Network Monitoring and Analytics with sFlow - Abstract LA-UR-21-27427 Conner Whitfield

Monitoring is a vital part of any production environment, as metrics provide insight into errors, failures, high utilization, and more critical data that is essential for ensuring system stability. sFlow is one of these metric tools that demonstrates production value for various monitoring capabilities for the Los Alamos National Laboratory (LANL) high-performance computing (HPC) production network environment. sFlow provides a wide variety of monitoring metrics when deployed on switch stacks, such as Arista and Cumulus, including CPU utilization, memory utilization, various interface I/O metrics, and more. This variety of metrics, combined with sFlow's Prometheus support and capability for custom metrics, shows that sFlow meets the production monitoring needs, integrates with existing Splunk monitoring infrastructure, and can replace custom monitoring scripts used to gather this same information. This presentation will describe the processes and challenges of implementing a production network monitoring solution that utilizes sFlow, Telegraf, sFlow-RT, and Prometheus.