

Intel(tm) 80-core Tera-scale Research Processor
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The Intel® Tera-scale Computing Research Program is a worldwide research effort to create platforms for the next decade that embrace a shift to massive parallelism through scalable multi-core architectures, platforms and software which use 10s to 100s of cores to efficiently process hundreds of threads and terabytes of data. This presentation will describe Intel's research vision and how the 80-core Teraflops Research Processor advances this vision with a tiled design, and on-chip interconnect fabric, and innovations in energy management that deliver exceptional power efficient performance. The presentation will present key features of the design, power and performance measurements, and will review challenges and key lessons from coding key software kernels on this research prototype.