

# SPECweb99\_SSL Result

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IBM: IBM eServer iSeries i890-2487(1587)

SPECweb99\_SSL =4497

IBM: HTTP Server (powered by Apache 2.0.39)

Test Date:  
Tester:

Dec-2002  
IBM

Hardware Avail: Aug-2002 OS Avail: Nov-2002 HTTPS Software Avail: Nov-2002 Sup. Software Avail: Aug-2002 SPEC license #: 11

## Hardware

Vendor: IBM  
Model: IBM eServer iSeries i890-2487(1587)  
Processor: 1.3 GHz POWER-4  
# Processors: 16 cores, 16 chips, 1 core/chip  
Primary Cache: 64KBI+32KBD (on chip) per CPU  
(2 CPU per chip)  
Secondary Cache: 1440KB unified (on chip), shared per chip  
(2 CPU per chip)  
Other Cache: 128MB unified (off-chip) per MCM,  
2 MCM's in SUT (4 chips per MCM)  
Memory: 196.6 GB  
Disk Subsystem: 130: 6718-050 17.5GB SCSI DASD  
Disk Controllers: 11: 2778-001 PCI Disk Unit Controller  
Other Hardware: Cisco Systems Catalyst 6500 Gb Switch

## Software

Operating System: OS/400 V5R2  
File System: iSeries Integrated File System  
Other Software: 5722999 PTF MF29320  
5722999 PTF MF29780  
5722999 PTF MF29781  
5722999 PTF MF29789  
5722DG1 PTF SI06807

## HTTPS Software

Vendor: IBM  
HTTPS Software: HTTP Server (powered by Apache 2.0.39)  
API: Apache API  
Server Cache: None  
Log Mode: CLF (Common Log Format)

## Test Sponsor

Test Date: Dec-2002  
Tested By: IBM  
SPEC License: 11

## Network

# of Controllers: 15  
Network Controllers: 2743 Gbps Ethernet IOA  
# of Nets: 15  
Type of Nets: Gigabit Ethernet  
Network Speed: 1 Gb/s  
MSL (sec): 30 (Non RFC1122)  
Time-Wait (sec): 60 (Non RFC1122)  
MTU: 1500

## Clients

# of Clients: 30  
Model: pSeries 7044-270  
Processor: 450 Mhz POWER-3 (630+)  
# of Processors: 2  
Memory: 7816 MB  
Network Controller: Alteon Networks, Inc. AceNIC Gigabit Ethernet (Fibre)  
Operating System: SUSE Linux 2.4.13-ppc64-SMP  
Compiler: gcc version 3.0.2 20011104

## Notes/Tuning Information

### SUT Notes

MCM Multi-chip Module ; 2 MCM's in SUT (4 chips per MCM)  
2 CPUs per chip  
SUT System Under Test  
Base I/O tower (contained 2 Gigabit Ethernet adapters)  
(2) 5078 PCI Expansion Unit (contained 3 Gigabit Ethernet adapters per 5078)  
(2) 5074 PCI Expansion Unit (contained 3 Gigabit Ethernet adapters)  
(1) 5074 PCI Expansion Unit (contained 1 Gigabit Ethernet adapter)

### Operating System Notes

CHGTCPA TCPCLOTIMO(60), Tcp closed timewait timeout changed to 60, default 120  
MF29320 - SOCKETS scaling improvement fix  
MF29780, MF29781, MF29789 - coreqs of each other, SSL handshake fixes, SSL take down error fix, SSL encryption object memory fix

### HTTPS Software Notes

1 HTTP server was used  
ListenBackLog 3000, Default: ListenBacklog 511  
HotBackup off, Default: HotBackup on  
TimeOut 320, Default: TimeOut 300  
KeepAliveTimeout 320 , Default: KeepAliveTimeout 300

For more  
Information  
Contact

SPEC

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http://www.spec.org

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## Notes/Tuning Information (Continued)

### HTTPS Software Notes (Continued)

ThreadsPerChild 360, Default: ThreadsPerChild 40  
LiveLocalCache off, Default: LiveLocalCache on  
ServerRoot /QIBM/UserData/HTTPPA, Default: none  
ServerName Firefly.rchland.ibm.com, Default: none  
ScriptAlias /specweb99/ /QSYS.LIB/specweb99.LIB/, Default: none  
DocumentRoot /, Default: DocumentRoot /QIBM/UserData/HTTPPA/htdocs  
LogFormat "%h %t \"%r\" %s %b" "Specweb Required", Default: LogFormat "%h %l %u %t \"%r\" %s %b"  
"CustomLog logs/specweb\_access\_ssl.log "Specweb required", Default: none  
LoadModule sw99\_module /QSYS.LIB/SSALPHA8.LIB/MODSW99SSL.SRVPGM, Default: none  
LoadModule ibm\_ssl\_module /QSYS.LIB/QHTTPSVR.LIB/QZSRVSSL.SRVPGM, Default: none  
UseShutdown on, default off  
SI06807 - Cumulative iSeries HTTP Server (powered by Apache 2.0.39) fixes

### Other Notes

Tuning Disclosure: IBM-20021223.txt  
Dynamic API: IBM-20020819-ssl-API.zip