

SPECweb99_SSL Result

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Sun Microsystems: Sun Fire V240
Sun Microsystems: Sun ONE Web Server 6.0 SP5

SPECweb99_SSL = 833

Test Date: Mar-2003
Tester: Sun Microsystems

Hardware Avail: May-2003 OS Avail: Apr-2003 HTTPS Software Avail: Dec-2002 Sup. Software Avail: Mar-2003 SPEC license #: 6

Hardware

Vendor: Sun Microsystems
Model: Sun Fire V240
Processor: 1002MHz UltraSPARC IIIi
Processors: 2 cores, 2 chips, 1 core/chip
Primary Cache: 32KBI+64KBD on chip
Secondary Cache: 1MB(I+D) on chip
Other Cache: none
Memory: 8 GB
Disk Subsystem: 2 x 36GB Ultra160SCSI
Disk Controllers: Integrated Ultra160SCSI
Other Hardware: 2 x Cisco Catalyst 3508 XL Switch
Sun Crypto Accelerator 500

Software

Operating System: Solaris 9 4/03
File System: UFS
Other Software: Sun Crypto Accelerator 1000 patch 114790-01
Netscape Security Services Libraries - NSS 3.4

HTTPS Software

Vendor: Sun Microsystems
HTTPS Software: Sun ONE Web Server 6.0 SP5
API: NSAPI
Server Cache: SNCA
Log Mode: SNCA Binary CLF

Test Sponsor

Test Date: Mar-2003
Tested By: Sun Microsystems
SPEC License: 6

Network

of Controllers: 2
Network Controllers: Internal SUN Broadcom Ethernet
of Nets: 2
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: 8
Model: Ultra 60
Processor: 450MHz UltraSPARC II
of Processors: 2
Memory: 512MB
Network Controller: Sun GigaSwift Ethernet
Operating System: Solaris 8 2/02
Compiler: Sun Workshop 6 update 2 C 5.3

Notes/Tuning Information

SUT Notes

Operating System Notes

```
set autoup=60
set rlim_fd_max=131072
set rlim_fd_cur=131072
set segmap_percent=90
set maxpgio=128
set tcp:tcp_conn_hash_size=65536
set nca:nca_ppmax=840000
set nca:nca_vpmax=840000
set nca:nca_conn_hash_size=393209
set nca:nca_conn_req_max_q=10240
set nca:nca_conn_req_max_q0=10240
set nca:ncaurhash_sz=289669
set nca:nca vnodehash_sz=289669
set nca:nca_ppthresh=128
/usr/sbin/ndd -set /dev/nca nca_http_keep_alive_timeout 30000
/usr/sbin/ndd -set /dev/nca nca_max_cache_size 1000000
/usr/sbin/ndd -set /dev/nca nca_segmap_min_size 4096
/usr/sbin/ndd -set /dev/nca nca_use_segmap 1
/usr/sbin/ndd -set /dev/tcp tcp_time_wait_interval 60000
/usr/sbin/ndd -set /dev/tcp tcp_conn_req_max_q 8192
/usr/sbin/ndd -set /dev/tcp tcp_conn_req_max_q0 8192

/etc/nca/nca.if: bge1 bge2, /etc/nca/ncakmod.conf: status=enabled
```

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Notes/Tuning Information (Continued)

Operating System Notes (Continued)

```
/etc/nca/ncalogd.conf: status=enabled, logd_file_size=1000000000  
/etc/nca/ncalogd.conf: logd_path_name=/http_logs/log0 ... /http_logs/log5
```

HTTPS Software Notes

Sun ONE 6.0 Tuning

Two unique instances of Sun One started.

The first instance listening on port 80

The second instance listening on port 443

config/magnus.conf (one per instance):

```
RqThrottle 16  
CGIWaitPid on  
GIStubIdleTimeout 10000  
ThreadIncrement 10  
ConnQueueSize 8192  
MaxKeepAliveConnections 0  
KeepAliveTimeout 0
```

config/obj.conf (one per instance):

Disable PathCheck for 'check-acl'

config/nsfc.conf (one per instance):

```
FileCacheEnable=true  
CopyFiles=false  
TransmitFile=true  
CacheFileContent=true  
MaxAge=86400  
MaxFiles=65536  
MaxOpenFiles=65536  
SmallFileSizeLimit=1000000  
SmallFileSpace=1  
MediumFileSizeLimit=1000001  
MediumFileSpace=1
```

config/server.xml - webserver instance listening on port 80:

```
Disable ACLFILE  
acceptorthreads=2  
family=nca
```

config/server.xml - webserver instance listening on port 443:

```
Disable ACLFILE  
acceptorthreads=2  
family=nca  
SSLPARAMS  
security=on  
ssl2=no  
ssl3=yes  
ssl3tlsciphers+=rsa_rc4_128_sha  
tls=no  
clientauth=no
```

HTTP API Notes

Dynamic API: SUN-20010412-API.tar.gz

Compiled with Sun WorkShop 6 update 2 C 5.3

CFLAGS: -c -x04 -DMCC_HTTPD -DXP_UNIX -DSPAPI20

IFLAGS: -I. -I\$(INCLUDEDIR) -I\$(INCLUDEDIR)/base -I\$(INCLUDEDIR)/frame -I\$(INCLUDEDIR)/nspr

LDFLAGS: -G

Flag descriptions in SUN-20030331-APIFlags.txt

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Notes/Tuning Information (Continued)

Hardware Notes

Disk Configuration:
OS & access logs - 1 Internal Ultra160SCSI disk
file_set & post log - 1 Internal Ultra160SCSI disk

Network Notes

2x4 load generators used with each onboard network interface

Client Notes

set sq_max_size=0, set hires_tick=1
nnd -set /dev/tcp tcp_smallest_anon_port 2048
nnd -set /dev/tcp tcp_time_wait_interval 60000
Client code generated with: CFLAGS=-xO4 -xchip=ultra -xarch=v8plusa
./configure --enable-posix-threads --enable-gethostbyname_r --enable-pthread_scope_system --enable-rlimit --enable-safe-usleep=no

Other Notes

Tuning Disclosure: Sun-20030331.txt
Sun ONE Web Server 6.0 Tuning Guide: <http://docs.sun.com>

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