

Cisco Unified Computing System and Intel Xeon Processors: 70 World-Record Performance Results



Performance Brief
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 In the three years since its introduction, Cisco Unified Computing System™ (Cisco UCS™) powered by Intel® Xeon® processors captured 70 world performance records, with results that were either first to market or exceed those set by vendors of existing systems, including Dell, HP, and IBM (Table 1).

Table 1. World-Record Benchmarks Set by Cisco UCS

World-Record VMware VMmark Benchmarks				
Benchmark	Cisco UCS Server	Publication Date	Result and Disclosure	Record as of Publication Date
VMware® VMmark™ 2.x	C460 M2	9/20/2011	35.06 @35 tiles	Number-one result of any server
	C460 M2	10/4/2011	18.00 @18 tiles	Number-one 4-socket server, 2-node result
	C460 M2	4/5/2011	16.68 @18 tiles	Number-one result of any server
	B200 M3	9/11/2012	42.79 @36 tiles	Number-one result of any server
	B200 M3	9/18/2012	11.32 @10 tiles	Number-one 2-socket blade server
	B200 M2	3/23/2011	7.17 @7 tiles	Number-one 2-socket server
	B200 M2	12/28/2010	6.51 @6 tiles	Number-one overall VMmark 2.0
VMware VMmark 1.x	C460 M1	9/7/2010	76.10 @51 tiles	Number-one server
	C460 M1	5/4/2010	73.82 @50 tiles	Number-one server
	B250 M2	4/6/2010	35.83 @26 tiles	Number-one 2-socket server
	B230 M1	10/19/2010	39.19 @27 tiles	Number-one 2-socket blade server
	B440 M1	7/27/2010	71.13 @48 tiles	Number-one blade server
	B200 M1	4/21/2009	24.14 @17 tiles	Number-one 2-socket server
	B200 M1	1/12/2010	25.06 @17 tiles	Number-one 2-socket server

World-Record Java-Based SPEC® Benchmarks				
Benchmark	Cisco UCS Server	Publication Date	Result and Disclosure	Record as of Publication Date
SPECjAppServer®2004	C250 M2	3/16/2010	5,185.45 SPECjAppServer2004 JOPS@Standard	Number-one 1-node 2-socket server
	B230 M1	9/8/2010	11,283.80 SPECjAppServer2004 JOPS@Standard	Number-one 2-node server
SPECjEnterprise™2010	B440 M2	9/30/2011	26,118.67 SPECjEnterprise EjOPS	Number-one x86-architecture server
	B440 M1	3/9/2011	17301.86 SPECjEnterprise EjOPS	Number-one overall server

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World-Record Java-Based SPEC Benchmarks (Continued)				
Benchmark	Cisco UCS Server	Publication Date	Result and Disclosure	Record as of Publication Date
SPECjbb™2005	C460 M1	3/30/2010	2021525 SPECjbb2005 bops, 126345 SPECjbb2005 bops/JVM	Number-one x86/64 4-socket server
	C260 M2	4/5/2011	1337210 SPECjbb2005 bops, 668605 SPECjbb2005 bops/JVM	Number-one 2-socket server
	C220 M3	3/9/2012	1584567 SPECjbb2005 bops, 792284 SPECjbb2005 bops/2 JVMs	Number-one 2-socket server
	B230 M2	9/30/2011	1,408,935 SPECjbb2005 bops, 704,468 SPECjbb2005 bops/JVM	Number-one 2-socket server
	B440 M2	9/30/2011	2,798,763 SPECjbb2005 bops, 699,691 SPECjbb2005 bops/JVM	Number-one 4-socket server
	B230 M2	6/15/2011	1395684 SPECjbb2005 bops, 697842 SPECjbb2005 bops/JVM	Number-one 2-socket server
	B230 M1	9/25/2010	1017141 SPECjbb2005 bops, 127143 SPECjbb2005 bops/JVM	Number-one x86/64 2-socket server
	B230 M1	9/7/2010	1015802 SPECjbb2005 bops, 126975 SPECjbb2005 bops/JVM	Number-one x86/64 2-socket server
	B200 M1	3/16/2010	624059 SPECjbb2005 bops, 156015 SPECjbb2005 bops/JVM	Number-one x86/64 2-socket server

World-Record SPEC Computing Benchmarks				
Benchmark	Cisco UCS Server	Publication Date	Result and Disclosure	Record as of Publication Date
SPECint®_rate_base2006	C460 M2	4/5/2011	1030	Number-one x86 4-socket server
	C460 M1	3/30/2010	723	Number-one x86/64 4-socket server
	C220 M3	3/6/2012	671	Number-one 2-socket server
	C260 M2	4/5/2011	526	Number-one x86 2-socket server
	B200 M2	3/15/2011	390	Number-one x86 2-socket server
	B200 M2	3/16/2010	355	Number-one x86/64 2-socket server
	B200 M1	4/21/2009	239	Number-one x86/64 2-socket server
SPECfp®_rate_base2006	C460 M1	5/25/2010	549	Number-one x86/64 4-socket server
	C220 M3	3/3/2012	496	Number-one x86/64 2-socket server
	C260 M2	4/5/2011	365	Number-one x86 2-socket server
	B200 M2	3/16/2010	248	Number-one x86/64 2-socket server
	B200 M1	4/21/2009	194	Number-one x86/64 2-socket server

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World-Record SPEC Computing Benchmarks (Continued)				
Benchmark	Cisco UCS Server	Publication Date	Result and Disclosure	Record as of Publication Date
SPECfp®_base2006	C220 M3	3/6/2012	89.9	Number-one 2-socket server
SPECCompL®base2001	C460 M2	4/5/2011	727,635	Number-one 4-socket server
	C460 M1	3/30/2010	607818	Number-one 4-socket server
	C220 M3	3/8/2012	527122	Number-one 2-socket server
	B230 M2	4/5/2011	378,522	Number-one 2-socket server
	B200 M2	3/15/2011	282771	Number-one 2-socket server
	B200 M2	3/16/2010	278603	Number-one 2-socket server
SPECCompM®base2001	C460 M1	3/30/2010	100258	Number-one 4-socket server
	C460 M2	4/5/2011	115,176	Number-one 4-socket server
	C240 M3	3/6/2012	94065	Number-one 2-socket server
	B230 M2	4/5/2011	67,926	Number-one x86 2-socket server
	B200 M2	3/15/2011	52986	Number-one 2-socket server
	B200 M2	3/16/2010	52314	Number-one 2-socket server

Transaction Processing Council Benchmarks				
Benchmark	Server	Publication Date	Result and Disclosure	Record as of Publication Date
TPC-C	C240 M3	9/27/12	1,609,186 tpmC \$0.47 USD per tpmC	Number-one 2-socket server
	C250 M2	12/7/2011	1,053,100 tpmC \$0.58 USD per tpmC	Number-one 2-socket server powered by Intel Xeon processors
TPC-H	C250 M2	2/14/2012	332,482 @100GB \$0.15 USD per QphH@100GB	Number-one 2-socket server at 100GB scale factor
	C250 M2	2/13/2012	331,658 @300GB \$0.34 USD per QphH@300GB	Number-one 2-socket server at 300GB scale factor
	C460 M2	12/7/2011	134,117 QphH@1000GB \$1.30 USD per QphH@1000GB	Number-one 4-socket server powered by Intel Xeon Processors running Microsoft SQL Server

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World-Record Oracle Benchmarks				
Benchmark	Cisco UCS Server	Publication Date	Result and Disclosure	Record as of Publication Date
Oracle E-Business Suite R12 (12.1.3)	B200 M3	9/14/2012	Payroll 839,865 Employees/Hr	Number-one extra-large-model payroll batch
	B200 M3	9/14/2012	Order-to-Cash 232,739 Lines/Hr	Number-one large-model order-to-cash
Oracle E-Business Suite R12 (12.1.2)	B200 M3	9/14/2012	Payroll 835,189 Employees/Hr	Number-one result
	B200 M3	3/6/2012	Payroll 828,729 Employees/Hr	Number-one result
	B230 M2	12/9/2011	Payroll 738,188 Employees/Hr	Number-one extra-large-model 2-socket server payroll batch
	B200 M3	9/14/2012	Order-to-Cash 221,239 Lines/Hr	Number-one result
	B200 M3	3/6/2012	Order-to-Cash 206,044 Lines/Hr	Number-one result
Oracle E-Business Suite 12.0.4	B200 M2	2/23/2011	Payroll 422,535 Employees/Hr	Number-one medium-model payroll batch
	B200 M2	8/21/2010	Payroll 581,846 Employees/Hr	Number-one extra-large-model payroll batch
	B200 M2	8/21/2010	Payroll 368,098 Employees/Hr	Number-one medium-model payroll batch
	B200 M2	8/21/2010	Order-to-Cash 185,643 Lines/Hr	Number-one medium-model order-to-cash

Other World-Record Benchmarks				
Benchmark	Server	Publication Date	Result and Disclosure	Record as of Publication Date
LS-Dyna	C460 M1	3/30/2010	41,727 seconds car2car	Number-one 4-socket server
LINPACK	B200 M2	3/16/2010	146.8 GFlops	Number-one 2-socket server

Architecture Propels Performance

The architectural advantage of Cisco UCS contributes to the system's world-record-setting performance and the timeliness with which Cisco delivers performance results. Cisco UCS is a single unified system that is configured through integrated, model-based management to simplify and accelerate the deployment of enterprise-class applications and services running in bare-metal, virtualized, and cloud-computing environments.

First Unified System

The first unified system available anywhere, Cisco UCS combines industry-standard, x86-architecture servers with networking and storage access into a single management domain that incorporates both blade and rack servers. The system is designed so that server, network, and storage access configuration can be programmed and automated through the system's embedded management features. Customers tuning system performance can reproduce their adjustments rapidly and accurately on additional servers with click-of-the-mouse simplicity.

Performance Breadth

Powered by Intel Xeon processors, Cisco UCS demonstrates performance breadth by setting records for raw CPU power, business- and mission-critical applications, database management systems, Java application servers, virtualization, cloud computing, and high-performance computing (HPC). While all vendors have access to the same powerful Intel Xeon processors, only Cisco unleashes their power to accelerate application performance.

Performance for Customer Applications

For customers, these results mean not only excellent application performance but also a rapid, automated configuration model that speeds application deployment, makes performance predictable, and increases IT productivity. The world records presented in Table 1 can help customers assess how Cisco UCS will perform for their mission-critical applications, while demonstrating the reasons why Cisco has emerged as a server-industry leader.

For More Information

For the most up-to-date information about Cisco UCS performance, please visit <http://www.cisco.com/go/ucsatwork>.

For more information about Cisco UCS, please visit <http://www.cisco.com/go/ucs>.

Disclosures

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VMware VMmark is a product of VMware, Inc. The results cited in this document were made available at <http://www.vmmark.com> as of the dates specified in Table 1.



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