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(54) **ELASTIC SCALING OF SOFTWARE-DEFINED DISTRIBUTED LOAD BALANCERS ACROSS CLOUDS**

(71) Applicant: **VMware LLC**, Palo Alto, CA (US)

(72) Inventors: **Aman CHAUHAN**, San Jose, CA (US); **Srinivasa Srikanth PODILA**, Bangalore (IN); **Lakshmana Murthy MANTHA**, Pleasanton, CA (US); **Vivek KALYANARAMAN**, San Jose, CA (US)

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(57) **ABSTRACT**

An example method of performing a scaling operation for a distributed load balancer in a multi-cloud system includes: initiating, by a controller of the distributed load balancer, a scaling operation targeting a plurality of clouds in the multi-cloud system; determining, by the controller, implementations of the scaling operation for the plurality of clouds based on networking infrastructures of the plurality of clouds; and executing, by the controller, an implementation of the scaling operation for a first cloud of the plurality of clouds, the implementation including operations of: configuring a network interface on a data plane device of the distributed load balancer and configuring an upstream network of the first cloud.

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Data Plane Device 2 | Data Plane Device 1 | Controller Device

Application hosted here — 402

Initiate scale out — 404

Locate data plane device — 406

Push application state to device 2 — 408

Update application state on device 1 — 410

App state updated — 412

414 — DP programming for application on network interface — 416

ACK that application is ready to accept traffic on device 2 — 418

Application scale out complete — 420

Application hosted on both data plane devices 1 and 2