



## SPARC to Intel Xeon Processor/Solaris Migration

Performance, Costs and Management: A Global Win for CME\* Datacenters

\*Communication, Media & Entertainment

### SPARC-based platforms limitations

As with any other RISC-based systems, Sun™ SPARC platforms are no longer best performers: their performance is between two to four times lower than other systems.<sup>1</sup> Systems designed on proprietary technologies offer **limited hardware and software choices and have limited vendor support**. In addition, they are also more expensive to maintain. As Sun servers get more expensive, renewing data center equipment with Sun servers may become too large an investment for a reduced IT budget.

A TCO comparison over three years shows that ProLiant with Intel® Xeon® processors costs as much as 67 percent less than a comparable Sun SPARC platform.

### Intel® Xeon® processors on HP ProLiant alternative

Switching to Intel Xeon processors-based HP ProLiant servers holds clear benefits at all levels of the infrastructure:

• Processor:

Intel Xeon processors are based on the industry-leading 45-nm high-K technology. This helps to dramatically increase processor efficiency and equates to more powerful computing experiences and greater flexibility of design. Therefore, switching from RISC to Intel Xeon processor promises **better performance, lower cost, greater OS flexibility for applications and systems, lower power consumption, cooling demand, and maintenance requirements** compared to SPARC-based systems.

• Server:

HP ProLiant servers come in standard blade, rack, and tower configuration and **support every major OS -Windows, Linux, and now Solaris 10-**, offering a basis for a complete infrastructure. The C7000 and BladeSystem design represent a truly superior system design, and cost 60 percent less than comparable SPARC servers<sup>1</sup>.

• Processor and Server:

Together with Intel Xeon processors, the HP ProLiant option can be as much as 75 percent less expensive than Sun SPARC servers, as shown below.

• Applications:

By choosing standards-based Intel architecture, developers have a wide choice of vendors for components and subsystems, with the advantage of cost-effective pricing and interoperability.

• Operation:

HP also offers **management tools, virtualization software, accessories, storage, and networking products and services** to make IT management easier on Solaris.

• Total Cost of Ownership (TCO):

The common underlying hardware and software for commercial and carrier grade systems gives HP, Intel, and ecosystem tremendous advantages at every step in product lifecycles. A comparison over three years, run on Intel's RISC Migration TCO Calculator, shows that HP ProLiant servers with Intel Xeon processors cost as much as 67 percent less than a comparable Sun SPARC server.<sup>2</sup>

HP becomes the single point of contact for Solaris 10 on HP ProLiant servers and blade platforms.

<sup>1</sup> Botelho B., Search DataCenter.com, Feb. 2009. "HP offers Sun SPARC shops ProLiant alternative"

<sup>2</sup> HP document, March 2009. "Migrating from Sun™ SPARC to HP ProLiant Servers with Intel® Xeon® processors"

## HP and Sun Agreement

Since 1996, HP has supported and certified Sun's Solaris™ x86 OS on HP ProLiant servers. As HP added management software for Solaris, Sun has extended its support of Solaris Cluster Open Hardware to HP ProLiant servers. On February 25<sup>th</sup>, 2009, responding to customers' demands, HP and Sun Microsystems announced an expanded multi-year partnership agreement that enables HP to distribute Sun's Solaris10 OS on the HP ProLiant server and blade platforms, and provide software technical support.

To further reduce operational costs, Solaris 10 and HP Insight Software on HP ProLiant servers will be integrated to deliver usability and management enhancements. HP becomes a single point of purchase, contact, and accountability for Solaris 10 on HP ProLiant.

## Migrate applications in the CME domain

Migration to x86 platforms seems like a clear option to pursue, and the conditions are now favourable. It can for example answer needs such as how to triple data center capacity without adding to power and space requirements, to more effectively manage high volumes of voice, data, video, and mobility services critical to today's telecommunications customers.

However, this process is difficult to manage for Telecom and Media companies, because of their specific concerns such as long equipment lifecycles, or the necessity to additionally migrate from proprietary, circuit-switched networks to IP-based networks.

As for the Network Equipment Providers (NEP), they are now to contain and eventually reduce operating and capital costs, while migrating to solutions from Original Equipment Manufacturers (OEM) with clear and long-standing roadmaps, to solutions that will offer more processing power, additional services, and a facilitated management.

## HP & Intel Key hardware components

### HP Blade System c7000 Enclosure



The BladeSystem c7000 enclosure provides all the power, cooling, and I/O infrastructure needed to support modular server, interconnect, and storage components today and throughout the next several years. The enclosure is 10U high and holds up to 32 servers or 16 storage blades plus optional redundant network and storage interconnect modules.



The HP Intel Solution Centers provide complete telecom infrastructures for demonstrating the Communications Media and Entertainment Solution Portfolio to HP customers and partners. The centers are located in the three regions: Grenoble, France for EMEA; Richardson, Texas, USA for Americas, and Shanghai, China for APJ. These unrivalled technical facilities offer our customers and partners, the unique opportunity to evaluate new services in real-world environments, test new technologies and select the solutions most likely to succeed.

## Technology for better business outcomes

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For more information, visit <http://www.hpintelco.net>

HP & Intel SPARC Migration in Solaris OS, April 2009.

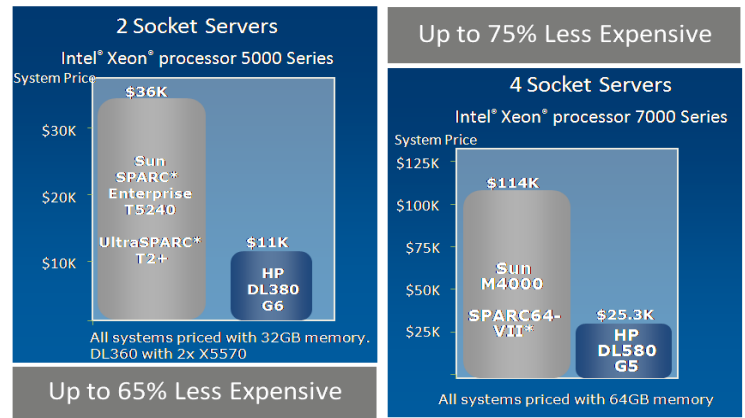


Fig. : Prices of comparable Sun SPARC platforms and HP ProLiant servers with Intel Xeon processors.

## HP Intel Communications, Media and Entertainment (CME) Solution Center's team and facilities

As a joint initiative between HP and Intel, the HP Intel CME Solution Center is playing a key-role in the migration roadmap for service providers and network equipment providers: The team organizes Migration Workshops at engaged customers' sites or in our facilities.

This major step helps define the objectives of the migration project and answers specific questions regarding specific CME domain concerns.

Our data center offers a secure infrastructure for **proof-of-concepts and benchmarks** to adapt, validate, and fine tune the platforms, with more than 400 heterogeneous servers in enclosures that have received a Carrier Grade validation to fit Telecom requirements.

Through Intel sponsorship, and under some conditions, customers benefit from Intel's support to organize workshops, benchmarks, and proof-of-concept experiments which makes it a major tool to reduce the risks in critical migration steps.

### Intel® Xeon® processors

The Intel Xeon processor 5500 series are built with 45nm new Nehalem micro architecture with up to eight cores in a two-processor configuration. This new micro architecture delivers more performance in the same platforms and at the same power consumption, giving customers the flexibility to match performance, power and cost requirements with your unique requirements and delivering advantages beyond just pure performance.

