



HP Integrity rx6600 Server achieves best JOPS<sup>1</sup>/Core in Enterprise Class<sup>2</sup> (> 2000 JOPS<sup>1</sup>) for SPECjAppServer2004 Java™ performance

The new HP Integrity rx6600 Server based on the Scalable Processor Chipset zx2

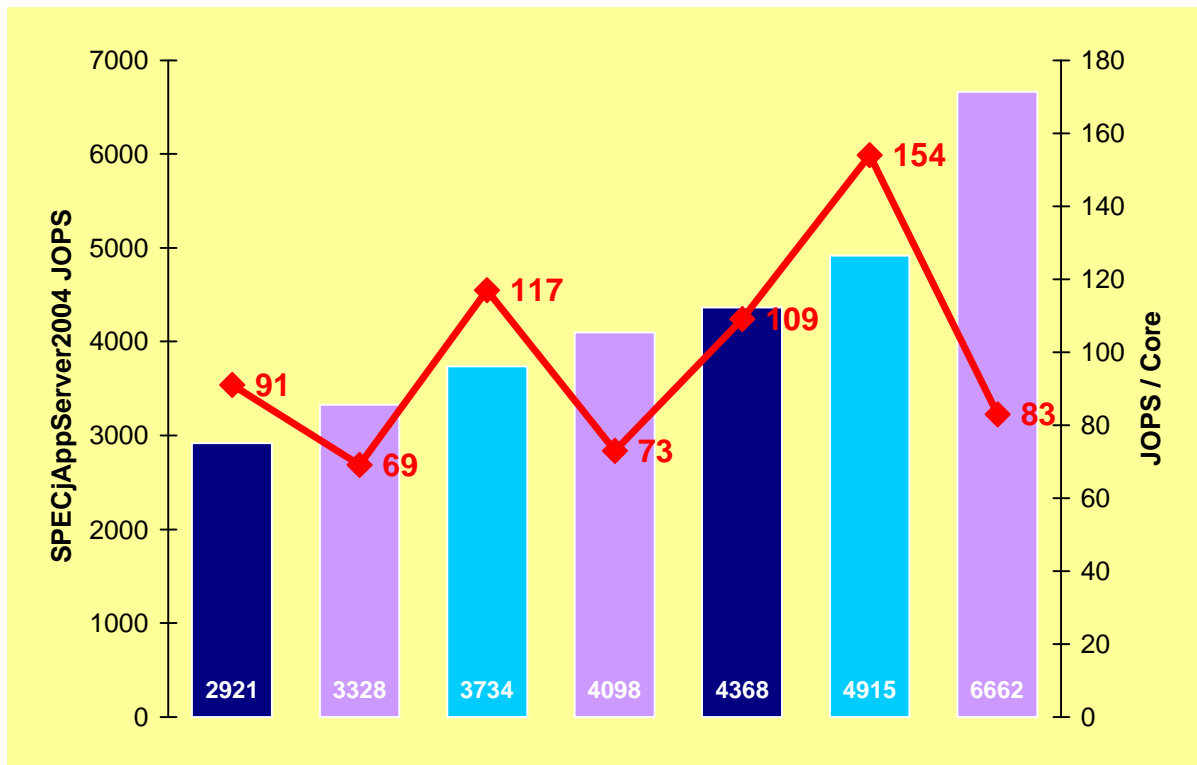


Delivers exceptional performance for Java enterprise application servers

The new HP Integrity rx6600 Server, with dual-core Intel® Itanium® 2 processors, debuts with a world-record 16p/32c SPECjAppServer2004 performance result of 4915 JOPS<sup>1</sup> and the best JOPS<sup>1</sup>/Core for Enterprise Class<sup>2</sup> benchmarks.

The highly expandable entry-class HP Integrity rx6600 Server is an ideal platform for demanding enterprise applications and is particularly suited for workload consolidation and virtualization. It offers superior performance and price/performance when compared to competitive offerings.

Figure 1. The HP Integrity rx6600 Server delivers leadership Enterprise Class<sup>2</sup> SPECjAppServer2004 results.



IBM	Sun	HP	Sun	IBM	HP	Sun
p5	SunFire	Integrity	SunFire	Blade	Integrity	SunFire
p550	T2000	rx4640	T2000	Center	rx6600	X8000
8-node	6-node	Server	7-node	HS20	Server	10-node
16p/32c	6p/48c	8-node	7p/56c	20-node	4-node	40p/80c
		32p/32c		20p/40c	16p/32c	

Table 1. The HP Integrity rx6600 server compared to IBM and Sun Enterprise Class<sup>2</sup> SPECjAppServer2004 benchmark configurations

System configuration	JOPS <sup>1</sup>	JOPS <sup>1</sup> /Core	OS/J2EE Application Server	Comment
IBM p5 p550 (8-node) Power5+ 1.9 GHz 16 processors/32 cores 36 MB off-chip cache	2921	91	SUSE Linux Enterprise Server 9 and IBM WebSphere	The 32-core Integrity rx4640 Server benchmark beats this p550 number by 28%. The Integrity rx6600 Server dual-core Itanium processor with 32 cores beats this number by 68%!
Sun Fire T2000 (6-node) UltraSPARC T1 6 processors/48 cores 3 MB L2 cache	3328	69	Solaris 10 and BEA WebLogic	The Integrity rx6600 Server solution is 47% faster. Sun gives the customer more nodes to manage for less output.
HP Integrity rx4640 Server (8-node) Itanium 1.6 GHz 32 processors/32 cores 9 MB L3 cache	3734	117	HP-UX 11i v2 and BEA WebLogic	JOPS <sup>1</sup> /Core result is second only to dual-core Itanium processor for Enterprise Class <sup>2</sup> benchmarks.
Sun Fire T2000 (7-node) UltraSPARC T1 7 processors/56 cores 3 MB L2 cache	4098	73	Solaris 10 and BEA WebLogic	The Integrity rx6600 Server solution is 20% faster. Sun gives the customer more nodes to manage for less output.
IBM Blade Center (20-node) Xeon™ 3.6 GHz 40 processors/40 cores 2 MB L2 cache	4368	109	SUSE Linux Enterprise Server 9 and IBM WebSphere	The Integrity rx6600 Server solution is 12% faster with 40% better JOPS/Core result. IBM uses 5X more blade nodes and 2.5X more processors—much more for the customer to manage.
HP Integrity rx6600 Server (4-node) Itanium 1.6 GHz dual-core 16 processors/32 cores 12 MB L3 cache	4915	154	HP-UX 11i v2 and BEA WebLogic	31% faster than prior generation of Itanium processors using the same number of cores. Highest JOPS <sup>1</sup> /Core for Enterprise Class <sup>2</sup> benchmarks. 97% scalability from 1 Integrity rx6600 (1266 JOPS <sup>1</sup> ) to 4 rx6600 Servers.
Sun SunFire X8400 (10-node) AMD Opteron® 2.6 GHz 40 processors/80 cores 2 MB L2 cache	6662	83	Solaris 10 and BEA WebLogic	36% higher number than Integrity rx6600 Server result, but uses 2.5X more systems, 2.5X more processors, and 2.5X more cores. The Integrity rx6600 Server has 84% better JOPS <sup>1</sup> /Core result. In addition, note the cost of the configuration <sup>3</sup> .



<sup>1</sup> jAppServer Operations Per Second (JOPS), which is the measurement for the SPECJAppServer2004 benchmark.

<sup>2</sup> Enterprise Class benchmarks are benchmarks with more than 2000 SPECJAppServer2004 JOPS<sup>1</sup>.

<sup>3</sup> This Sun Opteron Blades configuration lists for \$360,000 (as of September 9, 2006) and with more core, costs at least \$240,000 more in BEA WebLogic licenses than the Integrity rx6600 server solution.

### About SPEC

SPECJAppServer is a trademark of the Standard Performance Evaluation Corp (SPEC). Competitive numbers shown reflect results published on [www.spec.org](http://www.spec.org) as of September 15, 2006. For the latest SPECJAppServer2004 results, visit [www.spec.org/osg/jAppServer2004](http://www.spec.org/osg/jAppServer2004). A full disclosure report describing these benchmark results has been filed with the Standard Performance Evaluation Corporation (SPEC). This report describes the benchmark HW and SW configuration in detail. Similar reports from other vendors are the source of the comparisons provided above. Summaries of all tests are published by SPEC and on the SPEC Web site. With these benchmarks, customers can objectively compare the performance of different vendors' servers in specific areas.

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