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TRIDENT Tool for collecting and understanding performance hardware counters

Monday, May 14, 2018 3:00 PM (20 minutes)

Trident, a tool to use low level metrics derived from hardware counters to understand Core, Memory and I/O utilisation and bottlenecks. The collection of time series of these low level counters does not induce significant overhead to the execution of the application.

The Understanding Performance team is investigating on a new node characterisation tool, ¹Trident¹, that can look at various low level metrics with respect to the Core, Memory and I/O. Trident uses a three pronged approach to analysing node¹s utilisation and understand the stress on different parts of the node based on the given job. Currently core metrics such as memory bandwidth, core utilization, active processor cycles, etc., are being collected. Interpretation of this data is often non intuitive. The tool preprocesses the data to make the data usable by developers and site managers without the need of in-depths expertise of CPU and systems architecture details.

Desired length

15

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