

# SPECweb99 Result

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IBM: eServer xSeries 330  
Microsoft: IIS 5.0

SPECweb99 = 1026

Test Date: Oct-2000  
Tester: IBM

Hardware Avail: Oct-2000 OS Avail: Feb-2000 HTTP Software Avail: Feb-2000 Sup. Software Avail: -- SPEC license #: 11

## Hardware

Vendor: IBM  
Model: eServer xSeries 330  
Processor: 800MHz Pentium III  
# Processors: 2 cores, 2 chips, 1 core/chip  
Primary Cache: 16KBI+16KBD on chip  
Secondary Cache: 256KB  
Other Cache: None  
Memory: 4GB  
Disk Subsystem: 1 CDROM, 2 9GB SCSI Drives  
Disk Controllers: IBM ServeRAID 4L  
Other Hardware: 1 Alteon ACEswitch 180 GbE Switches

## Software

Operating System: Windows 2000 Advanced Server  
File System: NTFS  
Other Software: None

## HTTP Software

Vendor: Microsoft  
HTTP Software: IIS 5.0  
API: ISAPI  
Server Cache: None  
Log Mode: W3SVC

## Test Sponsor

Test Date: Oct-2000  
Tested By: IBM  
SPEC License: 11

## Network

# of Controllers: 1  
Network Controllers: Alteon ACEnet PCI  
# of Nets: 1  
Type of Nets: Gigabit Ethernet  
Network Speed: 1000Mb/s  
MSL (sec): 30 (Non RFC1122)  
Time-Wait (sec): 60 (Non RFC1122)  
MTU: 1500

## Clients

# of Clients: 6  
Model: IBM IntelliStation Z Pro  
Processor: 450MHz Pentium III Xeon  
# of Processors: 2  
Memory: 256MB  
Network Controller: Alteon ACEnic PCI  
Operating System: Microsoft Windows 2000 Professional  
Compiler: Microsoft VC++ v6.0

## Notes/Tuning Information

### SUT Notes

System: Set as file server (background services), the default  
Embedded 100Base-TX network adapters were disabled for the test

### Operating System Notes

Tuning Parameters:

- Tcpip/Parameters/MaxFreeTwTcbs=220000, sets maximum number of TIME\_WAIT tcbs to 220,000
- Tcpip/Parameters/MaxHashTableSize=0x8000, sets TCB hash table size to 16,384 entries, default 512
- Tcpip/Parameters/MaxUserPort=0xfffe, sets maximum open ports to 65534
- Tcpip/Parameters/NumTcbTablePartitions=16, sets number of independent TCB table segments, default 4
- Tcpip/Parameters/TcpTimedWaitDelay=60, sets TIME\_WAIT parameter to 60 seconds (non-RFC 1122), default 240
- Inetinfo/Parameters/AcceptExTimeout=1, sets time for accept ex socket to wait for receive, default 120
- Inetinfo/Parameters/ListBacklog=1000, default 25
- Inetinfo/Parameters/LogFileFlushInterval=60, forces flush every 60 seconds, default 300
- Inetinfo/Parameters/ObjectCacheTTL=0xfffff, sets IIS object cache timeout, default 10 minutes
- Inetinfo/Parameters/MaxPoolThreads=4, maximum network request threads per processor, default 10
- Inetinfo/Parameters/PoolThreadLimit=8, maximum pool threads in system, default 2\*#MB
- Inetinfo/Parameters/MemCacheSize=1800, maximum amount of memory that IIS will use for its file cache, default 50% of available memory
- Inetinfo/Parameters/MaxCachedFileSize=650000, maximum size of file in bytes that can be placed in the cache, default 262144

Alteon NIC settings:

- RxFlowControl=0 (off), default 1 (On)
- IntCount=10000, sets total number loops DPC would process before interrupting, default 1000
- RecvCoalMax=80, sets number of buffers received before notifying host, default 20
- RecvCoalTicks=10000, sets number of microsec before recv buffers are given to host, default 1000
- SendCoalMax=40, sets number of buffers sent before notifying host, default 20
- SendCoalTicks=10000, sets number of microsec before send buffers are returned to host, default 1000
- StatTicks=0, Default 100000

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## Notes/Tuning Information (Continued)

### HTTP Software Notes

IIS set for more than 100,000 hits/day  
IIS Home Directory: Access for Read & Write, Scripts & Executables  
IIS Virtual Directory spec99 points back to web server root, low application protection  
IIS Logging: W3C Extended logging, defaults plus bytes sent; minus user agent

### HTTP API Notes

Microsoft ISAPI for IIS 5.0 compiled with VC++6.0 code optimization=Pentium Pro  
CGI program is in IBM-20000612-ISAPI.zip

### Hardware Notes

2 disk in RAID0 64K stripe, write through mode, rebuild priority low, 8 MB cache  
All drives formatted NTFS  
System on "C" with default file allocation size  
Benchmark files on "E" with file allocation size 128K  
Logfile on "F" with file allocation size 32K

### Client Notes

Tcpip/Parameters/MaxUserPort = 0xffff, sets maximum open port to 65534