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

Digital Equipment Corporation
AlphaServer 4000 5/466

Server Hardware

CPU, Memory, & Power

Model No.	AlphaServer 4000 5/466
CPU	466 MHz 21164
# of CPUs	1
Primary Cache	8KBI+8KBD on chip
Secondary Cache	96KB(I+D) on chip
Other Cache	4MB(I+D) off chip
Memory	1GB
UPS	None
Other hardware	FDDI

Server Software

OS Version	Digital UNIX T4.0D-2 (Rev. 757.2)
Other software	
File system	UFS

Load Generators (LGs)

Number of Load Generators:	2
Processes Per Load Generator:	21
Biod_Max_Reads:	16
Biod_Max_Writes:	16

Disk Subsystem & Filesystems

(Full Configuration on Side 2)

Num Disk Controllers	5
Num Disks	43
Num File Systems	42 (F1 thru F42)

Network Subsystem

(Full Configuration On Side 2)

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

Server Tuning

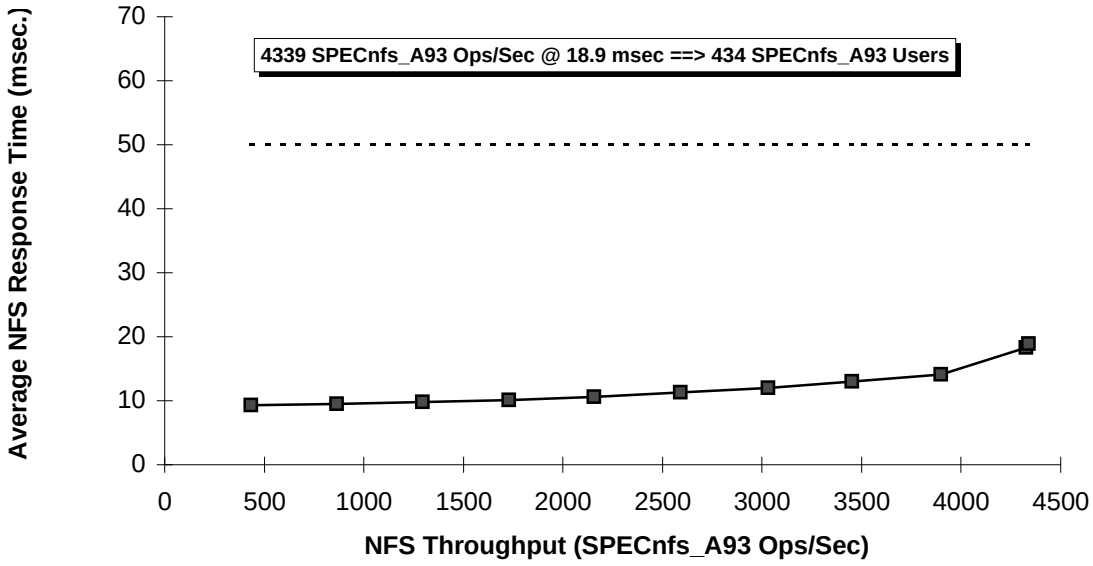
(Also see Notes/Tuning below)

Buffer Cache Size	Dynamic (UBC Cache)
Num NFS Daemons	96
Fileset Size	22.6GB

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. Response Time (NFS) Milliseconds
433	9.3
864	9.5
1296	9.8
1728	10.1
2157	10.6
2592	11.3
3031	12.0
3453	13.0
3900	14.1
4328	18.3
4339	18.9

Hardware Availability: Jan-97 **Software Availability:** Oct-97

License #: 2 **Tested:** Jul-97 **By:** Digital **Of:** Nashua, NH



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

bufcache: 15% (150 MB)
vm-ubcbuffers: 1024
maxusers: 1024
vm-ubcmaxdirtypercent: 100
vnode_age: 600
vnode-deallocation-enable: 0
name-cache-hash-size: 16384
buffer-hash-size: 16384

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

Digital Equipment Corporation
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Detailed Server Description

Network Subsystem

2 DEC FDDI Controllers (DEFPA-AA)
1 FDDI (N1): 1 LG
1 FDDI (N2): 1 LG
1 DEChub 900
2 DECconcentrator 900s (DEFHU-MU)

Disk Subsystem & Filesystems

5 KZPSA PCI (Fast Wide Differential) disk controllers

A HSZ40 with writeback cache is connected to each controller.
2 split bus BA350s are connected to each HSZ40 over 4 ports.

Controller 1: 1 RZ29B (4.3GB) -- OS and Swap

All Target filesystems are using partition A on RZ29B disks (4.3GB/narrow). Partition A has been increase to be a 1GB partition.

Controller 1: F1-F9
Controller 2: F10-F18
Controller 3: F19-F26
Controller 4: F27-F34
Controller 5: F35-F42

Detailed Load Generator (LG) Description

Load Gen. Type	*Model*	*# of CPUs*	*RAM*	*OS*	*Compiler*	
LG1	AlphaServer 4100 5/466	4	2GB	Digital UNIX T4.0D-2 (release 757.2)	cc	

Testbed Configuration

Load Gen. #	*Load Gen. Type*	*Network*	*Target File Systems*	*Notes*
1	LG1	N1	F1,F10,F19,F27,F35,F6,F15,F23,F31,F39,F2,F11,F20,F28,F36,F7,F16,F24,F32,F40,F3	nfsv2
2	LG1	N2	F12,F21,F29,F37,F8,F17,F25,F33,F41,F4,F13,F22,F30,F38,F38,F9,F18,F26,F34,F42,F5,F14	nfsv2

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

inode-hash-size: 8192