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

Digital Equipment Corporation
AlphaServer 8200 5/350

Server Hardware

CPU, Memory, & Power

Model No.	AlphaServer 8200 5/350
CPU	350 MHz 21164
# of CPUs	4
Primary Cache	8KBI+8KBD on chip
Secondary Cache	96KB(I+D) on chip
Other Cache	4MB(I+D) off chip
Memory	2GB
UPS	None
Other hardware	FDDI

Server Software

OS Version	Digital UNIX V3.2C
Other software	OSF patch # OSF32_60
File system	UFS

Load Generators (LGs)

Number of Load Generators:	10
Processes Per Load Generator:	10
Biod_Max_Reads:	64
Biod_Max_Writes:	64

Disk Subsystem & Filesystems

(Full Configuration on Side 2)

Num Disk Controllers	17
Num Disks	101
Num File Systems	100 (F1 thru F100)

Network Subsystem

(Full Configuration On Side 2)

Num Net Controllers	3
Num Networks	3 (N1 thru N3)
Type Network	FDDI

Server Tuning

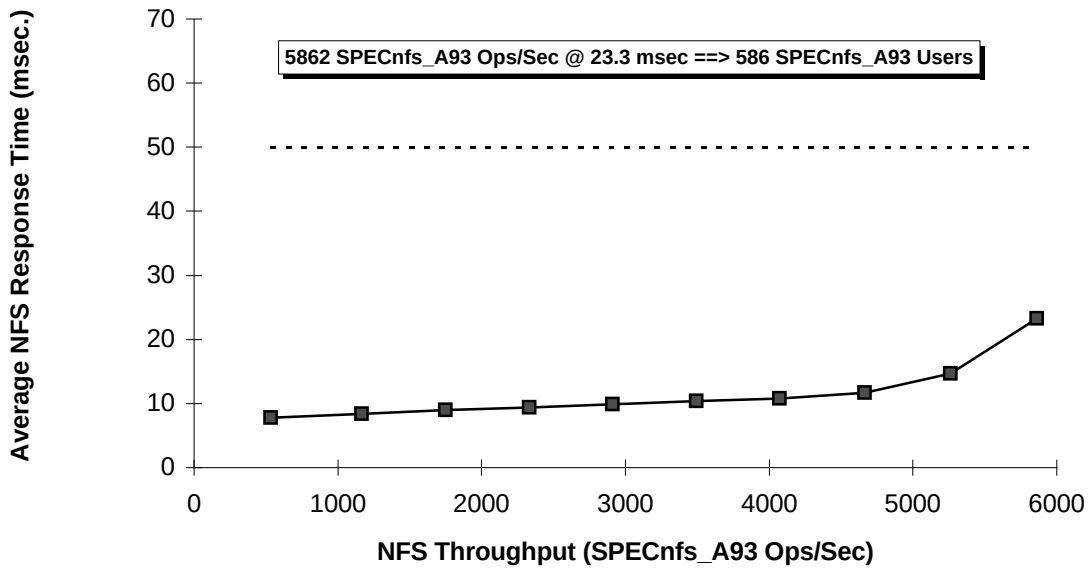
(Also see Notes/Tuning below)

Buffer Cache Size	Dynamic (UBC Cache)
Num NFS Daemons	128
Fileset Size	29GB

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. Response Time (NFS) Milliseconds
532	7.8
1167	8.4
1750	9.0
2332	9.4
2911	9.9
3495	10.4
4074	10.8
4665	11.7
5259	14.7
5862	23.3

Hardware Availability: Mar-96 **Software Availability:** Aug-95

License #: 2 **Tested:** Mar-96 **By:** DEC **Of:** Nashua, NH



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

bufcache: 15% (300 MB)
ubcbuffers: 1024
maxusers: 3072
ubc-maxdirtywrites: 100
vnode_age: 600
vnode_dealloc_enable: 0
ufs_disable_reada: 1
lad_sync: 1

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

Digital Equipment Corporation
AlphaServer 8200 5/350

Detailed Server Description

Network Subsystem

3 DEC FDDI Controllers (DEFPA-AA)
1 FDDI (N1): 3 LGs
1 FDDI (N2): 3 LGs
1 FDDI (N3): 4 LGs
3 DECconcentrator 500s (DEFCN-BC)

Disk Subsystem & Filesystems

17 KZPSA PCI (Fast Wide Differential) disk controllers
Controller 1: 1 RZ29 (4.3GB) -- OS and Swap

All Target filesystems are using partition A on RZ29 disks (4.3GB). Partition A has been increase to be a 1GB partition.

Controller 2: F1-F7 Controller 3: F8-F14
Controller 4: F15-F21 Controller 5: F22-F28
Controller 6: F29-F34 Controller 7: F35-F40
Controller 8: F41-F46 Controller 9: F47-F52
Controller 10: F53-F58 Controller 11: F59-F64
Controller 12: F65-F70 Controller 13: F71-F76
Controller 14: F77-F82 Controller 15: F83-F88
Controller 16: F89-F94 Controller 17: F95-F100

Detailed Load Generator (LG) Description

Load Gen. Type	*Model*	*# of CPUs*	*RAM*	*OS*	*Compiler*
LG1	AlphaStation 250 4/266	1	64 MB	Digital UNIX V3.2D	cc

Testbed Configuration

Load Gen. #	*Load Gen. Type*	*Network*	*Target File Systems*	*Notes*
1	LG1	N1	F1,F8,F15,F22,F29,F35,F41,F47,F53,F59	nfsv2
2	LG1	N2	F65,F71,F77,F83,F89,F95,F2,F9,F16,F23	nfsv2
3	LG1	N3	F30,F36,F42,F48,F54,F60,F66,F72,F78,F84	nfsv2
4	LG1	N1	F90,F96,F3,F10,F17,F24,F31,F37,F43,F49	nfsv2
5	LG1	N2	F55,F61,F67,F73,F79,F85,F91,F97,F4,F11	nfsv2
6	LG1	N3	F18,F25,F32,F38,F44,F50,F56,F62,F68,F74	nfsv2
7	LG1	N1	F80,F86,F92,F98,F5,F12,F19,F26,F33,F39	nfsv2
8	LG1	N2	F45,F51,F57,F63,F69,F75,F81,F87,F93,F99	nfsv2
9	LG1	N3	F6,F13,F20,F27,F34,F40,F46,F52,F58,F64	nfsv2
10	LG1	N1	F70,F76,F82,F88,F94,F100,F7,F14,F21,F28	nfsv2

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