## Cover Letter

Last year, we presented SAND, a distributed stream processing system for network traffic. This year, we dedicate to propose stream algorithms atop SAND. This report includes LD-Sketch, an algorithm for real-time detecting two typical anomalies in network traffic. Besides, we are still working on another algorithm for traffic classification, which is not included because it is not completed yet. In our future work, we hope to use these algorithms to motivate the design of our underlying design of the system.