SPECsfs97 Result

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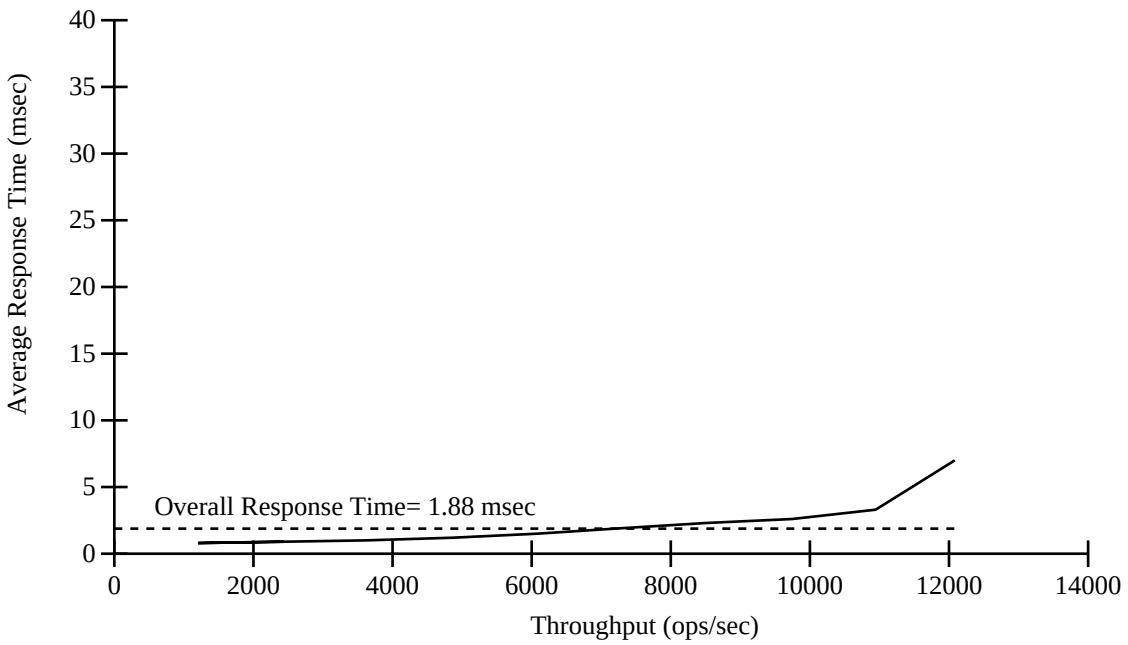
Maxxan Systems Inc.
SG100 Storage Gateway

SPECsfs97_R1.v3 =

12083 Ops/Sec (Overall Response Time = 1.88 msec)

Tested:	By:	License #:	Hardware Avail:	Software Avail:
March 2003	Maxxan Systems Inc.	2581	December 2002	December 2002

Throughput (ops/sec)	Average Response (msec)
1205	0.8
2435	0.9
3614	1.0
4866	1.2
6075	1.5
7257	1.9
8494	2.3
9741	2.6
10945	3.3
12083	**7.0**



CPU, Memory and Power

Model Name:	SG100 Storage Gateway
Processor:	2.4 GHz Pentium IV Xeon
# of Processors:	2
Primary Cache:	12K uops + 8KB D
Secondary Cache:	512KB on-die
Other Cache:	N/A
UPS:	N/A
Other Hardware:	N/A
Memory Size:	4 GB
NVRAM Size:	N/A
NVRAM Type:	N/A
NVRAM Description:	N/A

Server Software

OS Name and Version:	VxOS - based on Red Hat Linux 7.2
Other Software:	Veritas ServPoint NAS 1.2 for Linux
File System:	VxFS
NFS version:	3

Network Subsystem

Network Type:	Gigabit Ethernet
Network Controller Desc.:	Intel 82546 GbEthernet controller
Number Networks:	1 (N1)
Number Network Controllers:	1
Protocol Type:	UDP
Switch Type:	Dell 3024 Switch
Bridge Type:	N/A
Hub Type:	N/A
Other Network Hardware:	N/A

Server Tuning

Buffer Cache Size:	Dynamic
# NFS Processes:	128
Fileset Size:	116.0 GB

Disk Subsystem

Number Disk Controllers:	11
Number of Disks:	81
Number of Filesystems:	8 (F1-F8)
File System Creation Ops:	default
File System Config:	default

Disk Controller:	IDE Compact Flash
# of Controller Type:	1
Number of Disks:	1
Disk Type:	1GB IBM microdrive
File Systems on Disks:	Operating System
Special Config Notes:	N/A

Disk Controller:	Qlogic 2312
# of Controller Type:	5
Number of Disks:	80
Disk Type:	SEAGATE ST318451 18GB 15K rpm
File Systems on Disks:	F1 - F8
Special Config Notes:	See other notes

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Load Generator (LG) Configuration

Number of Load Generators:	10
Number of Processes per LG:	8
Biod Max Read Setting:	2
Biod Max Write Setting:	2

LG Type:	LG1	LG Type:	LG3
LG Model:	Sun Ultra 5/10	LG Model:	Sun Ultra 5/10
Number and Type Processors:	400 MHz Ultra Sparc IIi	Number and Type Processors:	360 Mhz Ultra Sparc IIi
Memory Size:	512 MB	Memory Size:	512 MB
Operating System:	Solaris 8	Operating System:	Solaris 8
Compiler:	pre-compiled binaries	Compiler:	pre-compiled binaries
Compiler Options:	none	Compiler Options:	none
Network Type:	Integrated 10/100BASE-T	Network Type:	InTegrated 10/100BASE-T
LG Type:	LG2	LG Type:	LG4
LG Model:	Sun Ultra 5/10	LG Model:	Compag DS850
Number and Type Processors:	400 MHz Ultra Sparc IIi	Number and Type Processors:	1.133 GHz Pentium III
Memory Size:	256 MB	Memory Size:	1 GB
Operating System:	Solaris 8	Operating System:	Solaris 8
Compiler:	pre-compiled binaries	Compiler:	pre-compiled binaries
Compiler Options:	none	Compiler Options:	none
Network Type:	Integrated 10/100BASE-T	Network Type:	InTegrated 10/100BASE-T

Testbed Configuration

LG #	LG Type	Network	Target File Systems	Notes
1	LG1	1	/F1, /F2, /F3, /F4, /F5, /F6, /F7, /F8	N/A
2	LG2	1	/F1, /F2, /F3, /F4, /F5, /F6, /F7, /F8	N/A
3	LG3	1	/F1, /F2, /F3, /F4, /F5, /F6, /F7, /F8	N/A
4..10	LG4	1	/F1, /F2, /F3, /F4, /F5, /F6, /F7, /F8	N/A

Notes/Tuning Information

Other Notes
-Each file system was configured on a Raid-0 volume with an 8k stripe unit size.
-Each file system contained 10 disks.
-Each file system was striped across each fibre channel port.
-File systems were exported with the following options:
-rw,sync,no_wdelay,insecure
-
-Disks enclosed in a total of 20 JMR 1U 2G Fibre JBOD 4-bay Rackmount Enclosures, 4 drives per enclosure.
-Enclosures were inter-connected to form 8 FC-AL drives per loop. Each loop was connected to a fibre channel port.
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-The number of nfsd process was limited to 128 by using the rpc.nfsd command.
-Because of a command behaviour issue, the user must first specify zero (0) processes and then repeat the command specifying 128 processes.
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-The following products are included:
-VERITAS Volume Manager 3.2
-VERITAS File System 3.4
-
-The Intel 82546 GbEthernet controller is a dual port controller,
-however only one port was used.
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-The Qlogic 2312 is a dual port controller. 5 controllers were used
-for a total of 10 fibre channel ports.