Taming Tail Latency and Achieving Predictability with Intel® Ethernet 800 Series with ADQ

Twitter users expect to see personalized real-time content. Multiply that expectation by 186 million people - plus any data traffic spikes around entertainment, sports and political events - and you can understand why data speed and predictability are key to keep the world connected in the moment without interruptions and delays. Twitter was looking to accelerate Pelikan Cache, a modular caching framework, which separates performance-sensitive processing from less performance-sensitive processing. That's where Intel® Ethernet 800 Series with built-in ADQ comes in. It accelerates Twitter’s proprietary Pelikan cache by assigning dedicated lanes to data that do not have to be shared with other traffic.

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The Intel Ethernet 800 Series Network Adapter with ADQ technology did an outstanding job in reducing tail latency of RPC requests over a broad range of sizes and connection counts. The consistent reduction in tail latencies is the biggest improvement I've seen in a decade, to the point that I think we should upgrade our cache SLO to match.”

Yao Yue, Senior Staff Engineer, Twitter