
intel
CISCO Unified Computing System
IT'S NOT JUST
WHAT WE MAKE
IT'S WHAT WE
MAKE POSSIBLE
ramzi.abdul.baki@intel.com

History of great innovations pushing technology forward.

Earned market trust by delivering on promises and recognized as IT leaders.

Stable and secure companies, with large footprint in your IT infrastructure.

Global markets reach, unique engineering expertise, and solid customer support.

Share a common vision of Billions of connected devices.

Combined $10B R&D Budget / year

Strong Partnership

Innovation | Trust | Secure | Scale

cisco

intel

A History Of Collaboration

Next Gen Datacenter

Unified Computing System

Client Mgmt/Security

Network Admission Control

Wireless Connectivity

Ethernet Evolution

Verified For Centrino

Business Class Wireless Suite

802.11n

WiMAX OPA & IOT

EtherChannel

InterSwitch Link

Gigabit Ethernet

Data Center Ethernet

FCoE

1995

2000

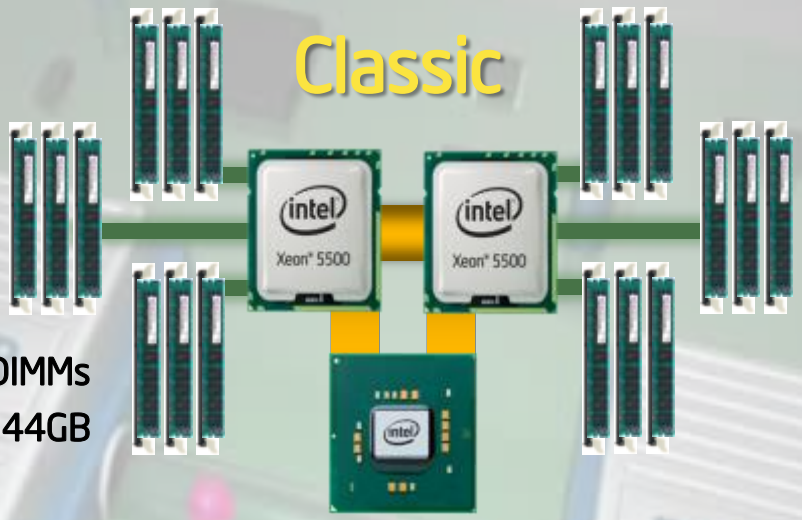
2005

2009

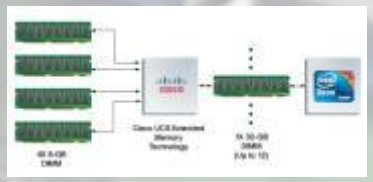
Collaboration Across UCS Platform

	Intel brings	Cisco delivers
Memory	Xeon with integrated memory controller	Memory extender technology
Unified Fabric	DCE compliant 10GbE controller	10GbE Unified fabric solution
Virtualization	Xeon 5500 with enhanced VT-c and VTx2 virtualization capabilities	VN-Link solution and Hypervisor bypass (VT-d)
Power Management	Xeon 5500 with 5x low power states	Innovative chassis and system level power management

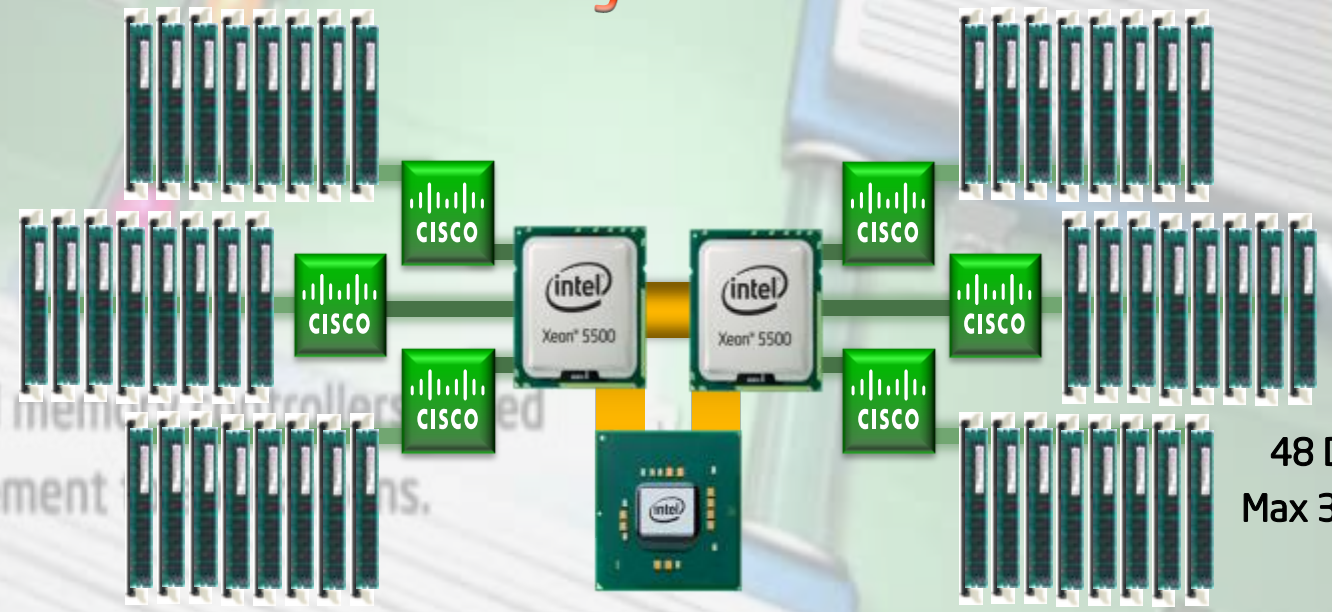
Classic



18 DIMMs
Max 144GB



Cisco UCS With Memory Extension



48 DIMMs
Max 384GB

CISCO

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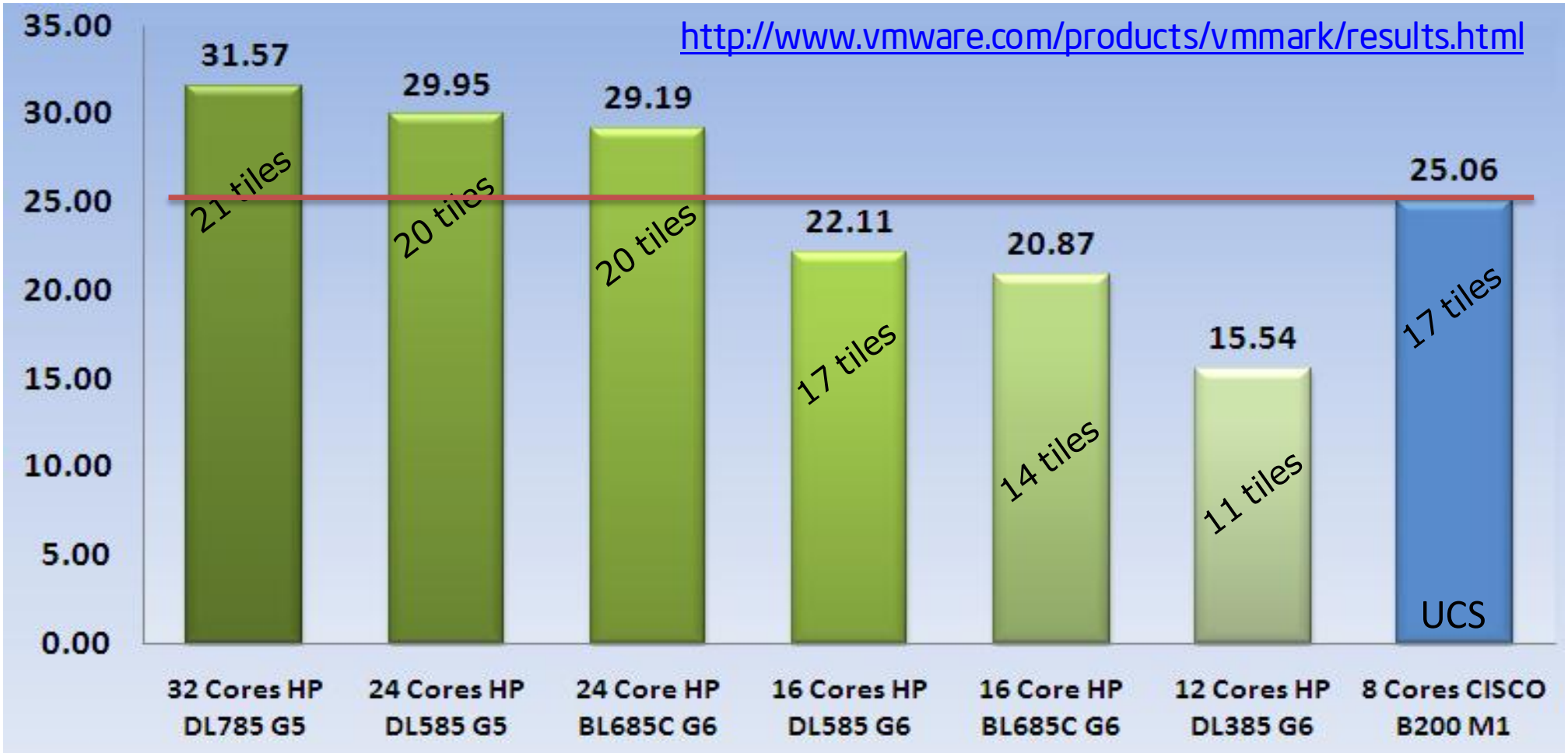
VMMARK V1.1.1 VMWARE ESX V4.0



32nm Investment

$7 BILLION

Over 2 Years

D1D Oregon

D1C Oregon

Fab 32 Arizona

Fab 11X New Mexico

Intel® Xeon® 5500 Processor

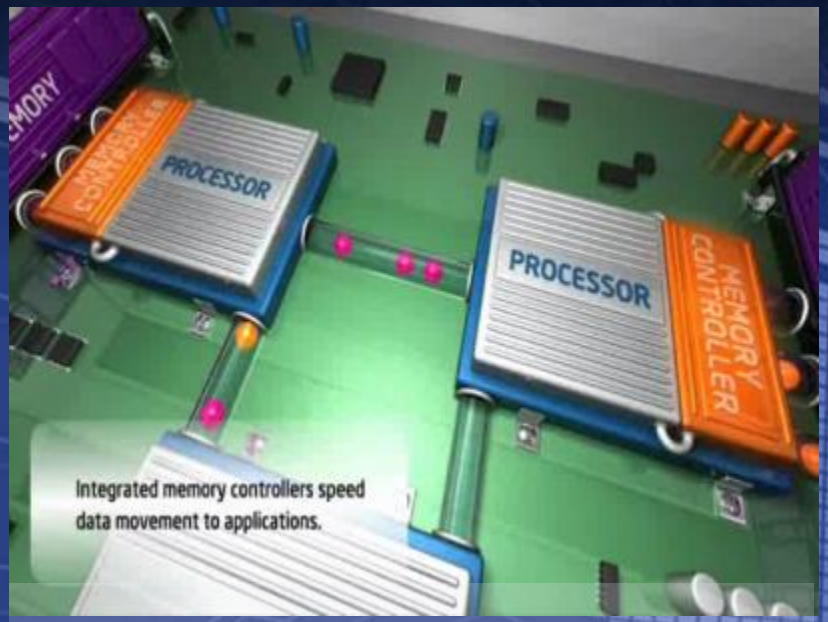
45/32 nm Hi-K Multi-Core Processor

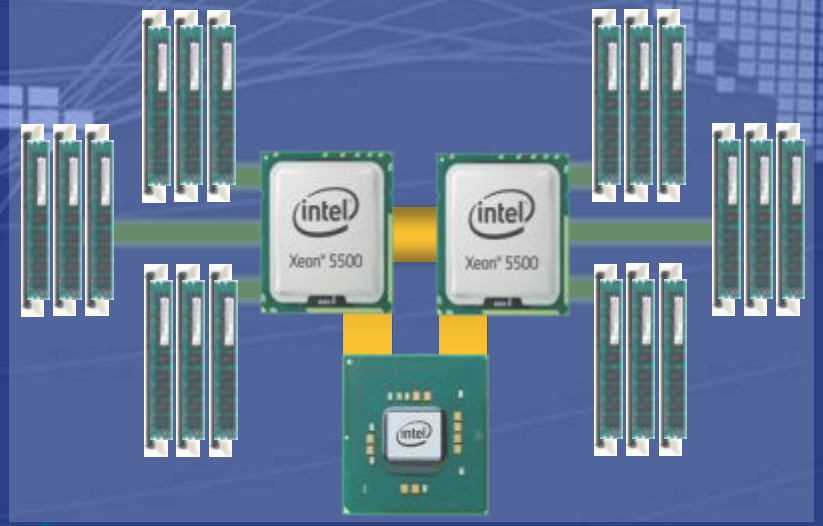
- Intelligent Performance
- Adaptable Energy Efficiency
- Flexible Virtualization

A New Generation of Intelligent Server Processors

intel

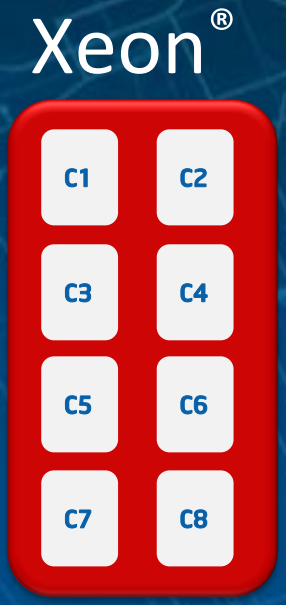
Intel® Xeon® Technologies

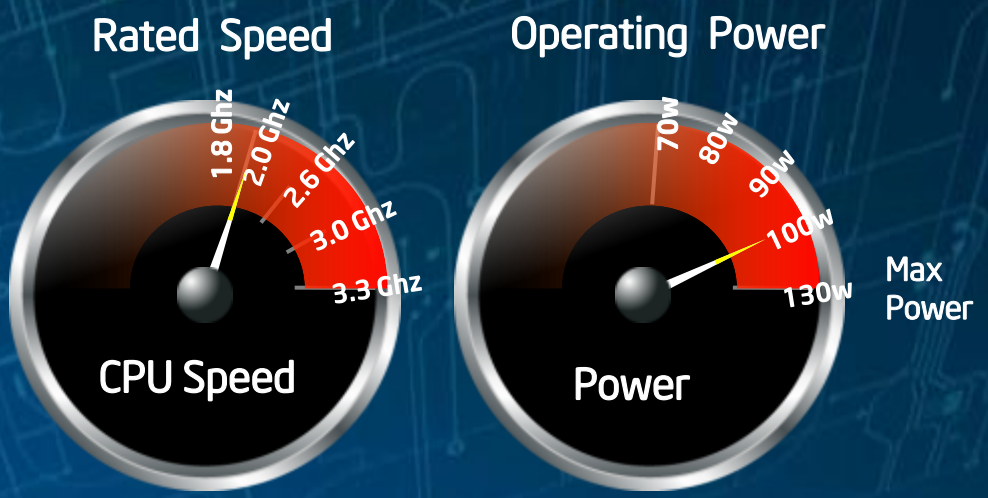




- Adaptable Energy Efficiency
  - Intel® Turbo Boost Technology
- Intelligent Performance
  - Integrated Memory Controller
  - Intel® Hyper Threading
  - Intel® QuickPath Interconnect
- Flexible Virtualization 2nd Gen
  - VT-d
  - VT-c

Intel® Turbo-Boost Technology

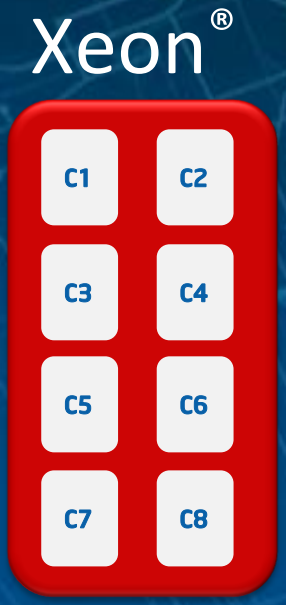


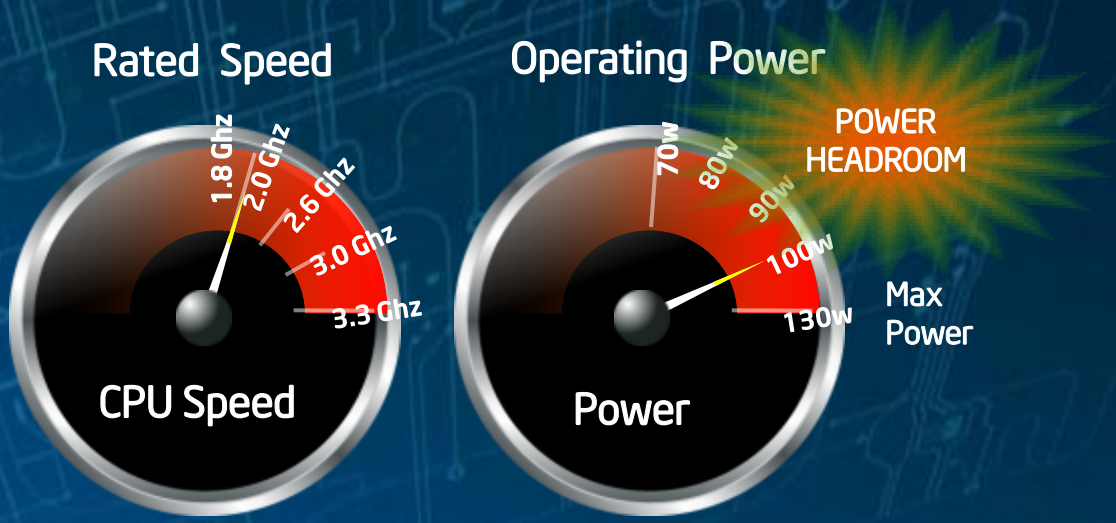


CPUs typically operate at a fixed max frequency regardless of the workload

For the most demanding workloads, the CPU operates closer to its power limitations

Intel® Turbo-Boost Technology



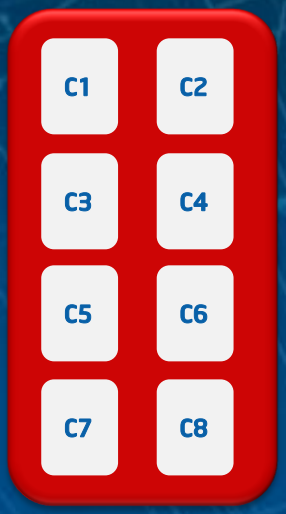


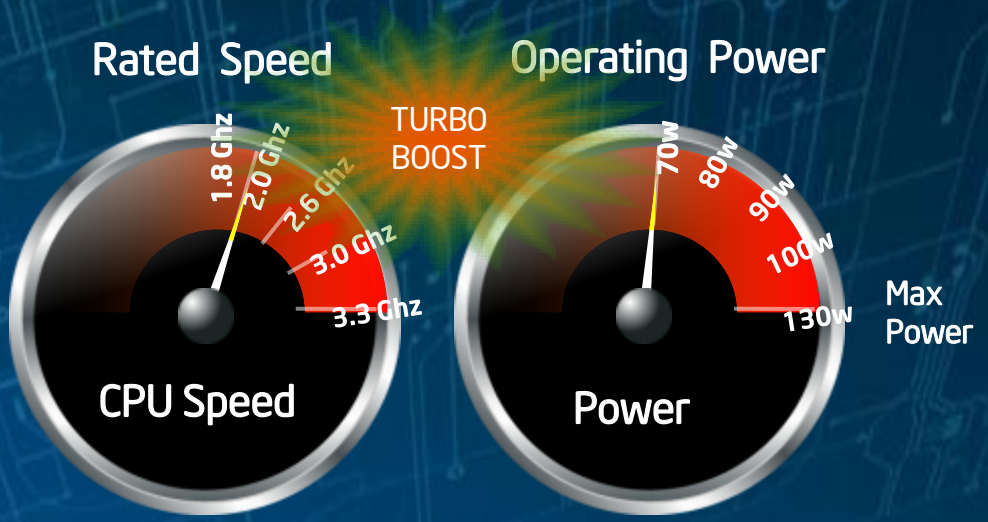
However, most applications allow the CPU to operate below maximum power

Power headroom may also be available if cores are in idle mode

Intel® Turbo-Boost Technology

Xeon®

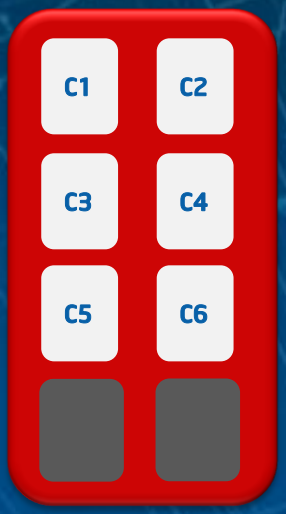


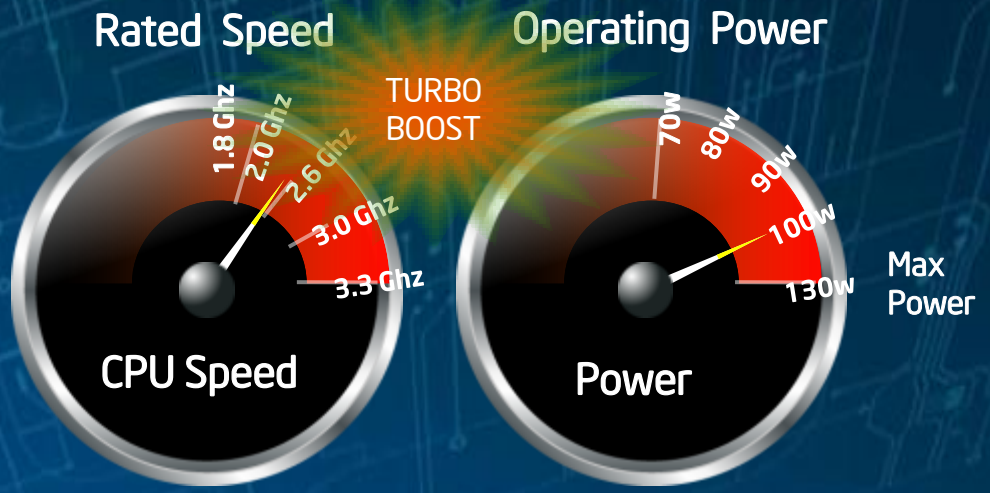


Turbo Boost speeds up the CPU to utilize any available power headroom

Intel® Turbo-Boost Technology

Xeon®





Turbo Boost speeds up the CPU to utilize any available power headroom

With fewer cores active and more headroom, the CPU can reach even higher frequencies

Intel® Turbo Boost Technology

Intelligent Performance & Energy Efficiency

Intel® XEON Processor, 2Ghz

ALL Workloads

Highly Threaded Workload < TDP 2.26Ghz for all 4 Cores

Lightly-Threaded Workload < TDP 3.06Ghz for 2 active Cores

Single-Threaded Workload < TDP *3.20Ghz for 1 active Core*

Nehalem Architecture Featuring Intel Turbo Boost Technology³ Enables A Dynamically Scaled Performance Boost

Intel® Turbo Boost Technology³ Monitor is a Microsoft* Windows (32 & 64 bit) gadget that displays turbo frequency changes in the sidebar.

Lead Free Halogen Free Intel product.

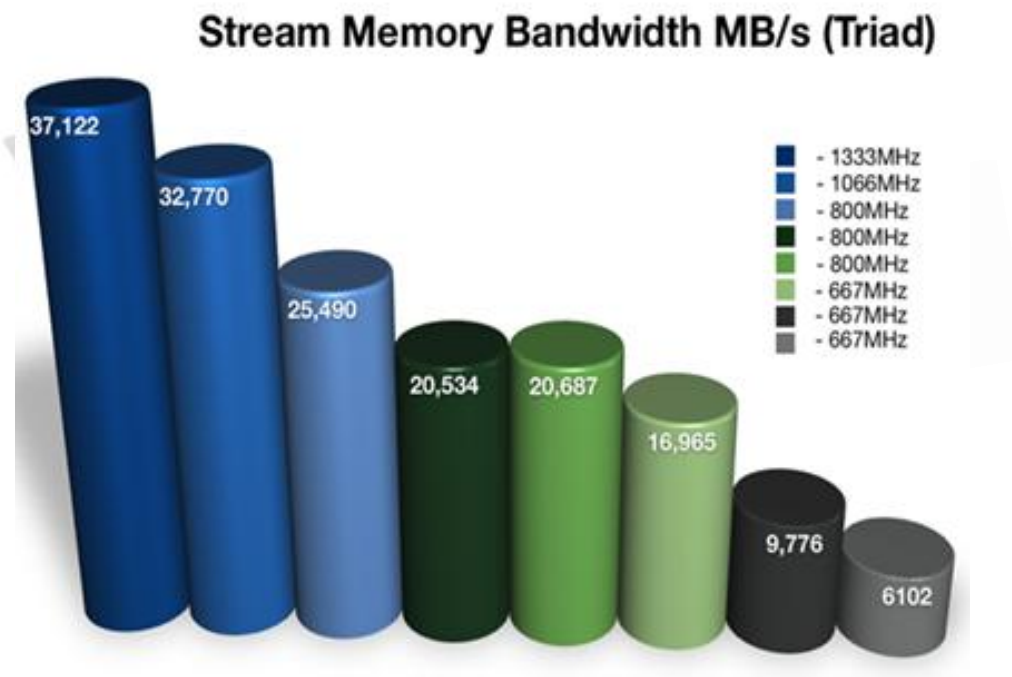
Intel® Hyper-Threading Technology

For Better Multitasking

2 thread engines per core, enabling 8-way processing in 4-core systems. It means that a quad-core processor could run up to eight threads simultaneously

How many threads can my CPU run simultaneously ?

Intel® NAND Technology

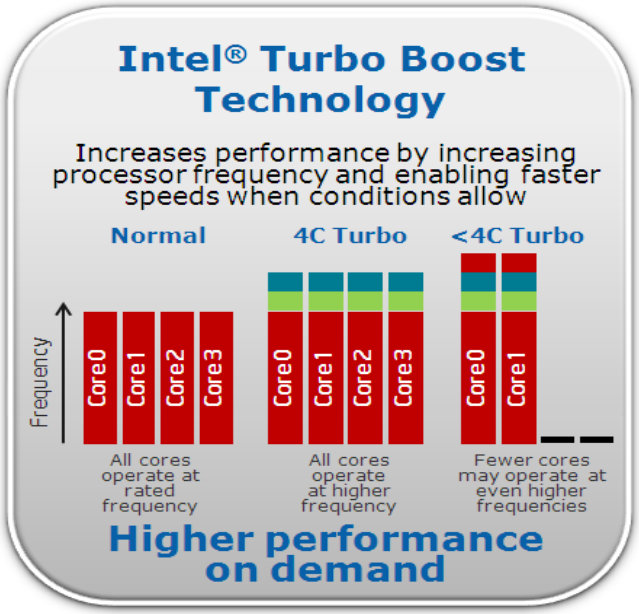


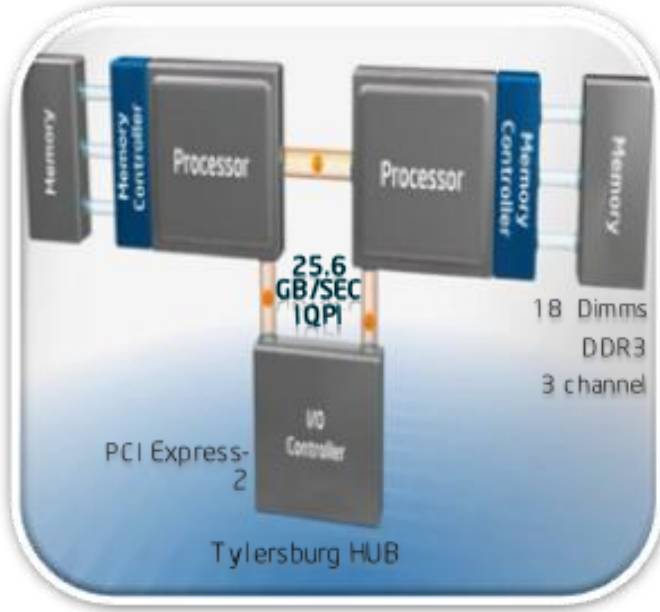
Performance
Reliability
Silent Operation
Power efficiency
Form factor Flexibility

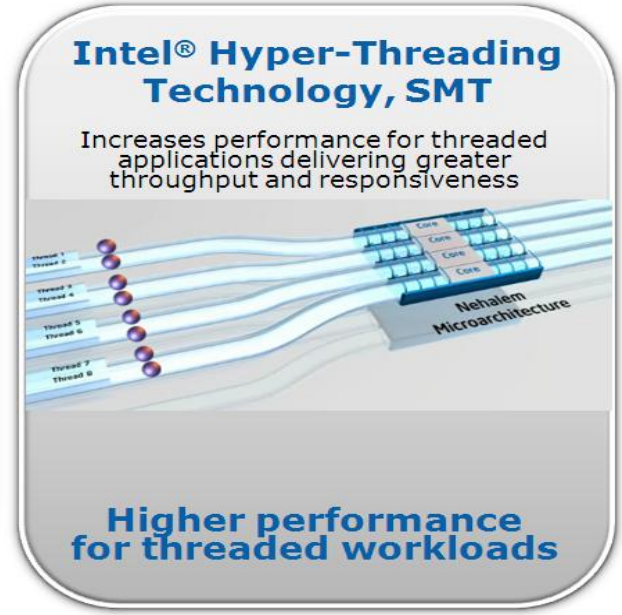
10GBE

Bridging the gap between
1GbE and Infiniband®

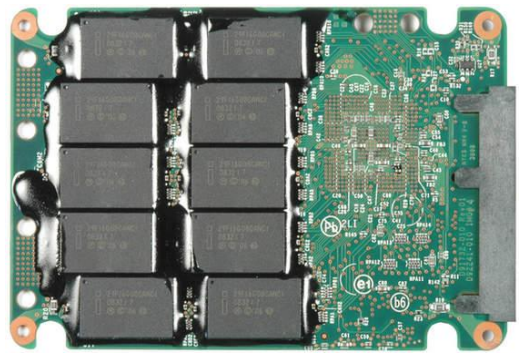
Intel® Technology + cisco



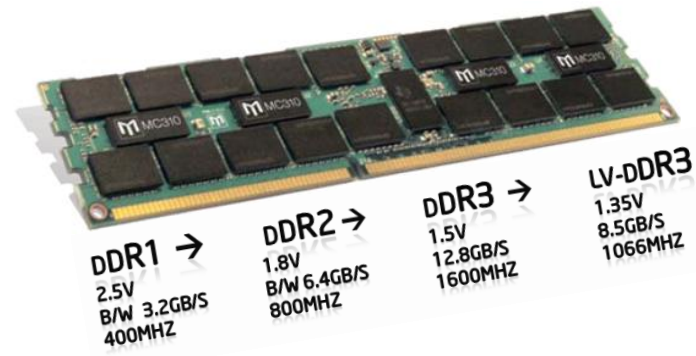




10GBE



SSD



cisco VTx, VTi FlexPriority accelerator, VTc I/O Chipset accelerator, VTd NIC, Flex-Migration, EPT.....

Intel® + UCS is your Cloud Foundation

- Intelligent DC Resources Utilization
- Intelligent Cloud Solution
- Efficient Power Consumption/Cooling
- Echo Friendly and Space Efficient
- Less Complexity and Management

Ad Hoc Structured UCS

Thank You

Ramzi.Abdul.Baki@intel.com