

EVENT DRIVEN SERVER

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2014A3A70302P

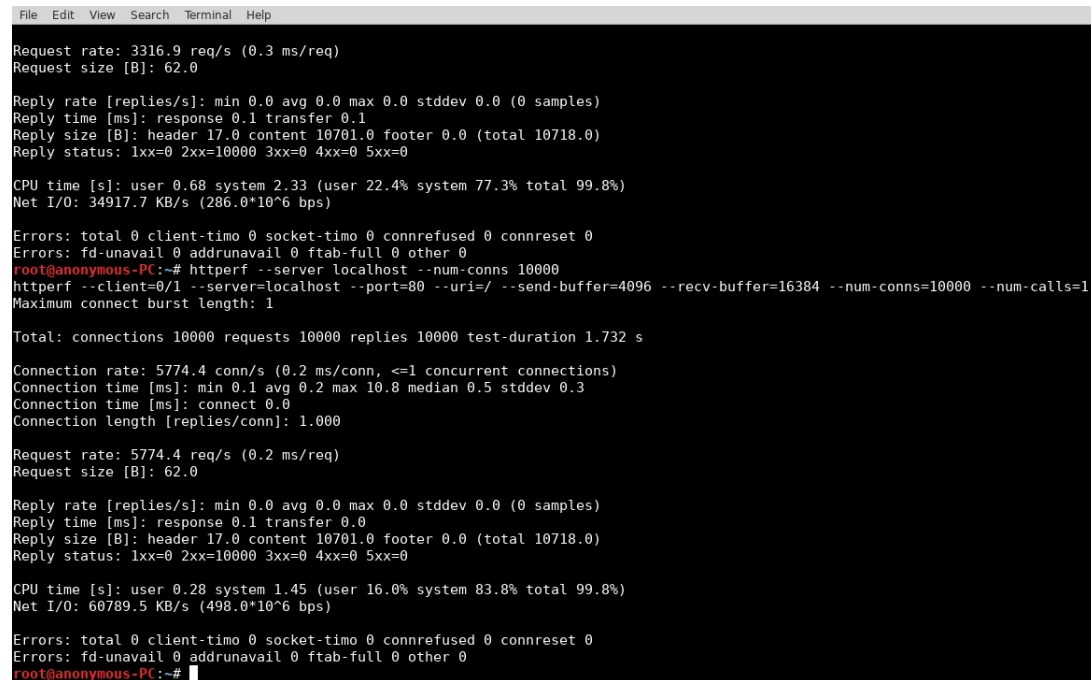
Event Driver Web Server modelled after lighttpd. Prototype for the C10K problem. Single threaded single process based server. Uses epoll and non-blocking io operations for high performance. To further improve response time it buffers the static webpages. Supports GET requests and non-persistent HTTP only. Currently it searches for requested file only in directory specified.

To configure the web server, modify the following constants in the code

(Default values are listed below)

```
#define IP "127.0.0.1"
#define PATH "/var/www/html/"
#define PORT 80
#define LISTEN_BACKLOG 1000
#define DEFAULTPATH "/index.html"
```

HTTPERF Results



```
File Edit View Search Terminal Help
Request rate: 3316.9 req/s (0.3 ms/req)
Request size [B]: 62.0

Reply rate [replies/s]: min 0.0 avg 0.0 max 0.0 stddev 0.0 (0 samples)
Reply time [ms]: response 0.1 transfer 0.1
Reply size [B]: header 17.0 content 10701.0 footer 0.0 (total 10718.0)
Reply status: 1xx=0 2xx=10000 3xx=0 4xx=0 5xx=0

CPU time [s]: user 0.68 system 2.33 (user 22.4% system 77.3% total 99.8%)
Net I/O: 34917.7 KB/s (286.0*10^6 bps)

Errors: total 0 client-timo 0 socket-timo 0 connrefused 0 connreset 0
Errors: fd-unavail 0 addrunavail 0 ftab-full 0 other 0
root@anonymous-PC:~# httpperf --server localhost --num-conns 10000
httpperf --client=0/1 --server=localhost --port=80 --uri=/ --send-buffer=4096 --recv-buffer=16384 --num-conns=10000 --num-calls=1
Maximum connect burst length: 1

Total: connections 10000 requests 10000 replies 10000 test-duration 1.732 s

Connection rate: 5774.4 conn/s (0.2 ms/conn, <=1 concurrent connections)
Connection time [ms]: min 0.1 avg 0.2 max 10.8 median 0.5 stddev 0.3
Connection time [ms]: connect 0.0
Connection length [replies/conn]: 1.000

Request rate: 5774.4 req/s (0.2 ms/req)
Request size [B]: 62.0

Reply rate [replies/s]: min 0.0 avg 0.0 max 0.0 stddev 0.0 (0 samples)
Reply time [ms]: response 0.1 transfer 0.0
Reply size [B]: header 17.0 content 10701.0 footer 0.0 (total 10718.0)
Reply status: 1xx=0 2xx=10000 3xx=0 4xx=0 5xx=0

CPU time [s]: user 0.28 system 1.45 (user 16.0% system 83.8% total 99.8%)
Net I/O: 60789.5 KB/s (498.0*10^6 bps)

Errors: total 0 client-timo 0 socket-timo 0 connrefused 0 connreset 0
Errors: fd-unavail 0 addrunavail 0 ftab-full 0 other 0
root@anonymous-PC:~#
```