Experiences Evaluating DC-TCP

Tuesday, 13 November 2018 11:35 (35 minutes)

In this talk we describe our experiences in evaluating DC-TCP. Preliminary testing with Netesto uncovered issues with our NIC that affected fairness between flows, as well as bugs in the DC-TCP code path in Linux that resulted in RPC tail latencies of up to 200ms. Once we fixed those issues, we proceeded to test in a 6 rack mini cluster running some of our production applications. This testing demonstrated very large decreases in packet discards (12 to 1000x) at a cost of larger CPU utilization. In addition to describing the issues and fixes, we provide detailed experimental results and explore the causes of the larger CPU utilization as well as discuss partial solutions to this issue.

Note: We plan to test on a much larger cluster and have those results available before the conference.

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