SPEC SFS 1 Summary (Side 1 of 2) 097.LADDIS

Silicon Graphics

Challenge XL 16 x 250 MHz R4400

Server Hardware

CPU, Memory, & Power

Model No.	R-49616-S4
CPU	250MHz MIPS R4400
# of CPUs	16
Primary Cache	16KBI+16KBD on chip
Secondary Cache	4MB(I+D) off chip
Other Cache	None
Memory	1024MB 4-way interleaved
UPS	None
Other hardware	FDDI

Server Software

OS Version	IRIX 6.2
Other software	FDDIXpress, NFS
File system	XFS

Load Generators (LGs)

Number of Load Generators:	12
Processes Per Load Generator:	24
Biod_Max_Reads:	2
Biod_Max_Writes:	2

Disk Subsystem & Filesystems

(Full Configuration on Side 2)

Num Disk Controllers	19
Num Disks	145
Num File Systems	144 (FS0-FS143)

Network Subsystem

(Full Configuration On Side 2)

Num Net Controllers	6
Num Networks	6 (N1-N6)
Type Network	FDDI

Server Tuning

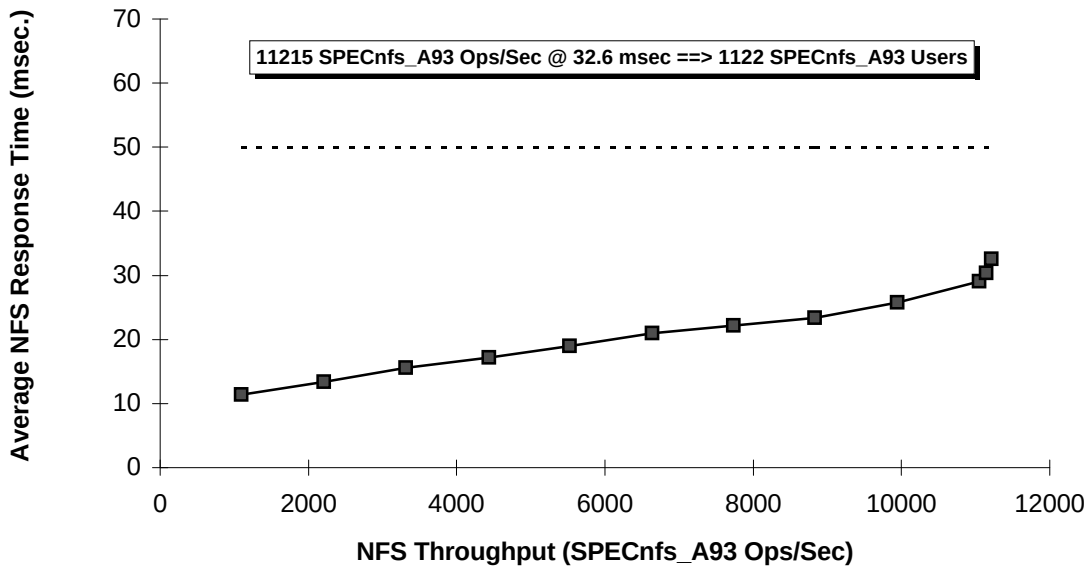
(Also see Notes/Tuning below)

Buffer Cache Size	Dynamic
Num NFS Daemons	340
Fileset Size	61GB

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. Response Time (NFS) Milliseconds
1097	11.4
2207	13.4
3319	15.6
4435	17.2
5528	19.0
6636	21.0
7736	22.2
8832	23.4
9943	25.8
11053	29.1
11144	30.4
11215	32.6

Hardware Availability: Sep-95 **Software Availability:** Mar-96

License #: 4 **Tested:** Feb-96 **By:** SGI **Of:** Mountain View, CA



Notes/Summary Of Tuning Parameters: (Continued on Side 2 of 2)

ncsize = 100000

All filesystems are mounted in wsync mode.

All filesystems are exported in wsync mode.

SPEC SFS 1 Summary (Side 2 of 2) 097.LADDIS

Silicon Graphics
Challenge XL 16 x 250 MHz R4400

Detailed Server Description

Network Subsystem

3 C8-FDDIXPHID FDDI controllers
each controller connects to 2 FDDI rings

Disk Subsystem & Filesystems

Cont 1: SCSI Fast/Wide Diff, 1 2GB SCSI, OS swap
Cont 2-16: SCIP-SCSI Fast/Wide Diff; Disks 1-144 2GB Quantum
Cont 2: Disks: 1-8,FS0,18,36,54,72,90,108,126
Cont 3: Disks: 9-16,FS1,19,37,55,73,91,109,127
Cont 4: Disks: 17-24,FS2,20,38,56,74,92,110,128
Cont 5: Disks: 25-32,FS3,21,39,57,75,93,111,129
Cont 6: Disks: 33-40,FS4,22,40,58,76,94,112,130
Cont 7: Disks: 41-48,FS5,23,41,59,77,95,113,131
Cont 8: Disks: 49-56,FS6,24,42,60,78,96,114,132
Cont 9: Disks: 57-64,FS7,25,43,61,79,97,115,133
Cont 10: Disks: 65-72,FS8,26,44,62,80,98,116,134
Cont 11: Disks: 73-80,FS9,27,45,63,81,99,117,135
Cont 12: Disks: 81-88,FS10,28,46,64,82,100,118,136
Cont 13: Disks: 89-96,FS11,29,47,65,83,101,119,137
Cont 14: Disks: 97-104,FS12,30,48,66,84,102,120,138
See Note Section For Rest Of Description

Detailed Load Generator (LG) Description

Load Gen. Type	*Model*	*# of CPUs*	*RAM*	*OS*	*Compiler*
LG1	Indy	1 200MH	32MB	IRIX 5.3	Ansi C, 3.17

Testbed Configuration

Load Gen. #	*Load Gen. Type*	*Network*	*Target File Systems*	*Notes*
1	LG1	N1	FS0-FS23	
2	LG1	N1	FS24-FS47	
3	LG1	N2	FS48-FS71	
4	LG1	N2	FS72-FS95	
5	LG1	N3	FS96-FS119	
6	LG1	N3	FS120-FS143	
7	LG1	N4	FS0-FS23	
8	LG1	N4	FS24-FS47	
9	LG1	N5	FS48-FS71	
10	LG1	N5	FS72-FS95	
11	LG1	N6	FS96-FS119	
12	LG1	N6	FS120-FS143	

Notes/Summary Of Tuning Parameters: (Continued from Side 1 of 2)

Disk Description continued from "Detailed Server Description"
Controller 15: Disks: 105-112,FS13,31,49,67,85,103,121,139
Controller 16: Disks: 113-120,FS14,32,50,68,86,104,122,140
Controller 17: Disks: 121-128,FS15,33,51,69,87,105,123,141
Controller 18: Disks: 129-136,FS16,34,52,70,88,106,124,142
Controller 19: Disks: 137-144,FS17,35,53,71,89,107,125,143