Stats field names (Management Guide §9)

- `rate_lim` configured limit on new sessions per second
- `qmax` max value of qcur
- `pid` server id (unique inside a proxy)
- `mode` proxy mode (tcp, http, health, unknown)
- `lastsess` last health check contents or textual error
- `last_agt` last agent check contents or textual error
- `hrsp_Yxx` number of HTTP responses that were compressed
- `eresp` number of data transfers aborted by the server
- `ereq` number of data transfers added to the compressor
- `econ` number of HTTP response bytes emitted by the compressor
- `dresp` number of HTTP responses that were compressed
- `rtime` avg total session time in ms over the 1024 last requests
- `rtime_max` max observed total session time in ms
- `rtime_max_1024` the maximum observed total session time over the last 1024 requests
- `tracked` number of connections between the last observed second
- `tracked_max` highest known conn_rate
- `conn_rate` cumulative number of connections
- `connect` cumulative number of connection establishment attempts
- `cookie` server's cookie value or backend's cookie name
- `ctime` average connect time in ms over the 1024 last requests
- `ctime_max` current throttle percentage for the active server
- `downtime` configured maxqueue for the server
- `status` configured session limit
- `max` max number of HTTP requests per second observed
- `req_tot` max number of HTTP requests received for the server
- `reuse` max number of sessions
- `time` limit on the number of idle connections
- `num` current number of idle connections available for reuse
- `status` number of sessions
- `session` service name
- `throttle` current throttle percentage for the active server
- `tracked` number of data transfers added to the compressor
- `track_rise` number of times a request was redirected to another server
- `wretr` number of times a connection was refused
- `rtime` average total session time in ms over the 1024 last requests
- `rate_max` max number of new sessions per second
- `rate_max_1024` max number of new sessions per second
- `hrsp_Yxx` number of HTTP responses that were compressed
- `eresp` number of data transfers added to the compressor
- `ereq` number of data transfers added to the compressor
- `econ` number of HTTP response bytes emitted by the compressor
- `dresp` number of HTTP responses that were compressed
- `rtime` avg total session time in ms over the 1024 last requests
- `rtime_max` max observed total session time in ms
- `rtime_max_1024` the maximum observed total session time over the last 1024 requests
- `type` type of data transfer (tcp, http, unknown)
- `weight` total weight (backend, server weight (server)
- `wretr` number of times a request was redirected to another server
- `rtime` average total session time in ms over the 1024 last requests
- `rate_max` max number of new sessions per second
- `rate_max_1024` max number of new sessions per second
- `hrsp_Yxx` number of HTTP responses that were compressed
- `eresp` number of data transfers added to the compressor
- `ereq` number of data transfers added to the compressor
- `econ` number of HTTP response bytes emitted by the compressor
- `dresp` number of HTTP responses that were compressed
- `rtime` avg total session time in ms over the 1024 last requests
- `rtime_max` max observed total session time in ms
- `rtime_max_1024` the maximum observed total session time over the last 1024 requests
Timing (Configuration Manual §8.4)

- Ta (http): total active time for the request (=Tr+Tc+Tt+Td)
- Tc: time to establish connection to the server
- Td: data transmission time
- Th: total time to accept tcp connection and handshakes (ssl)
- Ti (http): idle time before first packet
- Tq: total time to get the client request (=Tt+Ti+TR)
- TR (http): total time to get the client request after handshakes
- Tr (http): server response time
- Tw: total session duration time (=Tq+Tc+Tt+Tr+Td)
- T_w: time waiting

Session state (Configuration Manual §8.5)

- C: session unexpectedly aborted by the client
- P: session prematurely aborted by the proxy
- L: locally processed and not passed by the server
- H: resource on the proxy exhausted
- I: internal error
- D: session killed by proxy, when server goes down
- U: session to backup server killed when others go up
- K: actively killed by admin on proxy
- t: client timeout
- s: server timeout
- -: normal session completion
- R: proxy waiting for complete REQUEST from the client
- Q: proxy waiting in the queue for a slot
- H: proxy waiting for connection to established
- J: proxy waiting for response headers from server
- D: session in DATA phase
- L: proxy transmit LAST data to client while server already finished
- T: request abort
- T: tarpit

HAPProxy response code

The error 4xx and 5xx codes above may be customized

- 30x: redirection, depending on the configured code
- 400: access to stats page, and when replying to monitoring requests
- 401: when an authentication is required to perform the action (stats)
- 403: when a request is forbidden by a "http-request deny" rule
- 408: when the request timeout was exceeded before the request is complete
- 500: when haproxy encounters an unrecoverable internal error
- 502: deny response or empty, invalid or incomplete response by server
- 503: monitor fail or no server was available to handle the request
- 504: when the response timeout was exceeded before the server responds
- 506: redirection, depending on the configured code

Command Line & System (Management Guide §3)

```
$ haproxy -f /etc/haproxy.cfg -D -- /var/run/haproxy.pid -sf $(cat /var/run/haproxy.pid)
```

- `-f <CFG>`: define configuration file
- `-C <PATH>`: change directory
- `-c <configuration check>`
- `-d`: daemon mode
- `-dl[x]`: debug (x as options)
- `-l <NAME>`: local peer name
- `-N <LIMIT>`: default frontend maxconn
- `-m <LIMIT>`: management limit to LIMIT
- `-n <LIMIT>`: maxconn limit to LIMIT
- `-q <LIMIT>`: quiet
- `-S BIND[,...]`: master-worker bind options
- `-sf <pid>`...: process to send SIGUSR1
- `-st <pid>`...: process to send SIGTERM
- `-v`...: verbose
- `-V <VERSION>`...: version [more verbose]
- `-W <WORKER>`...: master-worker mode
- `-x <SOCKET>`...: socket migration

Tricks & Tuning (Management Guide §5-7)

```
$ kill -USR1 <PID>
```

- `-USR1`: stop listening

```
$ kill -USR2 <PID>
```

- `-USR2`: restart master worker

```
$ kill -TERM <PID>
```

- `-TERM`: flush pools

```
$ kill -QUIT <PID>
```

- `-QUIT`: reset all system sockets

```
$ netstat -anp
```

- `-anp`: list all open files

```
$ lsof
```

- `-lsof`: list all open files

```
$ ulimit -n
```

- `-ulimit`: set number of file descriptors

```
$ (VAR) or $VAR within double quoted strings in config files use environment value
```

- `HAPROXY_LOCALPEER`
- `HAPROXY_CFGFILES`
- `HAPROXY_MWORKS`
- `HAPROXY_CLI`
- `HAPROXY_MASTER_CLI`

```
$ [VAR] or $VAR within double quoted strings in config files use environment value
```

- `HAPROXY_LOCALPEER`
- `HAPROXY_CFGFILES`
- `HAPROXY_MWORKS`
- `HAPROXY_CLI`
- `HAPROXY_MASTER_CLI`

HAPProxy® is a registered trademark of HAProxy Technologies - 2020-03-12

HAPProxy® Troubleshooting Reference Card by Zenetys - 2020-03-12