

# LBS & PROXY RESOURCES

## books

Michael Lucas, Absolute OpenBSD, 2nd ed.

## I3

“persist” attribute in OpenBSD Tables

<https://unix.stackexchange.com/questions/172025/persist-attribute-in-openbsd-tables>

Firewalling with OpenBSD's PF packet filter

<http://home.nuug.no/~peter/pf/en/>

---

## lbs theory

Load balancing (computing)

[https://en.wikipedia.org/wiki/Load\\_balancing\\_\(computing\)](https://en.wikipedia.org/wiki/Load_balancing_(computing))

Network Load Balancing

[https://en.wikipedia.org/wiki/Network\\_Load\\_Balancing](https://en.wikipedia.org/wiki/Network_Load_Balancing)

## I3

Load Balance Incoming Connections

<https://www.openbsd.org/faq/pf/pools.html#incoming>

Load Balancing

<https://flylib.com/books/en/2.717.1.247/1/>

## not-so-hwlb ssl offload

Configure an HWLB for SSL offloading

[https://docs.microfocus.com/SM/9.41/Classic/Content/serversetup/tasks/HWLB\\_Configuration\\_for\\_SSL.htm](https://docs.microfocus.com/SM/9.41/Classic/Content/serversetup/tasks/HWLB_Configuration_for_SSL.htm)

Optimized Load Balancing Hardware

<https://kemptechnologies.com/hardware-loadmaster-load-balancer/>

SSL Acceleration & SSL Offload Solutions

<https://kemptechnologies.com/solutions/ssl-acceleration-solutions/>

SSL hardware offloading in physical and virtual Zevenet load balancers

<https://www.zevenet.com/knowledge-base/howtos/ssl-hardware-offloading-in-physical-and-virtual-zevenet-load-balancers/> -> benchmarks at the end

## lb.org

What are the best load balancing methods and algorithms?

<https://www.loadbalancer.org/blog/load-balancing-methods/>

Layer 4 Direct Routing (LVS-DR) and Layer 4 TUN (LVS-TUN) in AWS

<https://www.loadbalancer.org/blog/layer-4-direct-routing-lvs-dr-and-layer-4-tun-lvs-tun-in-aws/>

How should you compare load balancers?

<https://www.loadbalancer.org/blog/so-just-how-should-you-compare-load-balancers/>

## **lb.org features**

Enterprise 1G

<https://www.loadbalancer.org/products/hardware/enterprise-1g/> -> Technical Specifications

Enterprise 100G

<https://www.loadbalancer.org/products/hardware/enterprise-100g/> -> Technical Specifications

## **direct routing**

Layer 4 DR mode - what it is, how it works and why it's awesome

[https://www.youtube.com/watch?v=eqOH\\_LOGaKo](https://www.youtube.com/watch?v=eqOH_LOGaKo)

Server load balance layer 4

<https://docs.fortinet.com/document/fortiadc/5.4.1/server-load-balance-layer-4-deployment-guide/222941/server-load-balance-layer-4>

Virtual Server via Direct Routing

[https://keepalived.readthedocs.io/en/latest/load\\_balancing\\_techniques.html#virtual-server-via-direct-routing](https://keepalived.readthedocs.io/en/latest/load_balancing_techniques.html#virtual-server-via-direct-routing)

### 3.2. LOAD BALANCER USING DIRECT ROUTING

[https://access.redhat.com/documentation/en-us/red\\_hat\\_enterprise\\_linux/7/html/load\\_balancer\\_administration/s1-lvs-direct-vsa](https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/load_balancer_administration/s1-lvs-direct-vsa)

## **dnat vs. fullnat**

Example: full NAT

[https://help.fortinet.com/fadc/4-8-0/olh/Content/FortiADC/handbook/vs\\_nat\\_source\\_pool.htm#server-load-balancing\\_3762651691\\_1262166](https://help.fortinet.com/fadc/4-8-0/olh/Content/FortiADC/handbook/vs_nat_source_pool.htm#server-load-balancing_3762651691_1262166)

## **l7**

Advantages/Benefits of layer 7 load balancing

<https://www.crybit.com/benefits-of-layer-7-load-balancing/>

L4 vs L7 Load Balancing

<https://levelup.gitconnected.com/l4-vs-l7-load-balancing-d2012e271f56>

Load Balancing Layer 4 and Layer 7

<https://freeloadbalancer.com/load-balancing-layer-4-and-layer-7/>

## **nginx plus**

What Is an SSL Load Balancer?

<https://www.nginx.com/resources/glossary/ssl-load-balancer/>

What Is Layer 4 Load Balancing?

<https://www.nginx.com/resources/glossary/layer-4-load-balancing/>

What Is Layer 7 Load Balancing?

<https://www.nginx.com/resources/glossary/layer-7-load-balancing/>

HTTP Keepalive Connections and Web Performance

<https://www.nginx.com/blog/http-keepalives-and-web-performance/> -> against internal nodes

---

## **scalability**

Scalability

<https://en.wikipedia.org/wiki/Scalability>

FR - Extensibilité

<https://fr.wikipedia.org/wiki/Scalability>

RU - Масштабируемость - Scalability

<https://ru.wikipedia.org/wiki/%D0%9C%D0%B0%D1%81%D1%88%D1%82%D0%B0%D0%B1%D0%B8%D1%80%D1%83%D0%B5%D0%BC%D0%BE%D1%81%D1%82%D1%8C>

ANTI-DDOS PROTECTION

<https://documentation.online.net/en/dedicated-server/network/anti-ddos-protection>

DDOS ARBOR PROTECTION

<https://www.online.net/en/dedicated-server/ddos-arbor>

---

## **squid**

Squid

<https://lists.openinfosecfoundation.org/pipermail/oisf-users/2018-November/016311.html>

On the third side

<http://ingvar.blog.redpill-linpro.com/2010/05/26/accelerating-the-internet-or-actually-squid-with-varnish/>

## **varnish**

Varnish (software)

[https://en.wikipedia.org/wiki/Varnish\\_\(software\)](https://en.wikipedia.org/wiki/Varnish_(software))

Varnish Software

<https://github.com/varnish>

Varnish Cache

<https://github.com/varnishcache/varnish-cache>

The Varnish Tutorial

<https://varnish-cache.org/docs/6.4/tutorial/>

Varnish Cache vs. NGINX Cache: Performance Comparison

<https://blog.resellerclub.com/varnish-cache-vs-nginx-cache-performance-comparison/>

Comparing Varnish Cache and Nginx Caching

<https://www.section.io/blog/varnish-cache-versus-nginx/>

Varnish Cache: How It Works and How to Use It on Your WordPress Site

<https://wp-rocket.me/blog/varnish-http-cache-server/>

## **caddy (go)**

Caddy (web server)

[https://en.wikipedia.org/wiki/Caddy\\_\(web\\_server\)](https://en.wikipedia.org/wiki/Caddy_(web_server))

## **envoy**

Envoy Proxy in 2019: Security, Caching, Wasm, HTTP/3, and more

<https://blog.getambassador.io/envoy-proxy-in-2019-security-caching-wasm-http-3-and-more-e5ba82da0197>

generic forward proxy on Kubernetes

<https://github.com/vadimeisenbergibm/envoy-generic-forward-proxy>

How to configure Envoy as forward proxy to intercept all Egress traffic

<https://stackoverflow.com/questions/54816447/how-to-configure-envoy-as-forward-proxy-to-intercept-all-egress-traffic> <https://groups.google.com/forum/#!topic/envoy-dev/nmPwnSid9UA>

HTTP dynamic forward proxy

[https://www.envoyproxy.io/docs/envoy/latest/intro/arch\\_overview/http/http\\_proxy](https://www.envoyproxy.io/docs/envoy/latest/intro/arch_overview/http/http_proxy)

Benchmarking Envoy Proxy, HAProxy, and NGINX Performance on Kubernetes

<https://www.getambassador.io/resources/envoyproxy-performance-on-k8s/>

## **others**

Polipo

<https://en.wikipedia.org/wiki/Polipo>

Polipo is no longer maintained

<https://www.irif.fr/~jch/software/polipo/>

WWWOFFLE

<https://en.wikipedia.org/wiki/WWWOFFLE>

---

## **haproxy**

HAProxy Configuration Manual

<https://www.haproxy.org/download/1.5/doc/configuration.txt>

### **haproxy forward**

Setup HTTPs Forward Proxy with HAProxy

<https://stackoverflow.com/questions/49433417/setup-https-forward-proxy-with-haproxy>

Using HAProxy for transparent forwarding and selective redirection

<https://serverfault.com/questions/477642/using-haproxy-for-transparent-forwarding-and-selective-redirection>

Enable or disable plain HTTP proxy mode

[https://cbonte.github.io/haproxy-dconv/configuration-1.5.html#4.2-option%20http\\_proxy](https://cbonte.github.io/haproxy-dconv/configuration-1.5.html#4.2-option%20http_proxy)

Distributed forward proxy servers

<https://sakthipriyan.com/2015/07/20/distributed-forward-proxy-servers.html>

Tricks with forward proxy, HAProxy, Squid and a bit more.

<https://medium.com/faun/tricks-with-forward-proxy-haproxy-squid-and-a-bit-more-608096db93c8>

Setup HTTPs Forward Proxy with HAProxy

<https://stackoverflow.com/questions/49433417/setup-https-forward-proxy-with-haproxy>

### **haproxy caching**

how to cache contents in HAProxy [closed] <https://serverfault.com/questions/780150/how-to-cache-contents-in-haproxy/780155> -> no true caching

HAproxy and caching

<https://forum.netgate.com/topic/137004/haproxy-and-caching> -> no true caching

## **nuster**

nuster

<https://github.com/jiangwenyuan/nuster>

An introduction to proxy cache server — nuster

<https://medium.com/@NusterCache/an-introduction-to-proxy-cache-server-nuster-aaa666265053>

An introduction to web cache proxy server - nuster

<https://www.findbestopensource.com/article-detail/nuster-web-cache-proxy-server>

## **ats**

Apache Traffic Server

[https://en.wikipedia.org/wiki/Apache\\_Traffic\\_Server](https://en.wikipedia.org/wiki/Apache_Traffic_Server)

Apache Traffic Server

<https://trafficserver.apache.org/>

---

## proxies

Proxy server

[https://en.wikipedia.org/wiki/Proxy\\_server](https://en.wikipedia.org/wiki/Proxy_server)

Proxies — An in-depth intro

<https://medium.com/consonance/proxies-an-in-depth-intro-4bb569326a34>

Web cache

[https://en.wikipedia.org/wiki/Web\\_cache](https://en.wikipedia.org/wiki/Web_cache)

Web accelerator

[https://en.wikipedia.org/wiki/Web\\_accelerator](https://en.wikipedia.org/wiki/Web_accelerator)

Internet Cache Protocol

[https://en.wikipedia.org/wiki/Internet\\_Cache\\_Protocol](https://en.wikipedia.org/wiki/Internet_Cache_Protocol)

## products

Category:Forward proxy

[https://en.wikipedia.org/wiki/Category:Forward\\_proxy](https://en.wikipedia.org/wiki/Category:Forward_proxy)

Category:Reverse proxy

[https://en.wikipedia.org/wiki/Category:Reverse\\_proxy](https://en.wikipedia.org/wiki/Category:Reverse_proxy)

Category:Free proxy servers

[https://en.wikipedia.org/wiki/Category:Free\\_proxy\\_servers](https://en.wikipedia.org/wiki/Category:Free_proxy_servers)

## caching only?

Memcrashed: Installing Memcached and Securing Against the Memcached Vulnerability

<https://www.knownhost.com/wiki/developmental/memcrashed-what-is-it-memcache>

Memcached » Memcached : Security Vulnerabilities

[https://www.cvedetails.com/vulnerability-list/vendor\\_id-12993/product\\_id-26610/Memcached-Memcached.html](https://www.cvedetails.com/vulnerability-list/vendor_id-12993/product_id-26610/Memcached-Memcached.html)

## acceptance & benchmarks

Benchmarking 5 Popular Load Balancers: Nginx, HAProxy, Envoy, Traefik, and ALB

<https://www.loggly.com/blog/benchmarking-5-popular-load-balancers-nginx-haproxy-envoy-traefik-and-alb/>

HTTP load generator, ApacheBench (ab) replacement, formerly known as rakyll/boom

<https://github.com/rakyll/hey>

Measuring Proxy Performance with the Wisconsin Proxy Benchmark

<http://pages.cs.wisc.edu/~cao/papers/cao-wpb/index.html> <http://pages.cs.wisc.edu/~jussara/papers/98cnisdn.pdf>

Proxy Benchmark

<https://github.com/dtjohnson/proxy-benchmark> <https://dtjohnson.github.io/proxy-benchmark/>

---

## tutorials

ATS - Forward Proxy

<https://docs.trafficserver.apache.org/en/latest/admin-guide/configuration/transparent-forward-proxying.en.html>

Install Envoy on Debian

<https://www.getenvoy.io/install/envoy/debian/>

---

## **ssl termination proxy**

What is SSL Termination?

<https://www.f5.com/services/resources/glossary/ssl-termination>

What Is SSL Offloading? How Does SSL Offloading Work?

<https://www.ssl2buy.com/wiki/ssl-offloading>

TLS termination proxy

[https://en.wikipedia.org/wiki/TLS\\_termination\\_proxy](https://en.wikipedia.org/wiki/TLS_termination_proxy)