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

Network Appliance
FAServer

Server Hardware

CPU, Memory, & Power

Model No.	NFAS-1400-64-S5
CPU	50MHz i486
# of CPUs	1
Primary Cache	8KB(I+D) on chip
Secondary Cache	256KB(I+D) off chip
Other Cache	4MB NVRAM
Memory	256MB
UPS	None
Other hardware	FDDI

Server Software

OS Version	FAServer Software 3.0 Beta
Other software	None
File system	WAFL

Load Generators (LGs)

Number of Load Generators:	6
Processes Per Load Generator:	3
Biod_Max_Reads:	2
Biod_Max_Writes:	2

Disk Subsystem & Filesystems

(Full Configuration on Side 2)

Num Disk Controllers	1
Num Disks	7
Num File Systems	1

Network Subsystem

(Full Configuration On Side 2)

Num Net Controllers	1
Num Networks	1 (N1)
Type Network	FDDI

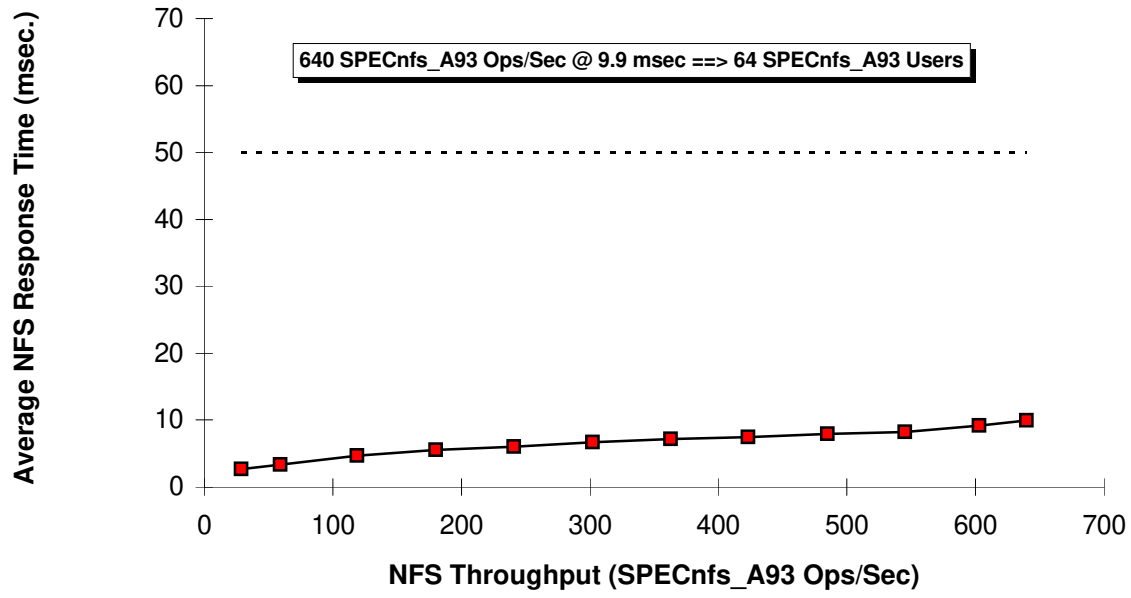
Server Tuning

(Also see Notes/Tuning below)

Buffer Cache Size	Dynamic
Num NFS Daemons	See Notes
Fileset Size	3.4GB

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. Response Time (NFS) Milliseconds
29	2.7
59	3.3
119	4.7
180	5.5
241	6.0
302	6.7
363	7.2
423	7.5
485	7.9
545	8.2
603	9.2
640	9.9

Hardware Availability:	Jan-95	**Software Availability:**	Sep-95		
License #:	33	**Tested:**	Aug-95	**By:**	NAC	**Of:**	Mountain View, CA



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

The FAServer uses RAID to combine all of its disks into a single large file system. It uses a real-time embedded kernel that processes NFS requests right from the network layer without any NFS daemons. It uses non-volatile RAM to improve NFS performance.

To run the SFS benchmark, configure the FAServer by adding this line to /etc/rc:

options minra 1 nosnap 1 nosnapdir 1

The adb tool was used to enable UDP checksumming on the load generators:

adb -w -k /vmunix /dev/mem

udp_cksum?W1 udp_cksum/W1

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

Network Appliance
FAServer

Detailed Server Description

Network Subsystem

NFAS-X118-TP (SAS MLT3 FDDI)
1 FDDI (N1): 6 LGs per Net

Disk Subsystem & Filesystems

Controller 1: Fast SCSI in base system
Disks: 1 X206 (7 disks, included in bundled system)
Contents: F1 (RAID 4: 6 Data Disk and 1 Parity Disk)

Detailed Load Generator (LG) Description

Load Gen. Type	*Model*	*# of CPUs*	*RAM*	*OS*	*Compiler*
LG1	Axil Model 311	1	32MB	SunOS 4.1.3	/bin/cc

Testbed Configuration

Load Gen. #	*Load Gen. Type*	*Network*	*Target File Systems*	*Notes*
1,2,3,4,5,6	LG1	N1	F1	Default

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