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

Sun Microsystems, Inc.

SPARCstation/server 20 Model 71

Server Hardware

CPU, Memory, & Power

Model No.	SPARCstation/server 20 Model 71
CPU	75MHz SuperSPARC II
# of CPUs	1
Primary Cache	20KBI+16KBD on chip
Secondary Cache	1MB(I+D) off chip
Other Cache	None
Memory	64MB
UPS	None
Other hardware	Ethernet

Server Software

OS Version	Solaris 2.4
Other software	None
File system	UFS

Load Generators (LGs)

Number of Load Generators:	10
Processes Per Load Generator:	4
Biod_Max_Reads:	2
Biod_Max_Writes:	2

Disk Subsystem & Filesystems

(Full Configuration on Side 2)

Num Disk Controllers	7
Num Disks	22
Num File Systems	23

Network Subsystem

(Full Configuration On Side 2)

Num Net Controllers	2
Num Networks	5
Type Network	Ethernet

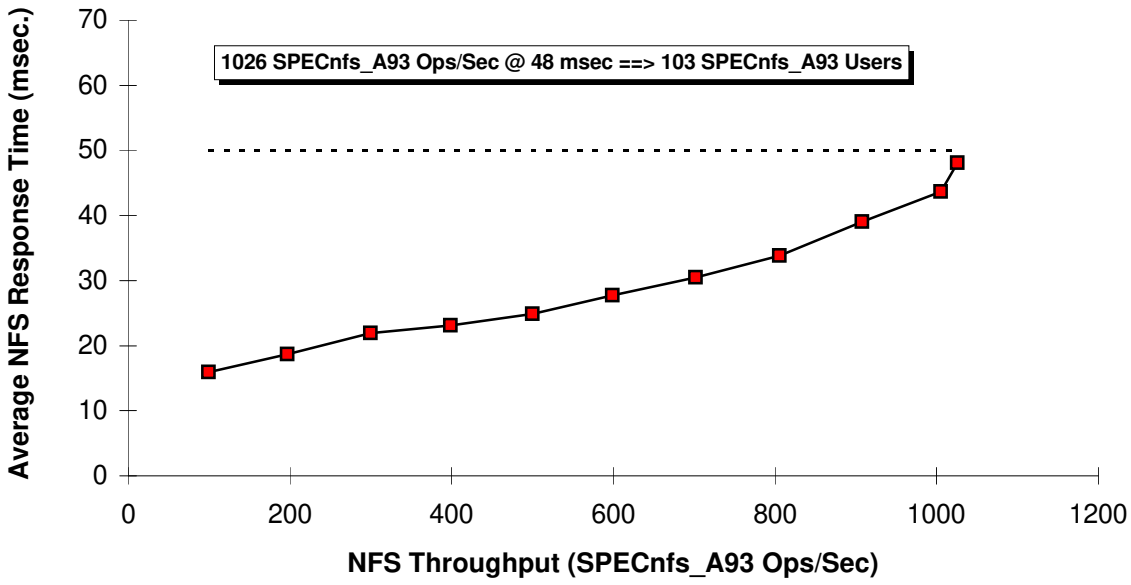
Server Tuning

(Also see Notes/Tuning below)

Buffer Cache Size	Dynamic
Num NFS Daemons	64
Fileset Size	6.5GB

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. Response Time (NFS) Milliseconds
99	15.9
197	18.7
300	21.9
399	23.1
501	24.9
599	27.8
702	30.5
806	33.8
908	39.1
1005	43.6
1026	48.0

Hardware Availability:	Feb-95	**Software Availability:**	Oct-94				
License #:	6	**Tested:**	Nov-94	**By:**	Sun	**Of:**	Mountain View, CA



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

The adb tool was used to enable UDP checksumming on the load generators.
adb -w /vmunix /dev/kmem
udp_cksum/W 1
udp_cksum?W 1
UDP checksums are enabled by default on the server running Solaris 2.x

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

Sun Microsystems, Inc.

SPARCstation/server 20 Model 71

Detailed Server Description

Network Subsystem

2 Sbus Quad Ethernet Controller (SQEC)
5 Etnernets(N01-N05): 2 LGs each

Disk Subsystem & Filesystems

Controller 01: FSBE Ethernet/SCSI Controller
Disk: Sun 535MB Contents: OS, swap

SPARCstorage Array=SSA, Fibre Channel SBus Card=FC25/S,
Fibre Channel Optical Module=FC25/OM
SSA #1: 20 Sun 1.05GB disks, 1 FC25/S, 1 FC25/OM and
6 SCSI-2 Host Adapter (HA) within SSA
ctl 02(OM1/HA1): Disks 01-04, F01-F04 ctl 03(OM1/HA2): Disks 05-08, F05-F08
ctl 04(OM1/HA3): Disks 09-11, F09-F11 ctl 05(OM1/HA4): Disks 12-14, F12-F14
ctl 06(OM1/HA5): Disks 15-17, F15-F17 ctl 07(OM1/HA6): Disks 18-20, F18-F20

Detailed Load Generator (LG) Description

Load Gen. Type	*Model*	*# of CPUs*	*RAM*	*OS*	*Compiler*
LG1	SPARCstation 2	1	32MB	SunOS4.1.3	/bin/cc
LG2	SPARCstation 10/40	1	48MB	SunOS4.1.3	/bin/cc

Testbed Configuration

Load Gen. #	*Load Gen. Type*	*Network*	*Target File Systems*	*Notes*
01/06	LG2/LG1	N01/N03	F01,F05,F09,F12	Default
02/07	LG1/LG1	N01/N04	F15,F18,F02,F06	Default
03/08	LG1/LG1	N02/N04	F10,F13,F16,F19	Default
04/09	LG1/LG1	N02/N05	F03,F07,F11,F14	Default
05/10	LG1/LG1	N03/N05	F17,F20,F04,F08	Default

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

maxusers=32 ufs_ninode=48000
ncsize=48000 bufhwm=24000
autoup=600 tune_t_fsflushr=600

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