SPECweb96 Result

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Hewlett-Packard NetServer LXr 8000

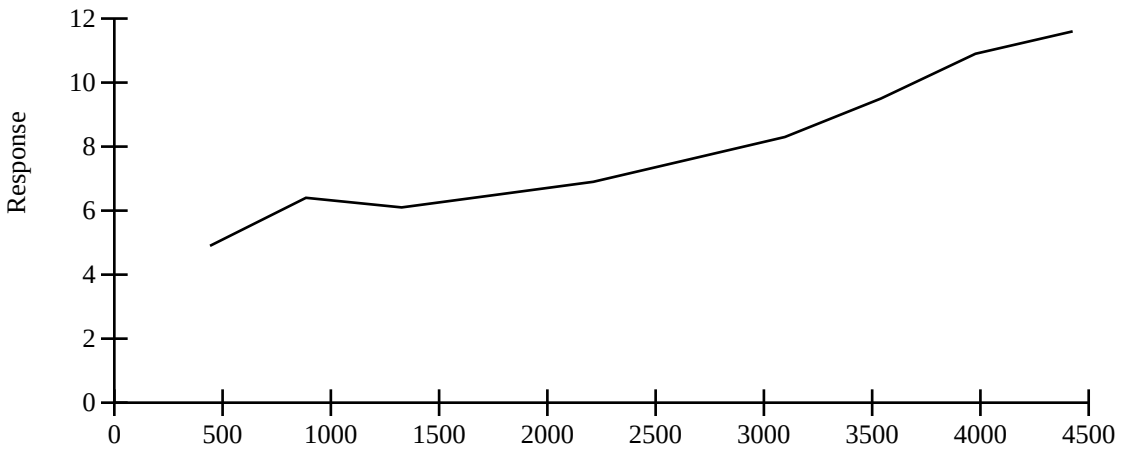
SPECweb96= 4426

Test Date : Nov-98

Tested by : Hewlett-Packard

Hardware Avail:	Nov-98	OS Avail:	May-99	HTTP Software Avail:	May-99	SPEC license #:	3

Throughput ops/sec	Response msec
442	4.9
885	6.4
1327	6.1
1770	6.5
2212	6.9
2655	7.6
3097	8.3
3540	9.5
3977	10.9
4426	11.6



Hardware

Model Name:	NetServer LXr 8000
Processor:	Pentium II Xeon 400MHz
# of Processors:	2
Primary Cache:	16KBI+16KBD on chip
Secondary Cache:	1MB(I+D) off chip
Other Cache:	None
Memory:	2.0 GB
Disk Subsystem:	5 4GB 10K RPM Drive
Disk Controllers:	1 Ultra2 SCSI
Other Hardware:	2 Alteon ACEswitch 180

Software

Operating System:	Microsoft Windows NT Server 4.0 EE SP 4
File System:	NTFS
Other Software:	None

HTTP Software

Vendor:	Microsoft
HTTP Software:	Microsoft SWC 1.1 and IIS 4.0
# of "threads":	1
Server Cache:	Microsoft Scalable Web Cache 1.1
Log Mode:	Binary CLF

Network

# of Controllers:	2
Network Controllers:	Alteon ACEnic PCI Gigabit
# of Nets:	2
Type of Nets:	Jumbo Frame Gigabit
Network Speed:	1000Mb/s
Time Wait (secs):	60 (Non RFC1122)

Load Generators

# of Load Generators:	6
# of Processes Each:	14
Model:	Hewlett-Packard Kayak XU
Processor:	Pentium II 450MHz
# of CPUs:	2
Memory:	128MB
OS:	Microsoft Windows NT Workstation 4.0 SP 4
Compiler:	Microsoft Visual C++ 5.0

Benchmark Configuration

Max Requested Load:	4425
Max Fileset Size (MB):	1454

Notes/Tuning Information

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Each switch connects one card in the SUT and three of the clients.
MTU size = 9000 bytes.
Using Microsoft Scalable Web Cache 1.1 with Microsoft Internet Information Server 4.0
Performance Boost for Foreground Application=NONE ---Do not raise the priority of the foreground application, default is halfway.
IIS settings: listen port 81, logging disabled, expected hits fewer than 10000, no ISAPI filters, disable NT challenge/response.
IIS Home Directory: Access for  Read  and  Directory Browsing Allowed  only, Application Settings permissions "none".
Added Registry Entry Tcpip/Parameters/MaxHashTableSize=0x10000 ---Sets TCB hash table size to 65,536 entries, default is 512.
Added Registry Entry Tcpip/Parameters/MaxUserPort=0xfffe
Added Registry Entry Tcpip/Parameters/TcpTimedWaitDelay=0x3c ---Sets TIME_WAIT parameter to 60 seconds (non-RFC 1122), default is 240.
Added Registry Entry Tcpip/Parameters/MaxFreeTwTcbs=480000 --Sets maximum number of TIME_WAIT tcbs to 480,000.
Set NDIS/Parameters/ProcessorAffinityMask to 0 ---Forces processor that handled interrupt to also handle that DPC, default is any processor.
Added Registry Entry Inetinfo/Parameters/ObjectCacheTTL=0
Added Registry Entry Inetinfo/Parameters/OpenFileInCache=0
Added Registry Entry Inetinfo/Parameters/MaxPoolThreads=1
Added Registry Entry Inetinfo/Parameters/PoolThreadLimit=2
For each Alteon NIC:
-Added Registry Entry Altndis(X)/Parameters/SendCoalMax=0x14 --Sets number of send buffer descriptors in send ring.
-Added Registry Entry Altndis(X)/Parameters/RecvCoalMax=0x28 -- Sets number of frames received before notifying host.
-Added Registry Entry Altndis(X)/Parameters/SendCoalTicks=0x3e8 --Sets number of microsec. before send buffers are returned to host.
-Added Registry Entry Altndis(X)/Parameters/RecvCoalTicks=0x3e8. -- Sets number of microsec. before recv. buffers are given to host.
-Set Registry Entry Altndis(X)/Parameters/JumboFrames=0x1. -- Enables Jumbo Frame support.
Network interrupts affinitized one NIC per CPU.
SWC configured with 1 thread per NIC affinitized to same CPU as NIC.
One 4GB 7200RPM disk for OS, 4 4GB 10KRPM disk for web pages and logs and pagefile.
Post-SP4 TCP/IP hotfix transport available May-99
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