SPECweb99_SSL Result

IBM: IBM eServer iSeries i890-2487(1587)
IBM: HTTP Server (powered by Apache 2.0.39)

SPECweb99_SSL =4497

Test Date: Dec-2002
Tester: 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

SPECweb99_SSL Result

Notes/Tuning Information (Continued)

HTTPS Software Notes (Continued)

ThreadsPerChild 360, Default: ThreadsPerChild 40
LiveLocalCache off , Default: LiveLocalCache on
ServerRoot /QIBM/UserData/HTTPA , Default: none
ServerName Firefly.rchland.ibm.com , Default: none
ScriptAlias /specweb99/ /QSYS.LIB/specweb99.LIB/ , Default: none
DocumentRoot / , Default: DocumentRoot /QIBM/UserData/HTTPA/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