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## (57) Abstract:

Embodiments of the present disclosure relates to a system (100) and method (300) for dynamic allocation of public IP addresses to network flow by applying policy-based routing and address pool management techniques. The system (102) comprises a processor (202) coupled to a memory (204). The memory (204) stores processor-executable instructions. The processor (202) is configured to receive a network flow from a plurality of devices. Next, the processor (202) is configured to determine if the network flow matches a network policy. Thereafter, the processor (202) is configured to assign a public IP address to the network flow if the network flow matches the network policy. In the end, the processor (202) is configured to route the network flow based on the network policy and the assigned public IP address.

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