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

Network Appliance
NetApp F630

Server Hardware

CPU, Memory, & Power

Model No.	F630
CPU	500MHz Alpha 21164A
# of CPUs	1
Primary Cache	8KBI+8KBD+96KBmixed on chip
Secondary Cache	2MB(I+D) off chip
Other Cache	32MB NVRAM
Memory	512MB
UPS	None
Other hardware	FDDI

Disk Subsystem & Filesystems

(Full Configuration on Side 2)

Num Disk Controllers	1
Num Disks	26
Num File Systems	1

Network Subsystem

(Full Configuration On Side 2)

Num Net Controllers	2
Num Networks	2 (N1,N2)
Type Network	FDDI

Server Software

OS Version	Data ONTAP (tm) 4.2 Beta
Other software	None
File system	WAFL

Server Tuning

(Also see Notes/Tuning below)

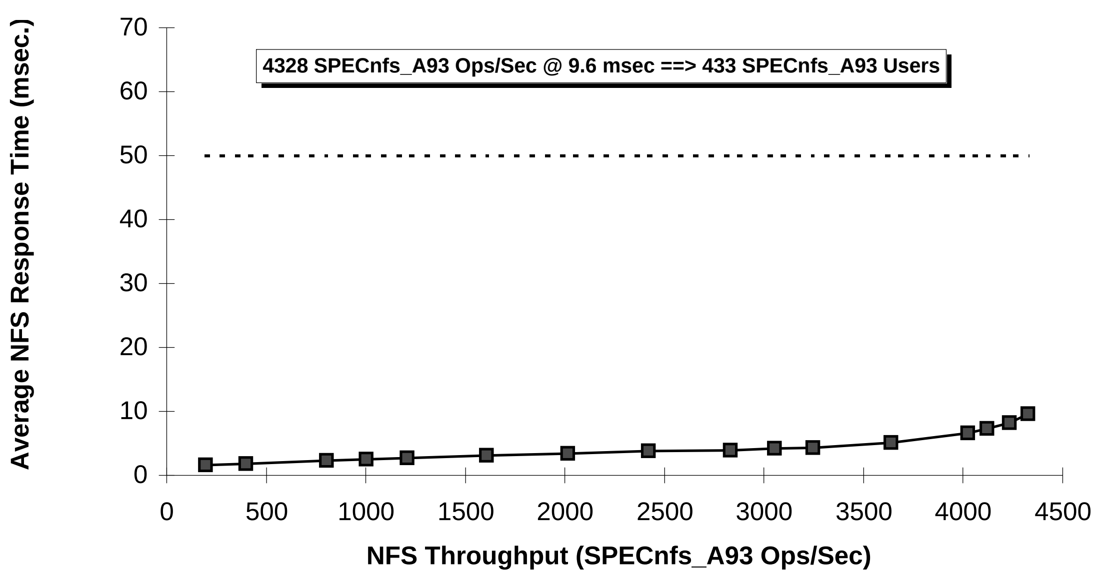
Buffer Cache Size	Dynamic
Num NFS Daemons	See Notes
Fileset Size	23.3GB

Load Generators (LGs)

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

Hardware Availability:	Jun-97	**Software Availability:**	Sep-97
License #:	33	**Tested:**	Apr-97
By:	Network Appli	**Of:**	Santa Clara, CA

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. Response Time (NFS) Milliseconds
197	1.6
399	1.8
805	2.3
1004	2.5
1210	2.7
1607	3.1
2014	3.4
2421	3.8
2833	3.9
3052	4.2
3247	4.3
3639	5.1
4024	6.6
4121	7.3
4234	8.2
4328	9.6



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

The NetApp F630 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 NetApp F630 by adding this line to /etc/rc:

options minra 1 nosnap 1 nosnapdir 1

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

Network Appliance
NetApp F630

Detailed Server Description

Network Subsystem

Two X1102 (SA TP) MLT3 FDDI Adapters
1 MLT3 FDDI (N1): 3 LGs per Net
1 MLT3 FDDI (N2): 3 LGs per Net

Disk Subsystem & Filesystems

Controller 1: Dual Fast/Wide/Differential SCSI
Disks: two X623 13-disk shelf-pairs
(ea incl 13 4-GB Seagate Barracudas)
(one X623 per SCSI channel)
Contents: F1 (RAID 4: 25 Data Disks and 1 Parity Disk)

Detailed Load Generator (LG) Description

Load Gen. Type	*Model*	*# of CPUs*	*RAM*	*OS*	*Compiler*
LG1	Sun Ultra 170 (167-MHz UltraSPARC)	1	64MB	Solaris 2.5.1	gcc 2.5.6

Testbed Configuration

Load Gen. #	*Load Gen. Type*	*Network*	*Target File Systems*	*Notes*
Load	Load			Filesystem
Gen	Gen		Target	Mount
Number	Type	Network	Filesys	Options
1,3,5	LG1	N1	F1	Default
2,4,6	LG1	N2	F1	Default

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