

ABSTRACT

QUEUING SYSTEM TO PREDICT PACKET LIFETIME IN A COMPUTING DEVICE

Techniques are disclosed for a queuing system for network devices. In one example, a network device includes a plurality of memories and processing circuitry connected to the plurality of memories. The plurality of memories includes a local memory of processing circuitry and an external memory to the processing circuitry. The processing circuitry is configured to receive an incoming network packet to be processed, wherein the network packet is held in a queue prior to processing and determine a predicted lifetime of the network packet based on a dequeue rate for the queue. The processing circuitry is further configured to select a first memory from the plurality of memories based on the predicted lifetime and store the network packet at the first memory in response to selecting the first memory from the plurality of memories.

(fig. 11)