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12/641,280 17 December 2009 (17.12.2009) US(71) Applicant (for all designated States except US): **AMAZON TECHNOLOGIES, INC.** [US/US]; P.O. Box 8102, Reno, NV 89507 (US).(72) Inventors: **JUDGE, Alan, M.**; 1200 12th Avenue South, Suite 1200, Seattle, WA 98144-2734 (US). **MCGAUGH, David, J.**; 1200 12th Avenue South, Suite 1200, Seattle, WA 98144-2734 (US). **HAMILTON, James, R.**; 1200 12th Avenue South, Suite 1200, Seattle, WA 98144-2734 (US). **PIETSCH, Justin, O.**; 1200 12th Avenue South, Suite 1200, Seattle, WA 98144-2734 (US). **O'MEARA, David, J.**; 1200 12th Avenue South, Suite 1200, Seattle, WA 98144-2734 (US).(74) Agent: **URIBE, Mauricio, A.**; Knobbe Martens Olson & Bear, LLP, 2040 Main Street, Fourteenth Floor, Irvine, CA 92614 (US).

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(54) Title: DISTRIBUTED ROUTING ARCHITECTURE

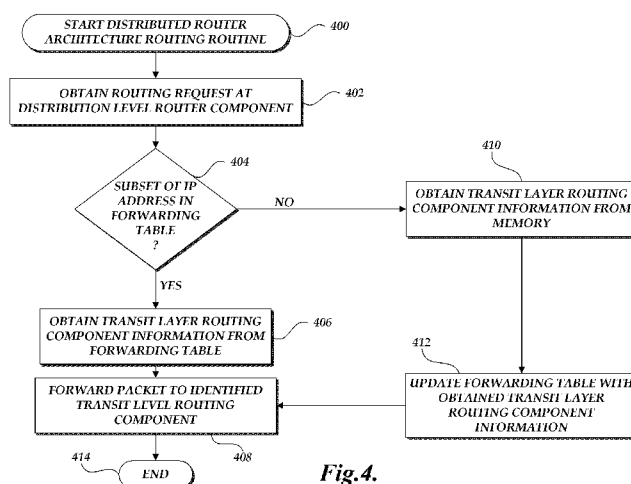


Fig.4.

(57) Abstract: A hierarchical distributed routing architecture including at least three levels, or layers, for receiving, processing and forwarding data packets between network components is provided. The core level router components receive an incoming packet from a network component and identify a distribution level router component based on processing a subset of the destination address associated with the received packet. The distribution level router components that receiving a forwarded packet and identify a transit level router component based a second processing of at least a subset of the destination address associated with the received packet. The distribution level router components maintain address routing information a first and second memory. The transit level router components receive the forwarded packet and forward the packet to a respective network. The mapping, or other assignment, of portions of the FIB associated with the distributed routing environment is managed by a router management component.