

Software for the Exascale

Keynote Address

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Abstract:

For the last two years scientists have been planning for the immense challenges of moving to the exascale era. Some profound changes to the system software will be required to reach exascale. Key design issues will include a massive intranode parallelism, power management, advanced run-time systems, and fault management. From the programming model to the system software, large changes are necessary. One of areas that needs re-examination are the boundaries between operating system, low-level messaging, threads, and run-time systems. This talk will explore the future needs of exascale software and adapting to the new models.