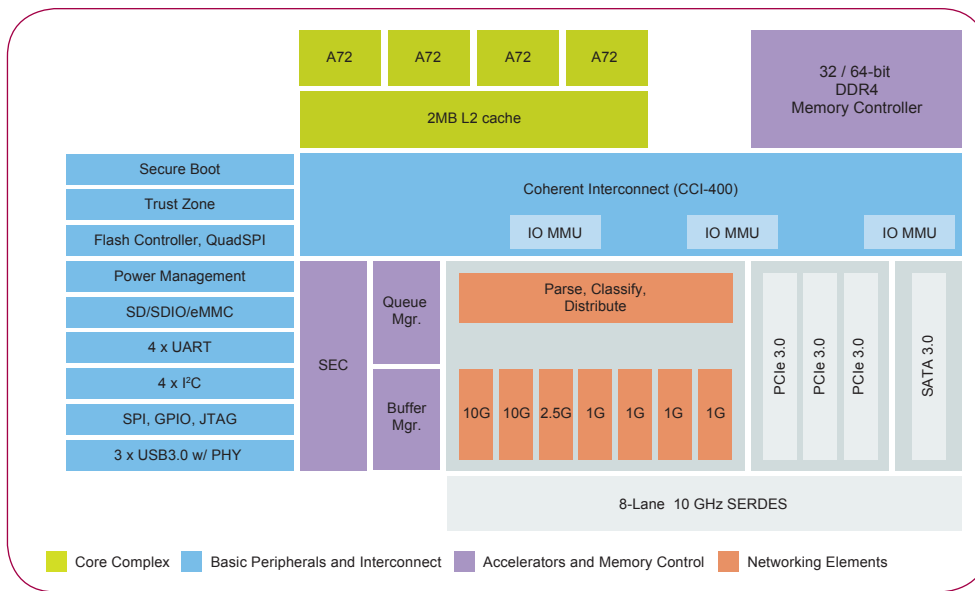


## QorIQ LS1046A PROCESSOR BLOCK DIAGRAM



## QorIQ LS1046A FEATURES

Features	Benefits
Four ARM® Cortex®-A72 cores 2 MB L2 cache	<ul style="list-style-type: none"> <li>Performance in excess of 32,000 CoreMarks®</li> <li>Total power under 10 W at 1.2 GHz for convection cooled designs</li> </ul>
Packet processing acceleration	<ul style="list-style-type: none"> <li>Efficient packet classification and distribution; hardware work scheduling, shaping, and buffer management, offloading the general purpose processors to concentrate their processing cycles on value added operations.</li> </ul>
Integrated security engine	<ul style="list-style-type: none"> <li>High-speed security protocol processing, including IPsec, SSL, DTLS, and IKE</li> <li>SEC also supports high speed XORing for RAID 5 acceleration</li> </ul>
ARM TrustZone® and NXP QorIQ trust architecture	<ul style="list-style-type: none"> <li>Secure boot, secure debug, tamper detection, secure key storage</li> </ul>
Rich connectivity <ul style="list-style-type: none"> <li>Two 10 Gigabit Ethernet controllers</li> <li>One 2.5 Gigabit Ethernet controller</li> <li>Four 1 Gigabit Ethernet controllers</li> <li>Three PCIe® 3.0 Controllers, x 4, x 2, x 1</li> <li>Three USB 3.0 with integrated PHY</li> <li>SATA 3.0 controller</li> <li>Quad SPI</li> </ul>	<ul style="list-style-type: none"> <li>High versatility that enables support for 802.11ac modules and high bandwidth connectivity for ASICs, 4G/LTE, SATA and low-cost NAND/NOR Flash</li> <li>Multiple USB 3.0 for redundant WAN fail over, storage and configuration</li> <li>Advanced XFI, Quad SGMII for maximum Ethernet flexibility</li> </ul>
Support for hardware-based virtualization	<ul style="list-style-type: none"> <li>Enables partitioning of physical and virtual resources on LS1046A multicore devices for increased system flexibility</li> </ul>

[www.nxp.com/QorIQ](http://www.nxp.com/QorIQ)

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