



Innovating and Integrating for Communications and Storage

Embedded and Communications Group
February 2010

What is the News?

Intel Embedded Customers Unveil Products Based on New Intel® Xeon® Processor C5500/C3500 series

“Jasper Forest” Processors with Integrated I/O Prove Ideal for Communications and Storage Applications

Processors are paired with the Intel 3420 chipset and are ideal for communications, embedded, networking and storage applications

New Intel® Xeon® Processors C5500/C3500 for Embedded, Communications and Storage



Innovate

Integrate

**Robust
Performance**
Lower System Power

**27 WATT
SAVINGS***

**Integration for
Savings**

**REAL ESTATE
AND POWER**

**Workload
Consolidation**

4 TO 1

Formerly codenamed "Jasper Forest"

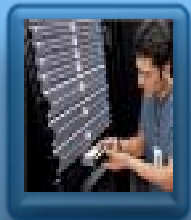
* Configurations of the systems used in the benchmark: two Intel® Xeon® processors LC5528, 2.13GHz, 60W TDP, with Intel® 3420 chipset versus two Intel Xeon processors L5528, 2.13 GHz, 60 W TDP, with Intel® 5520 chipset



Lower Power, Higher Integration and Reduced Foot Print



Communications



Storage



Military/Aerospace



Advanced TCA*
200W

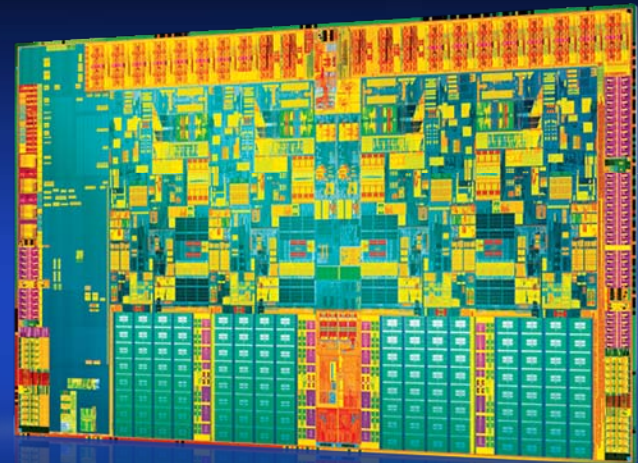


Storage Bridge Bay
60W-200W



Compact PCI
50-100W

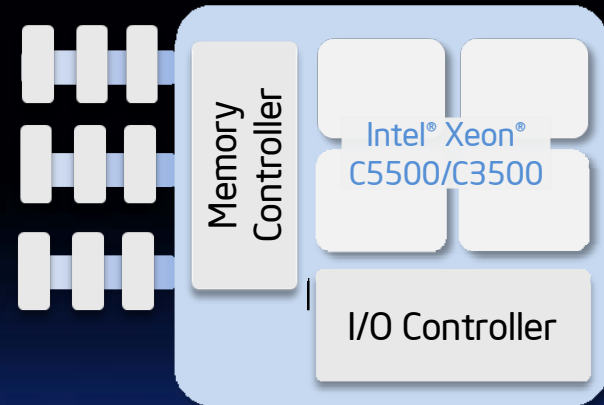
Integration of I/O into the
Intel® Xeon® processors
C5500/C3500



Feature Overview

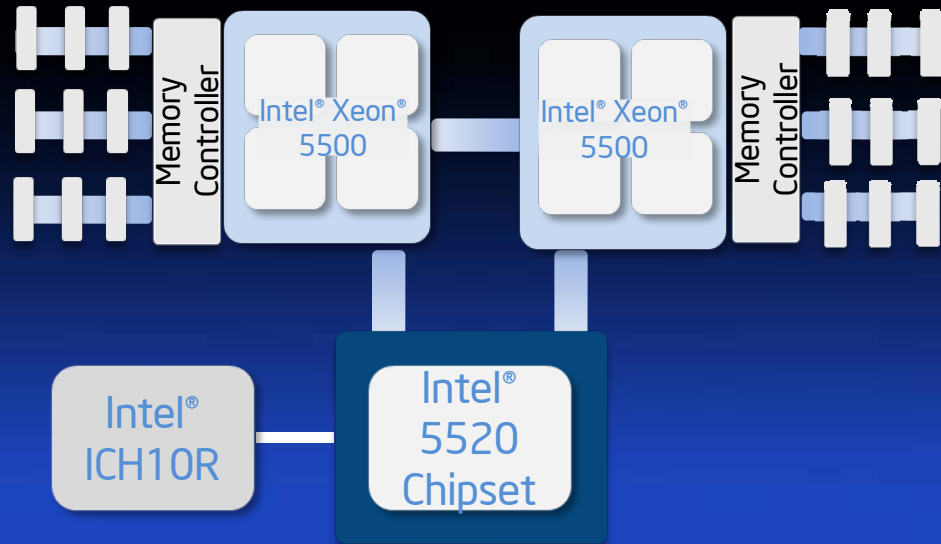
Innovate and Integrate

- Based on Intel® microarchitecture, formerly codenamed Nehalem
- Integrated PCIe* Gen 2.0 I/O in processor
- Less power consumption
- Crystal Beach Direct Memory Access (DMA)
- Non-Transparent PCI-E* Bridging (NTB)
- Hardware RAID acceleration
- High TCASE for NEBs and other thermal certifications
- 7 Year Lifecycle, 10 Year Reliability

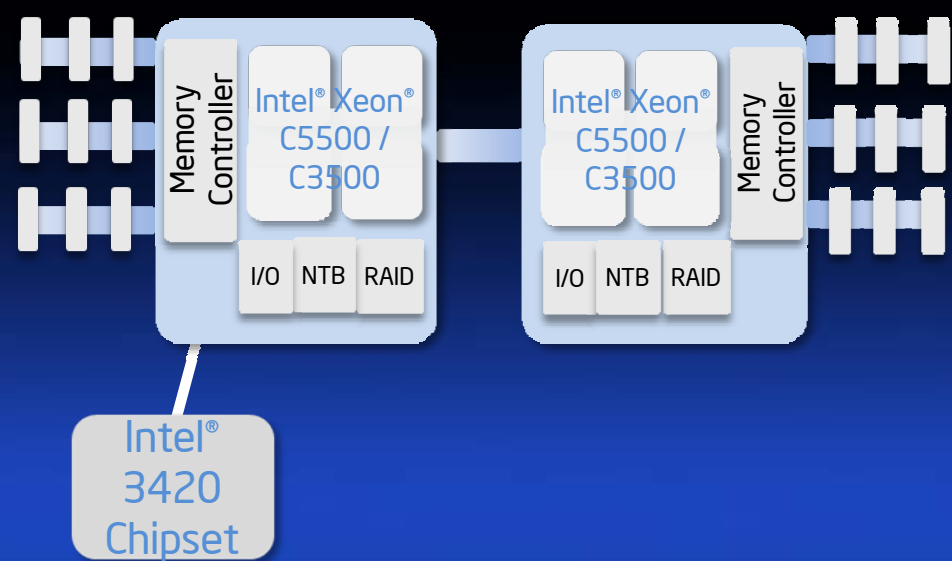


Integration

Intel® Xeon® Processors 5500 Series



Intel® Xeon® Processors C5500/C3500 Series



**Provides a 27 watt system
power savings**

* Configurations of the systems used in the benchmark: two Intel® Xeon® processors LC5528, 2.13GHz, 60W TDP, with Intel® 3420 chipset versus two Intel Xeon processors L5528, 2.13 GHz, 60 W TDP, with Intel® 5520 chipset

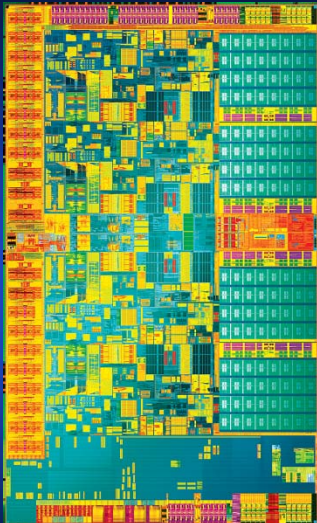
Scalability

Same Architecture

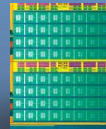
1 - 4 Cores
23W - 85W

One Common Socket

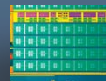
Intel®
Microarchitecture
(Nehalem)
45nm



48 to 85
watts



35 to 65
watts



23 watts



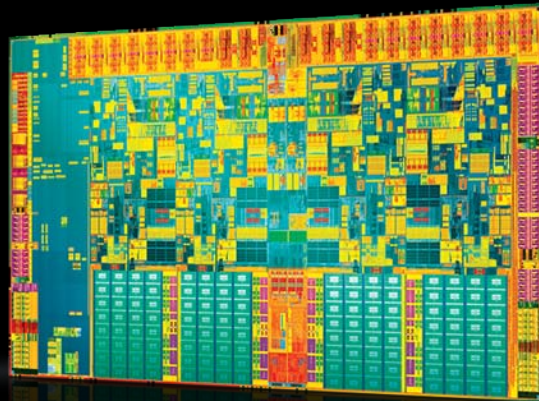
Embedded, Storage, Communications and Networking Customers unveiling products with Intel® Xeon® Processor C5500/C3500 series

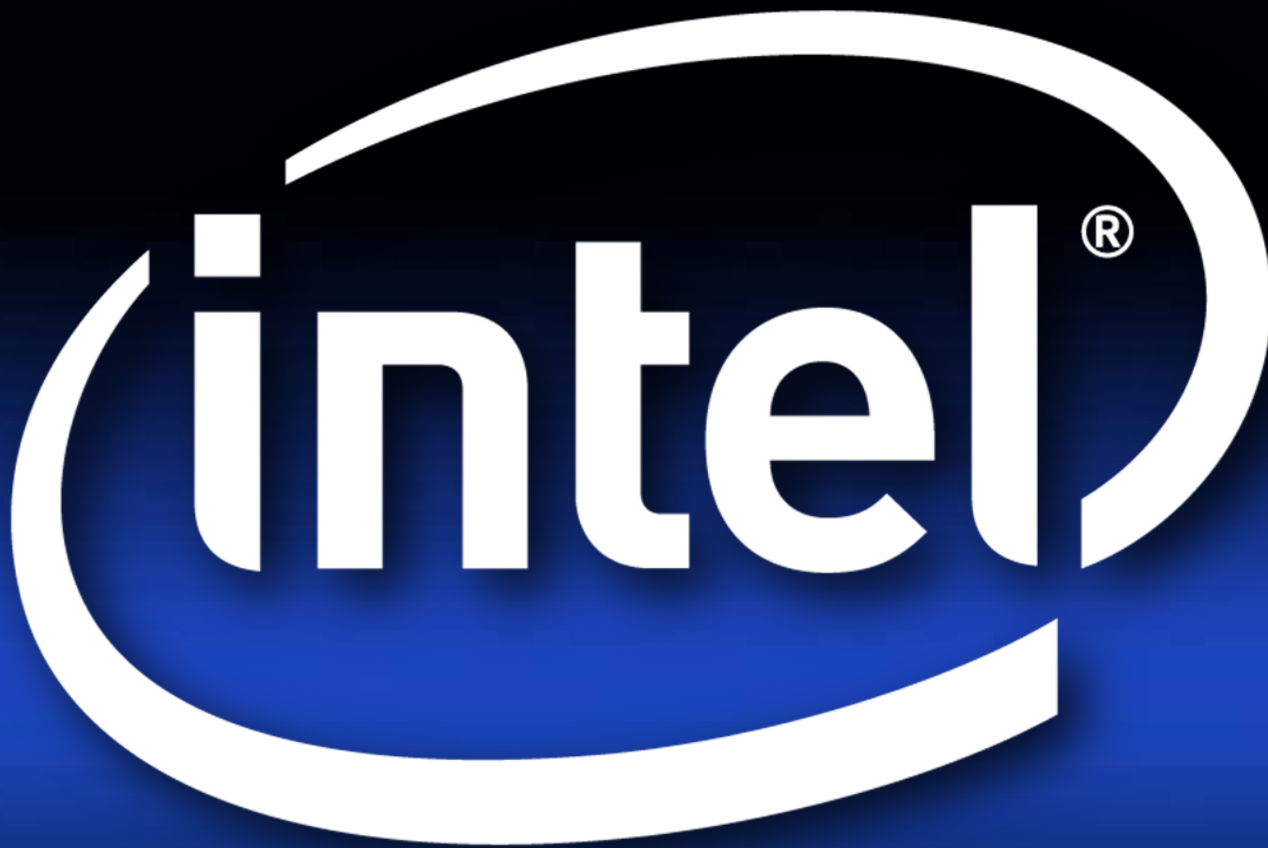


Summary

Intel® Xeon® Processors C5500/C3500 Series Delivers Lower Power with Higher Integration

- Robust performance with a 27 watt system power savings
- I/O Hub Integration for real estate and power savings
- Workload consolidation



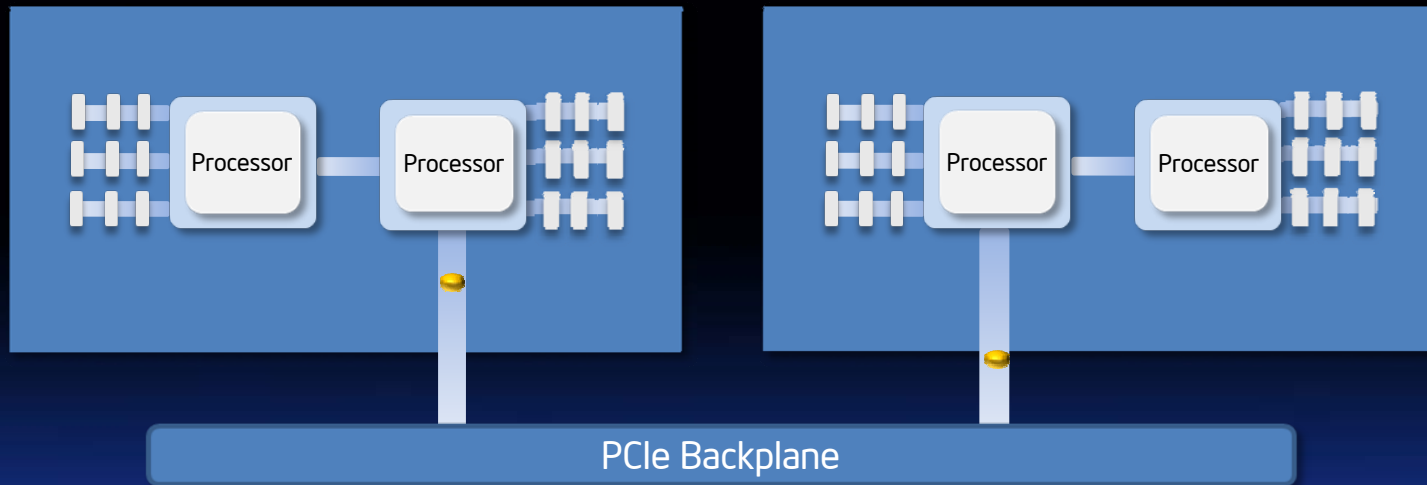


Intel® Xeon® Processor C5500/C3500 Series Platform

Processor	Thermal Design Power	Base Clock Speed	Cores / Threads	1 ku Pricing
Intel® Xeon® processor EC5549	85W	2.53 GHz	4 / 8	\$530
Intel® Xeon® processor EC5509	85W	2.00 GHz	4	\$265
Intel® Xeon® processor EC3539	65W	2.13 GHz	4	\$302
Intel® Xeon® processor LC5528	60W	2.13 GHz	4 / 8	\$519
Intel® Xeon® processor EC5539	65W	2.27 GHz	2	\$387
Intel® Xeon® processor LC5518	48W	1.73 GHz	4 / 8	\$519
Intel® Xeon® processor LC3528	35W	1.73 GHz	2 / 4	\$302
Intel® Xeon® processor LC3518	23W	1.73 GHz	1	\$192

Chipset	Thermal Design Power	1 ku Pricing
Intel® Xeon® 3420 chipset	4.7 W	\$31

Non-Transparent Bridge (NTB) Benefits



- Enables failover for redundant systems (as shown above)
- Can connect two uni-processor systems and function as dual-processor
- Ability to connect to a non-IA system without a PCIe switch

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