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(54) **EFFECTIVE SEEDING OF CRC FUNCTIONS FOR FLOWS' PATH POLARIZATION PREVENTION IN NETWORKS**

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(57) **ABSTRACT**

A network element is configured to efficiently load balance packets through a computer network. The network element receives a packet associated with flow attributes and generates a Load Balancing Flow Vector (LBFV) from the flow attributes. The network element partitions the LBFV into a plurality of LBFV blocks and reorders the LBFV blocks to generate a reordered LBFV. The LBFV blocks are reordered based on a reordering sequence that is different from reordering sequences on other network elements in the computer network. The network element hashes the reordered LBFV to generate a hash key for the packet and selects a next hop link based on the hash key. The next hop link connects the network elements to a next hop network element in the computer network.