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	2
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

Disk Subsystem & Filesystems

(Full Configuration on Side 2)

Num Disk Controllers	5
Num Disks	64
Num File Systems	(F1 thru F63)

Network Subsystem

(Full Configuration On Side 2)

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

Server Software

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

Server Tuning

(Also see Notes/Tuning below)

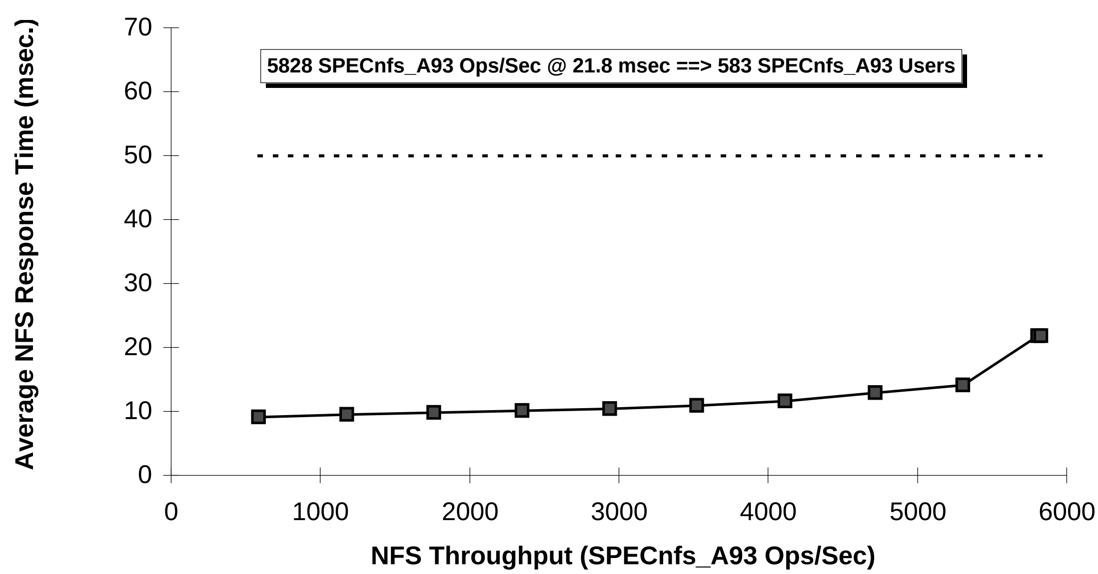
Buffer Cache Size	Dynamic (UBC Cache)
Num NFS Daemons	96
Fileset Size	30.5GB

Load Generators (LGs)

Number of Load Generators:	3
Processes Per Load Generator:	21
Biod_Max_Reads:	16
Biod_Max_Writes:	16

Hardware Availability:	Jan-97	**Software Availability:**	Oct-97
License #: 2	**Tested:** Jul-97	**By:** Digital	**Of:** Nashua, NH

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. Response Time (NFS) Milliseconds
589	9.1
1179	9.5
1763	9.8
2351	10.1
2938	10.4
3524	10.9
4116	11.6
4718	12.9
5304	14.1
5805	21.8
5828	21.8



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

bufcache: 15% (300MB)
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
AlphaServer 4000 5/466

Detailed Server Description

Network Subsystem

3 DEC FDDI Controllers (DEFPA-AA)
 1 FDDI (N1): 1 LG
 1 FDDI (N2): 1 LG
1 DEChub 900
 3 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-F13
Controller 2: F14-F26
Controller 3: F27-F39
Controller 4: F40-F51
Controller 5: F52-F63

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,F14,F27,F40,F52,F8,F21,F34,F46,F58,F2,F15,F28,F41,F53,F9,F22,F35,F47,F59,F3	nfsv2
2	LG1	N2	F16,F29,F42,F54,F10,F23,F36,F48,F60,F4,F17,F30,F43,F55,F11,F24,F37,F49,F61,F5,F18	nfsv2
3	LG1	N3	F31,F44,F56,F12,F25,F38,F50,F62,F6,F19,F32,F45,F57,F13,F26,F39,F51,F63,F7,F20,F33	nfsv2

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

inode-hash-size: 8192