

Verification of the QorIQ Communication Platform Containing CoreNet Fabric with SystemVerilog

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The Freescale QorIQ(tm) communication platforms are system-on-chip (SoC) processors containing single, dual and many cores and enable the next era of networking by offering advanced levels of performance, power-efficiency and programmability.

The QorIQ P4080 communications processor, the signature member of the product line, integrates eight enhanced Freescale Power Architecture(r) processors, a tri-level cache hierarchy, and innovative high-speed CoreNet(tm) fabric and data path acceleration. The CoreNet fabric is an interconnect architecture suitable for scalable on-chip network to connect multiple Power Architecture processing cores with caches, stand-alone caches and memory subsystems.

The CoreNet fabric was designed to provide a coherent multicore migration solution enabling the move to multicore. This presentation will focus on the verification challenges and solutions associated with verifying the CoreNet platform using SystemVerilog (SV).