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

Invincible Technologies Corporation
Lifeline Series 1000

Server Hardware

CPU, Memory, & Power

Model No.	Model 300
CPU	366MHz Alpha (21164)
# of CPUs	1
Primary Cache	16KBI+16KBD on chip
Secondary Cache	2MB(I+D) off chip
Other Cache	32MB NVRAM per RAID Controller
Memory	512MB
UPS	None
Other hardware	None

Server Software

OS Version	Digital UNIX 4.0A
Other software	MEDS
File system	UFS

Load Generators (LGs)

Number of Load Generators:	3
Processes Per Load Generator:	12
Biod_Max_Reads:	2
Biod_Max_Writes:	3

Disk Subsystem & Filesystems

(Full Configuration on Side 2)

Num Disk Controllers	3
Num Disks	37
Num File Systems	12 (F1-F12)

Network Subsystem

(Full Configuration On Side 2)

Num Net Controllers	1
Num Networks	1 (N1)
Type Network	FDDI

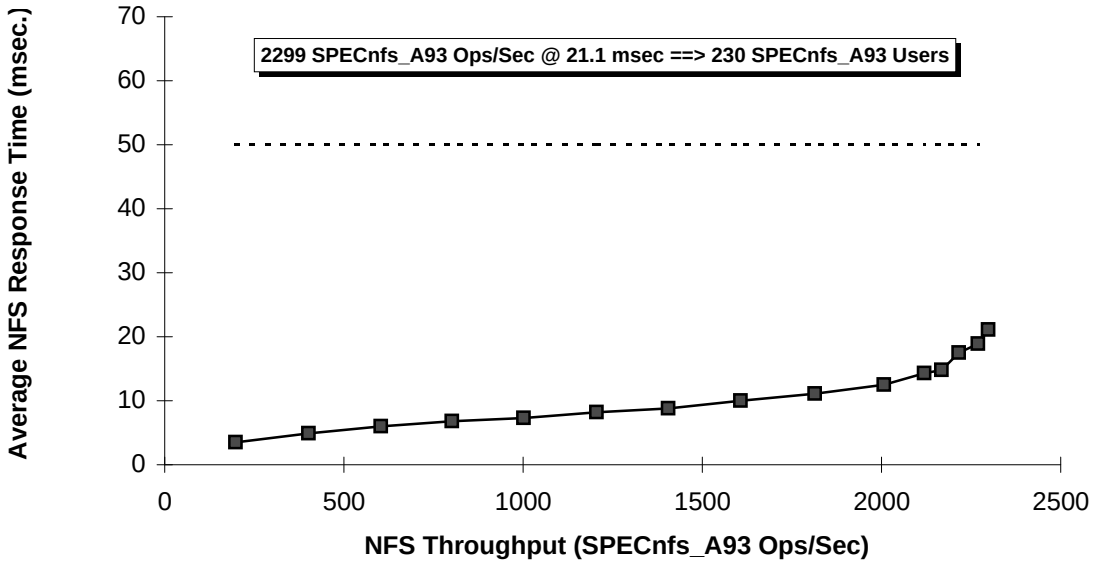
Server Tuning

(Also see Notes/Tuning below)

Buffer Cache Size	Dynamic (UBC Cache)
Num NFS Daemons	36
Fileset Size	12.5GB

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. Response Time (NFS) Milliseconds
198	3.5
402	4.9
604	6.0
802	6.8
1001	7.3
1206	8.2
1406	8.8
1607	10.0
1815	11.1
2008	12.5
2120	14.3
2167	14.8
2216	17.5
2270	18.9
2299	21.1

Hardware Availability:	Mar-97			**Software Availability:**	Mar-97		
License #:	984	**Tested:**	Mar-97	**By:**	ITC	**Of:**	Medway, MA



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

bufcache: 10% (102 MB)
ubcbuffers: 1024
maxusers: 1024
ubc-maxdirtywrites: 100
prmetaonly: 1
vnode_age: 600
vnode_dealloc_enable: 0
ufs_disable_reada: 1

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Detailed Server Description

Network Subsystem

1 FDDI Dual Attached Station on the Server: Digital DEFPA
1 FDDI Dual Attached Station in each of the 3 LGs
All on the same FDDI ring.

Disk Subsystem & Filesystems

Controller 1: PCI Fast/Narrow/Single-Ended SCSI controller: Qlogic ISP1020
  Disks: 1 Individual Disk: JBOD Digital SHZH1-ZZ (Seagate ST15150N) 4GB
    Contents: OS, page space
Controller 2: PCI Fast/Wide/Differential SCSI controller: Digital KZPSA
  Disks: 3 RAID 5 arrays (RAID Array controller #1)
    Contents: F1-F3
  Disks: 3 RAID 5 arrays (RAID Array controller #2)
    Contents: F4-F6
Controller 3: PCI Fast/Wide/Differential SCSI controller: Digital KZPSA
  Disks: 3 RAID 5 arrays (RAID Array controller #1)
    Contents: F7-F9
  Disks: 3 RAID 5 arrays (RAID Array controller #2)
    Contents: F10-F12
Controller is attached to LIFELINE External RAID Storage Array.
LIFELINE External RAID Storage Array contains two array controllers.
RAID 5 array consists of 3 Digital SHZGA-ZZs (Fujitsu M2949E-512) 9GB

Detailed Load Generator (LG) Description

Load Gen. Type	*Model*	*# of CPUs*	*RAM*	*OS*	*Compiler*
LG1	ITC LIFELINE L275P	1	64MB	Digital UNIX 4.0A	cc

Testbed Configuration

Load Gen. #	*Load Gen. Type*	*Network*	*Target File Systems*	*Notes*
1	LG1	N1	F1-F12	nfsv2
2	LG1	N1	F1-F12	nfsv2
3	LG1	N1	F1-F12	nfsv2

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

lad_sync: 1