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

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. NFS Response Time Milliseconds
29	2.8
60	3.5
121	4.3
181	5.2
242	6.0
303	6.9
363	7.7
425	9.0
484	10.2
545	11.8
606	13.6
622	14.7
637	15.8

Network Appliance Corporation
FAServer

Server Hardware

CPU, Memory, & Power

Model No.	FAServer Model 450
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	None

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 Software

OS Version	FAServer Software 2.1 Beta
Other software	None
File system	WAFL

Server Tuning

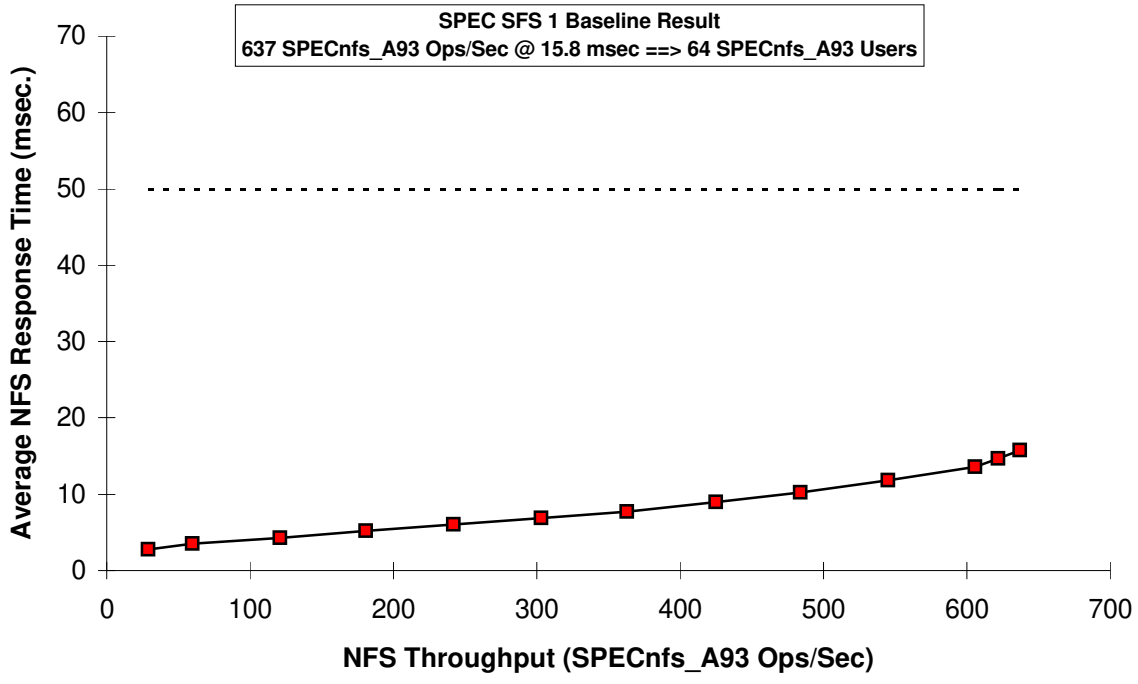
(Also see Notes/Tuning below)

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

Load Generators (LGs)

Number of Load Generators:	3
Processes Per Load Generator:	8
Biod_Max_Reads:	2
Biod_Max_Writes:	2

Hardware Availability:	Jan-95			**Software Availability:**	Jan-95		
License #:	33	**Tested:**	Oct-94	**By:**	NetApp	**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 -k /vmunix /dev/mem
udp_cksum?W1          udp_cksum/W1
```

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.

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

Network Appliance Corporation

FAServer

Detailed Server Description

Network Subsystem

Cisco Turbo FDDI EISA Card
1 FDDI (N1): 3 LGs per Net

Disk Subsystem & Filesystems

Controller 1: Adaptec SCSI 1742
Disks: 7 SCSI Seagate ST12400N 2 GB
Contents: F1 (RAID 4: 6 Data Disk and 1 Parity Disk)

Detailed Load Generator (LG) Description

Load Generator Type: LG1

Model:	Axil Model 311
# of CPUs:	1
Main Mem	32MB
OS:	SunOS 4.1.3
Compiler:	/bin/cc

Testbed Configuration

Load Generator Number	Load Generator Type	Network	Target Filesystems	Filesystem Mount Options
1-3	LG2	N1	F1	Default

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

```
To run the SFS benchmark, configure the FAServer by adding this line to /etc/rc:
options minra 1 nosnap 1 nosnapdir 1
```


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