



HAProxy ALOHA

Hardware and Virtual Load Balancers

A simple all-in-one application delivery controller. Robust layer 7 and layer 4 load balancing with an intuitive interface to unlock high availability, scalable application performance, security, and observability.



Load Balancing

- Support for all types of protocols
- Distribution of requests towards specific servers according to their contents (content switching)
- Cookie-based persistence management and session monitoring
- TLS termination and offloading
- Full IP support / IPv6-ready
- Direct Server Return
- Numerous load distribution algorithms, applicable per group of balanced servers
- Support for Web Services and WebSockets
- URL redirection
- Global Server Load Balancing (GSLB) across geo-distributed datacenters, enhanced with HTTPS health checks



High Availability

- Continuous monitoring of servers
- Email Alerts as a Lua Module for customizable event monitoring
- Graceful server shutdown
- Overload protection
- Interaction with external routers by route announcement
- Unlimited number of servers per group
- Persistence information shared between nodes



Hardware Benchmarks

Operational mode			ALB 5350
Layer 7 Proxy	HTTPs 1.1 performance	Requests per second	286K
		Bandwidth	25.2Gbps
	HTTPs 2.0 performance	Requests per second	321K
		Bandwidth	13.7Gbps
New TLS keys per second	RSA 2048	9.3K	
	ECDSA 256	35.1K	
Layer 4 LB	New connections per second	Destination NAT mode	1.1M
		DSR mode	1.2M
Packet filtering	DDoS attack protection	TCP packet flood	up to 32.2M
		Invalid packets	39.0M

Hardware Appliance Licenses

LICENSES	8K	16K	32K	64K
Layer 7 Connections HTTP/s	8K	16K	32K	64K
Layer 7 Concurrent Connections	40K	80K	120K	160K
SSL TPS (TLS 1.3)	2,400	4,000	8,000	16,000
Layer 4 Connections/s	40,000	60,000	120,000	200,000
Hardware Type	ALB 5350	ALB 5350	ALB 5350	ALB 5350

Integration and Administration

- Network Management CLI
- VLAN support (802.1g)
- Configuration sync over WireGuard VPN (ChaCha20 symmetric encryption)
- Bridging and aggregation of interfaces
- Integration in transparent proxy mode
- Advanced monitoring and journaling: status of services and applications, connection details, activity statistics
- Web or CLI management interface (SSH or serial port access)
- Tools for malfunction diagnostics
- Multi-level management (supervision and configuration)
- Support of Syslog, SNMP, VRRP and NTP standards API
- Support for scriptable configuration
- Simplified management and integration of SSL certificates

Virtual Appliance Licenses

LICENSES	8K*	16K*	30K*	50K*
Layer 7 Connections HTTP/s	8K	16K	30K	50K
Layer 7 Concurrent Connections	40K	80K	120K	160K
SSL TPS (TLS 1.3)	2,400	4,000	8,000	16,000
Layer 4 Connections/s	40,000	60,000	120,000	200,000
Recommended Hypervisors	All	All	Hyper-V vSphere	vSphere
Recommended Memory	8G	8G	8G	8G
Min vCPUs	2 to 4	2 to 4	2 to 4	2 to 4

**Performance strongly depends on the hypervisor*

Security

- HAProxy Enterprise WAF
- HAProxy Enterprise Bot Management Module
- DDoS Protection
- Protocol validation
- Allowlist and denylist management
- ACL management
- Protection of select URLs
- Prevention of information leaks
- Filtering of HTTP/HTTPS requests and responses
- SSL information available via HTTP headers
- Management of SSL client certificates
- Behavioral analysis
- Protection against brute force attacks

Application Acceleration

- Unlimited number of servers per virtual service
- Management of server logs in offload mode
- TCP/HTTP acceleration by means of buffering
- Dynamic control of connections open to a server
- Management of connections open to a server
- Filtering of useless HTTP requests
- Quick release of connections
- HTTP compression for requests and responses
- Advanced reporting of response times per server and application
- Automated OCSP stapling