/2596 (2013.01); **H04L 61/6022** (2013.01); **G06F 2009/45562** (2013.01); **G06F 2009/45595** (2013.01)

(71) Applicant: **Rackspace US, Inc.**, San Antonio, TX (US)

(58) **Field of Classification Search**

None

See application file for complete search history.

(72) Inventor: **Jason Ackley**, Cibolo, TX (US)

(56)

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(73) Assignee: **Rackspace US, Inc.**, San Antonio, TX (US)

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 320 days.

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This patent is subject to a terminal disclaimer.

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(21) Appl. No.: **14/606,184**

U.S. Appl. No. 13/352,852 entitled "Optimizing Allocation of On-Demand Resources Using Performance Zones," filed Jan. 18, 2012, by Erik V. Carlin, et al.

(22) Filed: **Jan. 27, 2015**

(Continued)

(65) **Prior Publication Data**

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Primary Examiner — Kwang B Yao

Assistant Examiner — Hardikkumar Patel

Related U.S. Application Data

(74) *Attorney, Agent, or Firm* — Dykema Gossett P.L.L.C.

(63) Continuation of application No. 13/474,958, filed on May 18, 2012, now Pat. No. 8,964,735.

(57)

ABSTRACT

(51) **Int. Cl.**

H04L 12/28 (2006.01)

G06F 9/455 (2006.01)

H04L 12/743 (2013.01)

H04L 29/12 (2006.01)

H04L 29/06 (2006.01)

H04L 12/24 (2006.01)

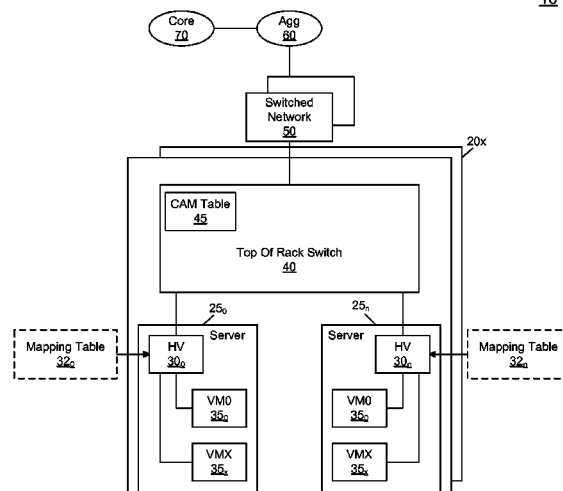
In one embodiment a method includes receiving a packet including a destination media access control (MAC) address field having a MAC address of a hypervisor and a destination Internet protocol (IP) address field having an IP address of a virtual machine (VM) coupled to the hypervisor. The method further determines a MAC address of the VM using the IP address of the VM and applies the VM MAC address to the destination MAC address field of the packet to forward the packet to the VM.

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

CPC **G06F 9/45558** (2013.01); **H04L 29/06095** (2013.01); **H04L 41/50** (2013.01); **H04L 45/7457** (2013.01); **H04L 61/103** (2013.01);

17 Claims, 5 Drawing Sheets

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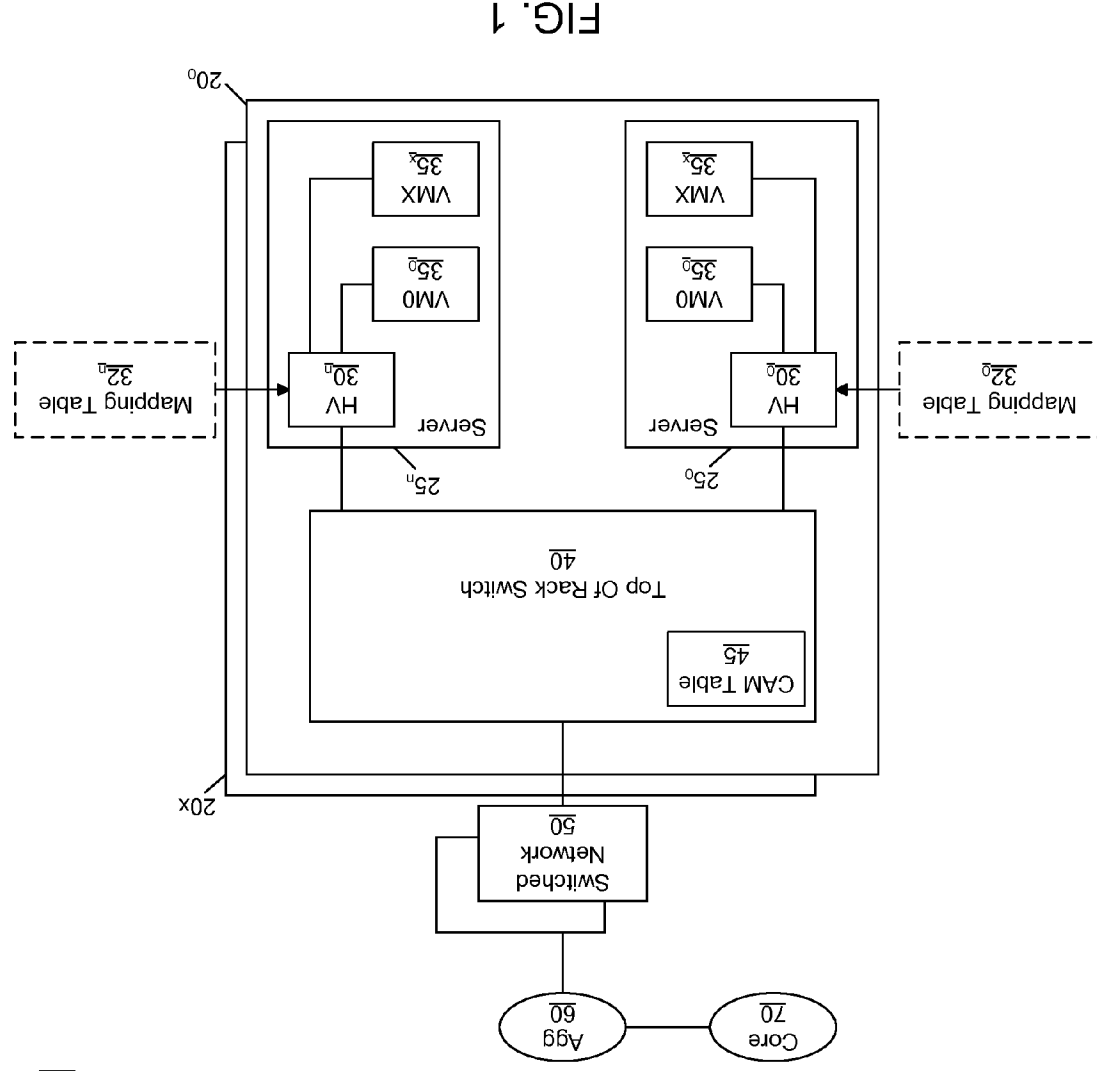
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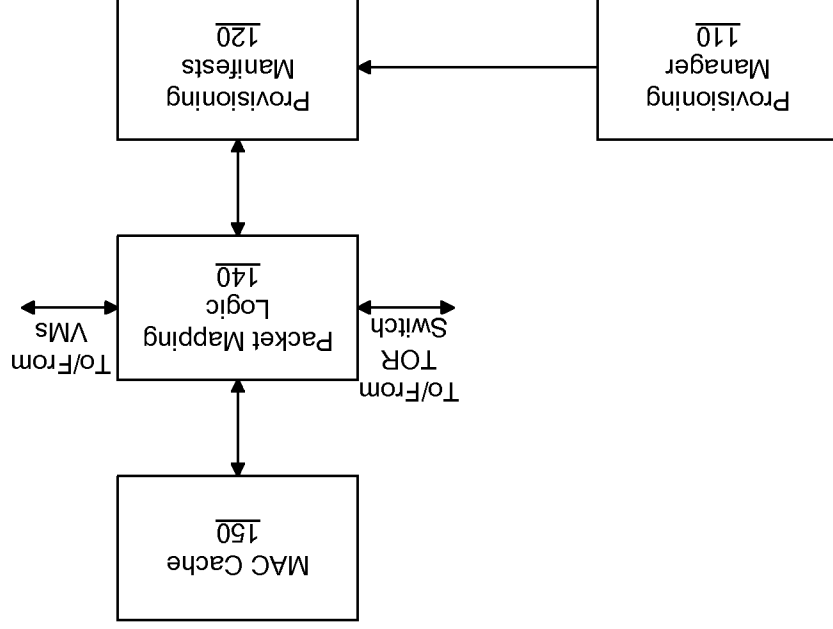


FIG. 2

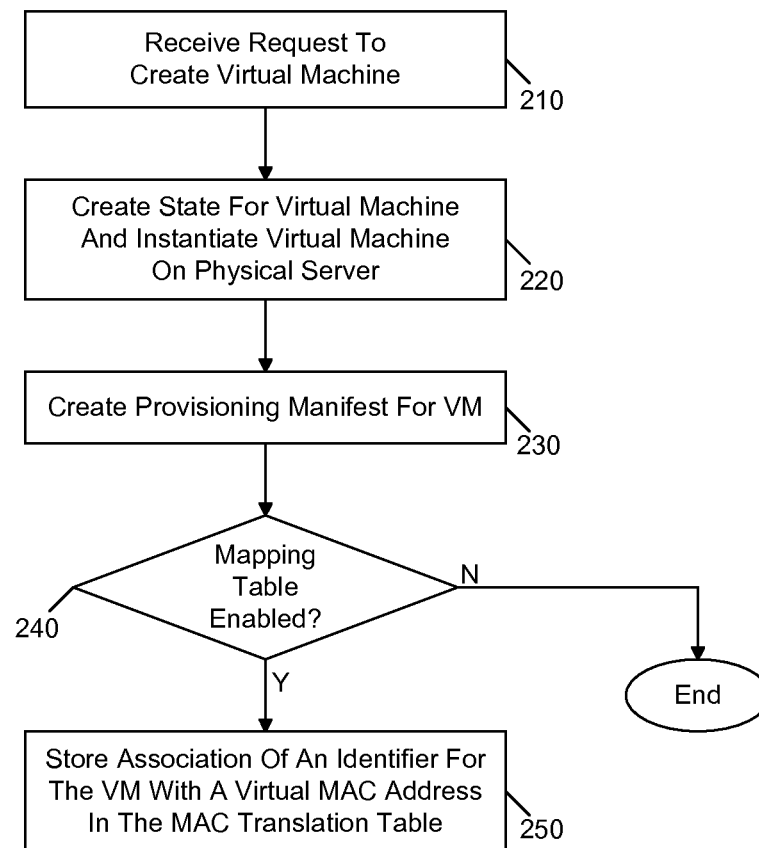
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FIG. 3

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