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## Linux Perf advancements for compute intensive and server systems

*Tuesday, September 10, 2019 12:00 PM (45 minutes)*

Modern server and compute intensive systems are naturally built around several top performance CPUs with large amount of cores and equipped by shared memory that spans a number of NUMA domains. Compute intensive workloads usually implement highly parallel CPU bound cyclic codes performing mathematics calculations that reference data located in the shared memory. Performance observability and profiling of these workloads on such systems have unique characteristics and impose specific requirements on software performance tools. The requirements include tools CPU scalability, coping with high rate and volume of collected performance data as well as NUMA awareness. In order to fulfill that requirements a number of extensions have been implemented in Linux Perf tool that are currently a part of the Linux kernel source tree:

<https://marc.info/?l=linux-kernel&m=154149439404555&w=2>,

<https://marc.info/?l=linux-kernel&m=154149439404555&w=2>,

<https://marc.info/?l=linux-kernel&m=155293062518459&w=2> .

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