SPECweb96 Result

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Dell Computer Corporation PowerEdge 6350/500

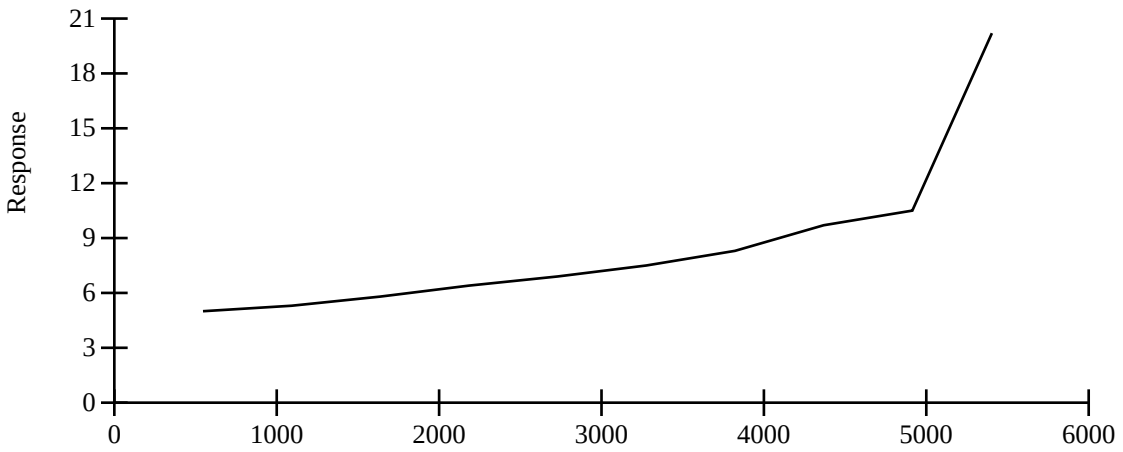
SPECweb96= 5404

Test Date : May-99

Tested by: Dell Computer Corporation

Hardware Avail:	Mar-99	OS Avail:	May-99	HTTP Software Avail:	Jul-99	SPEC license #:	55

Throughput ops/sec	Response msec
546	5.0
1092	5.3
1638	5.8
2184	6.4
2730	6.9
3276	7.5
3822	8.3
4368	9.7
4914	10.5
5404	20.2



Hardware

Model Name:	PowerEdge 6350/500
Processor:	500MHz Pentium III Xeon
# of Processors:	2
Primary Cache:	16KBI+16KBD on chip
Secondary Cache:	2MB(I+D) off chip
Other Cache:	None
Memory:	4GB
Disk Subsystem:	3 9GB 10K RPM Drive
Disk Controllers:	1 Adaptec Ultra-SCSI
Other Hardware:	2 Alteon ACEswitch 180

Software

Operating System:	Windows NT Server 4.0 EE SP4
File System:	NTFS
Other Software:	None

HTTP Software

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

Network

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

Load Generators

# of Load Generators:	8
# of Processes Each:	15
Model:	Dell Precision 410
Processor:	450MHz Pentium II
# of CPUs:	2
Memory:	128MB
OS:	Microsoft Windows NT 4.0 Workstation SP4
Compiler:	Microsoft Visual C++ 5.0

Benchmark Configuration

Max Requested Load:	5460
Max Fileset Size (MB):	1616

Notes/Tuning Information

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Each ACEswitch 180 connects one card in the SUT and four clients.
MTU size = 9000 bytes.
IIS settings: listen port 81, no logging, expected hits fewer than 10000, no ISAPI filters, NT challenge/response disabled.
IIS Home Directory: Access for Read and Directory Browsing Allowed only, Application Settings permissions "none".
Network interrupts affinitized one NIC per CPU.
SWC configured with 1 thread per NIC affinitized to same CPU as NIC.
One 9GB 10KRPM disk for OS and pagefile, 2 9GB 10KRPM disks striped for web pages and logs.
Registry Settings:
- Tcpip/Parameters/MaxHashTableSize=0x10000, sets TCB hash table size to 65,536 entries, default is 512.
- Tcpip/Parameters/TcpTimedWaitDelay=0x3c, sets TIME_WAIT parameter to 60 seconds (non-RFC 1122), default is 240.
- Tcpip/Parameters/MaxFreeTwTcbs=580000, sets maximum number of TIME_WAIT tcbs to 580,000.
- NDIS/Parameters/ProcessorAffinityMask=0, forces processor that handled interrupt to also handle that DPC, default is any processor.
- Inetinfo/Parameters/ObjectCacheTTL=0, sets IIS object cache timeout to 0 seconds, default 10 minutes
- Inetinfo/Parameters/OpenFileInCache=0, sets number of open files in object cache to 0
- Inetinfo/Parameters/MaxPoolThreads=1, sets pool threads per processor, default is 10
- Inetinfo/Parameters/PoolThreadLimit=4, sets total pool threads per system to 4
For each Alteon NIC:
- Altndis(X)/Parameters/SendCoalMax=100, sets number of send buffer descriptors in send ring.
- Altndis(X)/Parameters/RecvCoalMax=20, sets number of frames received before notifying host.
- Altndis(X)/Parameters/SendCoalTicks=1000, sets number of microsec. before send buffers are returned to host.
- Altndis(X)/Parameters/RecvCoalTicks=1000, sets number of microsec. before recv buffers are given to host.
- Altndis(X)/Parameters/JumboFrames=1,enables Jumbo Frame support.
Alternate HTTP/HT.c used.  Repeated client-side calls to gethostbyname() omitted, as approved
 by SPEC.  No change in measured server performance but reduction in client load.
Post-SP4 TCP/IP hotfix transport available May-99
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