Identifying and stopping threats in today’s ever-changing security landscape requires a multilayered approach. HAProxy delivers peace of mind by immobilizing threats at the edge without sacrificing the best-in-class performance that it's known for.

**LAYERS 1 - Access Control Lists (ACLs)**

The first layer is our flexible Access Control Lists (ACLs). They match on custom-defined criteria, allowing you to lock down your applications by IP range, SSL data, request and response headers or paths, geolocation, and device type.

You decide how to handle suspicious clients. Response policies include blocking, tarpitting, shadow banning, and presenting a JavaScript or reCAPTCHA challenge.

**LAYERS 2 - Client Fingerprinting**

A second layer unmasks clients that try to sneak past with forged request data. HAProxy attaches fingerprints to clients based on 19 different characteristics and is able to triangulate on the data to form an accurate ID.

Bots and scanners are identified immediately, before they have a chance to do harm.

**LAYERS 3 - Realtime Cluster-wide Tracking**

The third layer of defense deploys behavior-analysis across your entire cluster of proxies. HAProxy performs real-time tracking of client requests and stores that data to form big-picture insights about what a client may be trying to do.

Track behavior based on IP address, User-Agent string, session ID, and request path. Generated metrics include requests/sec, total number of requests made, errors/sec, total number of errors, byte rates, and more.

**LAYERS 4 - Web Application Firewall (WAF)**

HAProxy provides a fourth layer of defense: an integrated Web Application Firewall (WAF). The WAF detects and stops Layer 7 attacks including SQL injection and cross-site scripting.

The HAProxy WAF comes with support for ModSecurity rulesets, whitelist-only mode, and an optional, simplified, set-and-forget SQLi / XSS WAF mode.
High Performance Security

Security incidents such as DDoS attacks, bot threats, and data theft cost companies millions in lost revenue. HAProxy’s security capabilities leverage an extremely efficient, flexible and dynamic code base that includes a skillfully built SSL stack and industry-leading ACL and Stick Table tracking systems.

HAProxy Enterprise keeps you ahead of today’s threats by extending the core capabilities to include cluster-wide, real-time behavioral analysis, content inspection, adaptive response policies, and much more.

Advanced ACLs and Tracking

Flexible Access Control Lists (ACLs) Provide Matching Based on a Myriad of Options:
- IP / CIDR
- SSL Data
- Map File Support
- Logical Operator Support
- Request/Response Headers and Paths

Realtime Cluster-wide Tracking:
- Generic Key-Value Storage
- Combine any Number of Metrics
- Real Time Tracking on any Number of Metrics:
  - Request/Error Rate and Counts
  - Unique Page Views per IP or User-Agent
  - Rate and Counts of Unique User-Agents per IP
  - Number of WAF Violations from an IP or User-Agent
  - And Much More

DDoS and Bot Protection

Detect and Protect against:
- GET/POST Floods
- Web Scraping
- Brute Forcing
- Vulnerability Scanning
- And Much More

- Advanced Fingerprinting

Response Policies:
- Request Rate Limiting, Shadow Banning, Tarpitting, and Dropping
- Challenge/Response and reCAPTCHA Support

Client Fingerprinting

- Identify bots and scanners immediately
- Triangulate data to form a unique ID
- Uncover clients that spoof HTTP headers

Web Application Firewall

- High Performance
- Blacklist / Signature Support
- Whitelist Support
- ModSecurity Ruleset Support
- Detailed Logging
- Whitelist Only Mode

SSL

- ECC/RSA
- OCSP Stapling
- Reduce Latency by Using OpenSSL Async Engine
- TLS Session Resumption
- Built-in Heartbleed Protection
- Zero Round Trip Time Resumption (0-RTT)

Extra Capabilities

- HTTP Header Sanitization
- Response Body Injection
- IP Masking Support
- Lua Scripting Support
- Runtime API
- Dynamic Update Support

WE WOULD LOVE TO HEAR FROM YOU
Contact the authoritative experts on HAProxy who will assist you in finding the solution that best fits your needs for deployment, scale, and security.

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