

SPECjbb2013

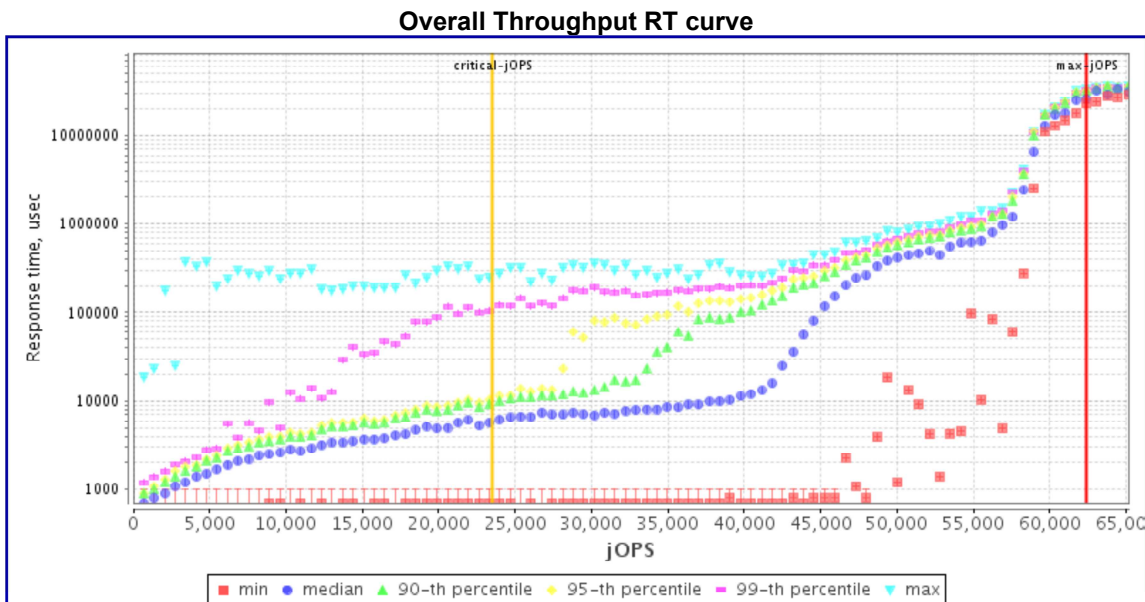
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Cisco UCS B200 M3	62393 SPECjbb2013-MultiJVM max-jOPS 23505 SPECjbb2013-MultiJVM critical-jOPS			
Tested by: Cisco Systems ()	Test Sponsor: Cisco Systems	Test location: San Jose, CA	Test date: September 3, 2013	
SPEC license #: 9019	Hardware Availability: September -2013	Software Availability: September-2013	Publication: MMM DD, YYYY	

Benchmark Results Summary

SPECjbb2013
-MultiJVM:
Multiple
JVMs/Single
Host
(# of groups:
2)

[Overall SUT Description](#)
[SUT Description](#)
[max-jOPS and critical-jOPS Details](#)
[Number of probes](#)
[Request Mix](#)
[Accuracy](#)
[Rate Of Non-Critical Failures](#)
[Delay between performance status pings](#)
[IR/PR](#)
[Accuracy](#)
[Topology](#)
[SUT Configuration](#)
[Properties](#)
[Validation](#)
[Details](#)



Overall SUT (System Under Test) Description

Vendor	Cisco Systems
Vendor URL	http://www.cisco.com
System Source	Single Supplier
System Designation	Blade Server
Total Systems	1
All SUT Systems Identical	YES
Total Nodes	1
All Nodes Identical	YES
Nodes Per System	1
Total Chips	2
Total Cores	24
Total Threads	48
Total Memory Amount (GB)	128
Total OS Images	1
SW Environment	Non-virtual

SUT Description

Hardware hw_1		Operating System os_1	
Vendor	Cisco Systems	Vendor	Red Hat
Vendor URL	http://www.cisco.com/	Vendor URL	http://www.redhat.com/
Available	September-2013	Version	Red Hat Enterprise Linux Server release 6.4 (Santiago)
Model	Cisco UCS B200 M3	Available	Feb-2013
Form Factor	1U	Bitness	64
CPU Name	Intel Xeon E5-2697 v2	Notes	None
CPU Characteristics	12-Core, 2.70GHz (Turbo Boost Technology up to 3.50 GHz)	Java Virtual Machine jvm_1	
Number of Systems	1	Vendor	Oracle Corporation
Nodes Per System	1	Vendor URL	http://www.oracle.com
Chips Per System	2	Version	Java HotSpot(TM) 64-Bit Server VM on Linux, version 1.7.0_40
Cores Per System	24	Available	September-2013
Cores Per Chip	12	Bitness	64
Threads Per System	48	Notes	note
Threads Per Core	2	Other Software other_1	
Version	None	Vendor	None
CPU Frequency (MHz)	2700	Vendor URL	None
Primary Cache	32 KB(L)+32 KB(D)on chip per core	Version	None
Secondary Cache	256 KB (L+D) per core	Available	None
Tertiary Cache	30MB (L+D) on chip per chip	Bitness	None
Other Cache	None	Notes	None
Disk	1x 100GB SSD		
File System	ext4		
Memory Amount (GB)	128		
# and size of DIMM(s)	16 x 8192MB		
Memory Details	2RX4 PC3-14900R-13-12-E2, running 1866MHz (A0,A1,B0,B1,C0,C1,D0,D1,E0,E1,F0,F1,G0,G1,H0,H1 memory slots populated)		
# and type of Network Interface Cards (NICs)	1 X 10 Gbit NIC		
Power Supply Quantity and Rating (W)	Four 2500W, 208V single-phase, hot-swappable, redundant power supplies		
Other Hardware	None		
Cabinet/Housing/Enclosure	None		
Shared Description	None		
Shared Comment	None		
Tuning	None		
Notes	None		
Other Hardware network_1			
Vendor			
Vendor URL			
Version			
Available			
Bitness			
Notes			

max-jOPS and critical-jOPS Details

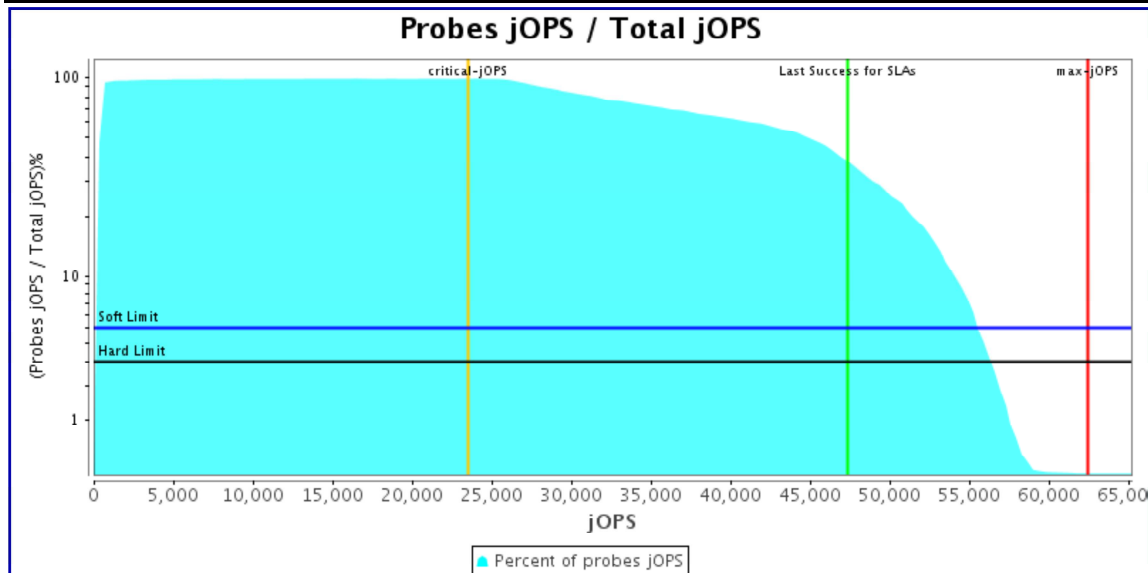
max-jOPS = jOPS passed before the First Failure						
Pass/Fail	Pass	Pass	Fail	Fail	Fail	
jOPS	61708	62393	63079	63765	64450	
critical-jOPS = Geomean (jOPS @ 10000; 50000; 100000; 200000; 500000; SLAs)						
Response time percentile is 99-th						
SLA (us)	10000	50000	100000	200000	500000	Geomean
jOPS	9942	17484	21597	40110	47652	23505

Last Success jOPS/First Failure jOPS for SLA points

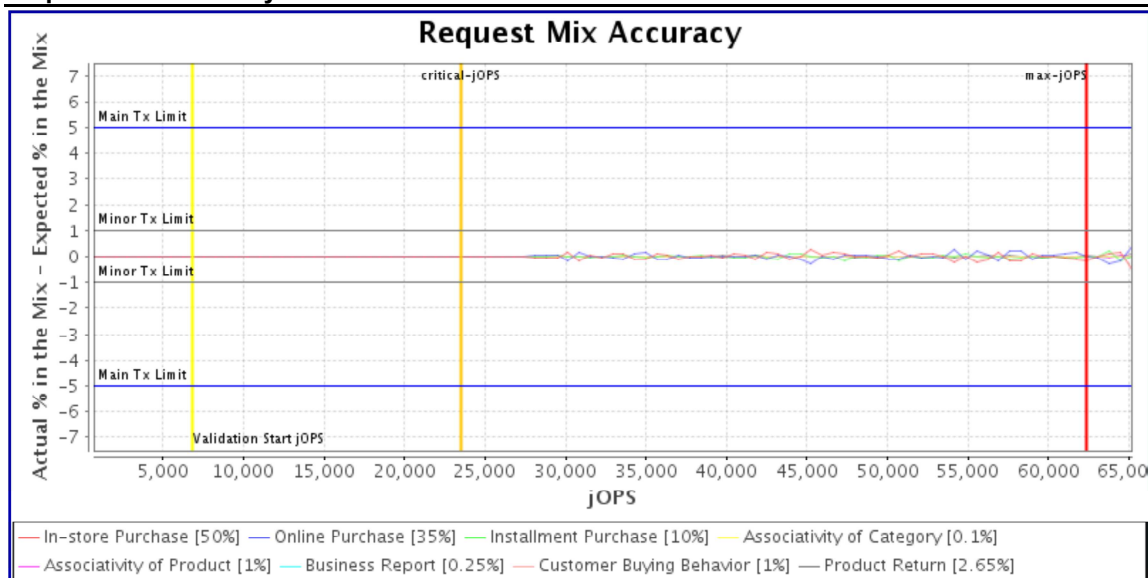
	Percentile					
	10-th	50-th	90-th	95-th	99-th	100-th
500us	- / 686	- / 686	- / 686	- / 686	- / 686	- / 686
1000us	5485 / 6171	2057 / 2743	1371 / 2057	686 / 1371	- / 686	- / 686
5000us	41824 / 42510	20569 / 19198	12342 / 13027	11656 / 12342	9599 / 6171	- / 686
10000us	43881 / 44567	38396 / 39081	23312 / 23997	22626 / 21940	9599 / 10285	- / 686
20000us	44567 / 45252	41824 / 42510	32911 / 33596	27426 / 28111	13027 / 13713	686 / 1371
50000us	45938 / 46624	43195 / 43881	34968 / 35653	28111 / 28797	17141 / 17827	2743 / 2057

100000us	47995 / 47309	44567 / 45252	39081 / 39767	34968 / 35653	22626 / 20569	2743 / 2057
200000us	52794 / 49366	45938 / 46624	43195 / 43881	42510 / 43195	39767 / 40453	17141 / 3428
500000us	56222 / 56908	52794 / 53480	48680 / 49366	47995 / 48680	47309 / 47995	45938 / 46624
1000000us	57594 / 58279	56908 / 57594	55537 / 56222	55537 / 56222	54166 / 54851	52794 / 53480

Number of probes



Request Mix Accuracy



Note

(Actual % in the Mix - Expected % in the Mix) must be within:

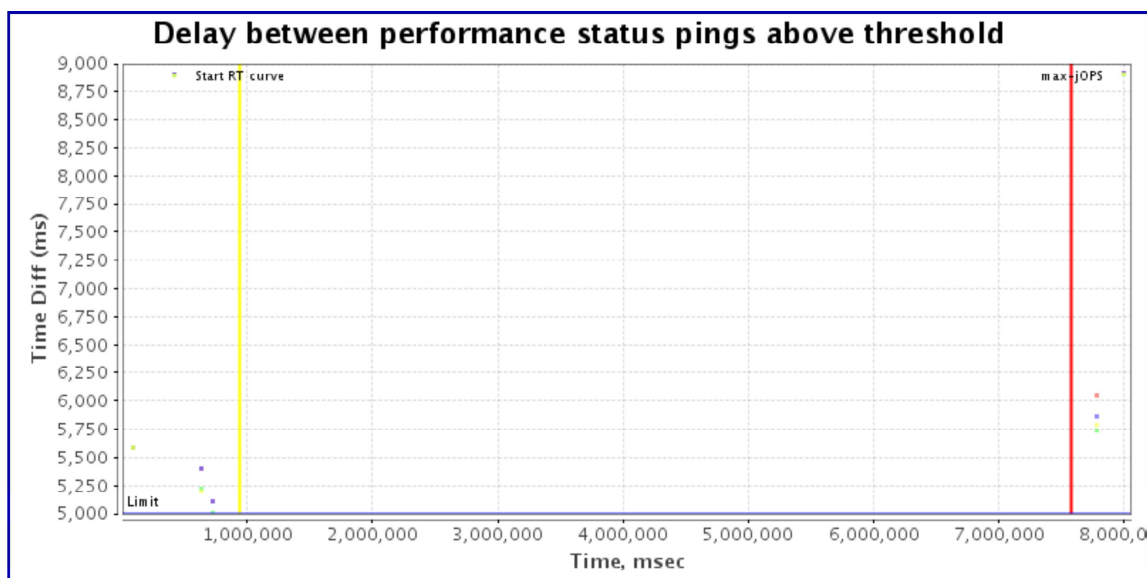
'Main Tx' limit of +/-5.0% for the requests whose expected % in the mix is >= 10.0%

'Minor Tx' limit of +/-1.0% for the requests whose expected % in the mix is < 10.0%

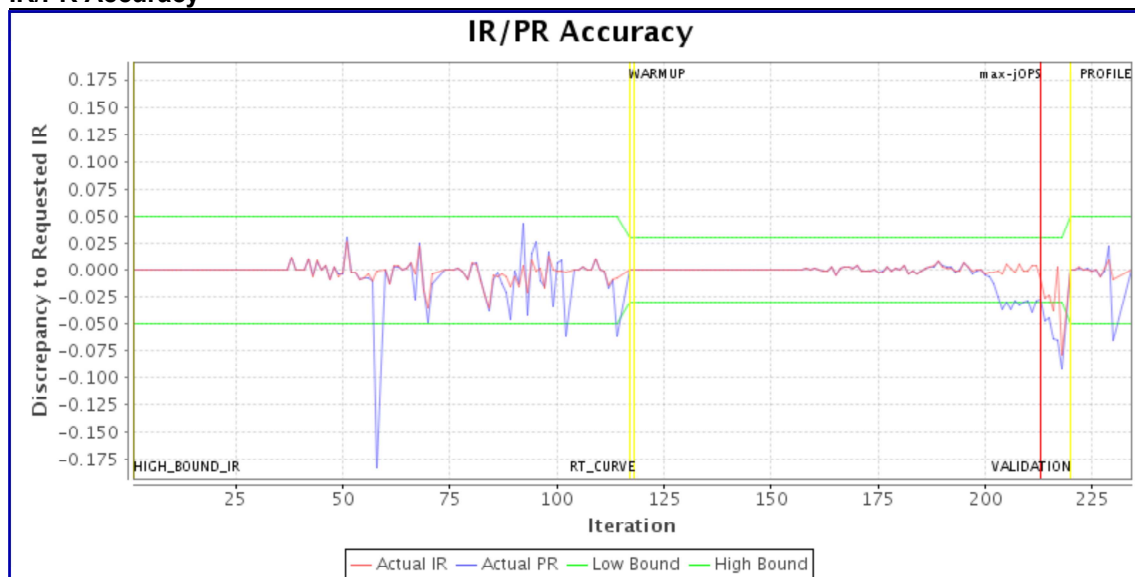
Rate of Non-Critical Failures

There were no non-critical failures in Response Time curve building

Delay between performance status pings during RT Curve (Response-Throughput Curve)



IR/PR Accuracy



Topology

SUT

Hardware [config_1](#)

OS Image [os_Image_1](#)

JVM [jvm_Ctr_1](#) : Controller

JVM [jvm_Backend_1](#) : Backend

JVM [jvm_TxInjector_1](#) : TxInjector

SUT config_1 Configuration

Hardware		OS Image os_Image_1	
OS Images	os_Image_1(1)	JVM Instances	jvm_Ctr_1(1) , jvm_Backend_1(2) , jvm_TxInjector_1(2)
Hardware Description	hw_1	OS Image Description	os_1
Number of Systems	1	Tuning	Huge Pages Enabled on OS
SW Environment	non-virtual	Notes	None
Tuning	BIOS Tuning - Energy Performance set to Performance Mode - CPU Performance set to Enterprise - Memory RAS Configuration set to Maximum Performance - LowVoltage DDR Mode set to Performance	JVM Instance jvm_Ctr_1	
		Parts of Benchmark	Controller
			jvm_1

	• DRAM Refresh rate set to 1x • Processor C6 Report set to disabled • Processor C1E set to disabled
Notes	None

JVM Instance Description	
Command Line	-Xmn1536m -Xms2g -Xmx2g
Tuning	None
Notes	None

JVM Instance jvm_Backend_1

Parts of Benchmark	Backend
JVM Instance Description	jvm_1
Command Line	-showversion -server -XX:-UseBiasedLocking -XX:LargePageSizeInBytes=2m -XX:+AlwaysPreTouch -XX:+UseLargePages -XX:+PrintGCDetails -XX:+PrintGCTimeStamps -XX:-PrintCompilation -Xms29g -Xmx29g -Xmn27g -XX:+UseParallelOldGC -XX:ParallelGCThreads=24 -XX:SurvivorRatio=16 -XX:TargetSurvivorRatio=90 -XX:-UseAdaptiveSizePolicy -XX:+AggressiveOpts
Tuning	Affinity Masks • numactl --cpunodebind=0 --localalloc • numactl --cpunodebind=1 --localalloc
Notes	None

JVM Instance jvm_TxInjector_1

Parts of Benchmark	TxInjector
JVM Instance Description	jvm_1
Command Line	-Xmn1536m -Xms2g -Xmx2g
Tuning	None
Notes	None

Run Properties

This section lists properties only set by user; use -defaultProps reporter option to list all properties

Property Name	Default Controller	
specjbb.customerDriver.threads	64	128
specjbb.group.count	1	2
specjbb.txi.pergroup.count	1	1

[View table in csv format](#)

Validation Details

Validation Reports

Level: COMPLIANCE

Check	Agent	Result
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Check properties on compliance	All	PASSED
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Level: CORRECTNESS

Check	Agent	Result
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Compare SM and HQ Inventory	All	PASSED
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Other Checks

High-bound (max attempted) is 68564 IR

High-bound (settled) is 60868 IR

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