CS 6480: Class discussion summary
HA 5.b

José Monterroso

School of Computing, University of Utah

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Discussion summary

- *Summary:* The first big topic that was discussed was that this paper was entered to a workshop. I missed that workshop papers would generally be shorter, and will be a bit different than papers we have read in the past. Next we jumped into the abstract, specifically the part that mentions their goal. A point was brought up stating that it's a bit odd for them not to elaborate on their papers goal in the later sections. Even though they do in my opinion meet their goal, it's a bit odd that they didn't bring their goal up as a point of reference or motivation in the later sections. In the Introduction section one thing that I missed was the difference in the use of network functions compared to other papers we have read. In previous papers there were more complex processes for NFV compared to this paper that dealt with packet forwarding. The key characteristics of OpenNetVM was the use of a polling system, bypassing the Kernel, and Zero copy. What I missed here was that in order for you to bypass the Kernel and do things the way you want them to be done you need to do a lot of low level things yourself. For example memory management of packets. Lastly, I'd like to mention the class confusion on the similarities and differences between service chains and flows. The paper made them seem interchangeable, but a few points were brought up that they weren't.
- *Strengths and weaknesses:* The consensus of the class seemed to favor the paper. A strength that was brought up was the abstract. It was a strength in the sense that it described the problem, offered a solution and talked a little about the outcome. We also thought their related works was a strength because it did a good job of presenting competing apps and how OpenNetVM solved their flaws. A few weaknesses that were discussed related to how the design principles were very similar to the design requirements for NFV in previous papers we have read. This lead us to believe that they were a bit lazy in their approach. Another weakness was brought up that their execution was a bit too narrow. They took all these different pieces and put them together. A thought was brought up on how many new things they really did or contributed to NFV research.
- *Connection with other work:* There were a few general connections to other papers. Like NFV from our previous paper, and using Docker to create containers. DPDK was also brought up from one of our previous papers on NFV.
- *Future work:* It was brought up that their orchestration and containers were all located within a single node. Ideally this could be expanded to orchestrating multiple nodes.