

David Snyder

I'm planning to investigate packet classification, which is where a router identifies a packet as being part of a preexisting "flow" of communication between a client and a server. For example, a firewall identifies a packet as part of the same flow and allows or denies access based on the soft state concerning that flow rather than having to reevaluate the rules on every packet one by one. This is traditionally done by looking at a number of fields in the packet, including the source and destination addresses and ports. I'm planning to look at some newer proposed algorithms for speeding up the traditional process.

This is an interesting topic as it's an active area of research as the traditional technique is relatively expensive and slow and the fast identification of flows is highly desirable for realtime applications which need a guaranteed quality of service.

I am planning to write a paper.