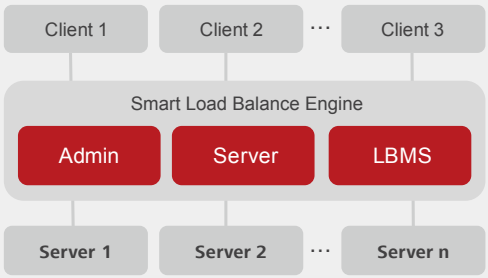
HUAWEI L2800 Load Balancer

Overview

IT networks transmit applications and services every second. Continuous service development requires that you upgrade your infrastructure to provide faster computing capabilities and higher bandwidth. However, frequent upgrades result in increasingly complex networking and higher costs

Based on existing devices, the HUAWEI L2800 load balancer (LB) provides an efficient and transparent method for enhancing network flexibility and availability. The L2800 integrates with the carrier-class Huawei Smart LB (SLB) Engine and provides eight GE and two 10GE FC ports to form a smart, large-capacity local or global load scheduling network between application services and clients. The load balance management system (LBMS) provides functions such as adding servers and outputting server statistics and analysis to avoid traffic jams on the network. The High Availability Cluster Server (HACS) improves service reliability, meets requirements for service continuity, and provides a smooth user experience 24/7.

Software Platform



Server:provides the load balancing function.

Admin:configures, manages, collects statistics, and queries the status of servers.

LBMS: allows you to maintain the L2800 on the LBMS and web service platform.

Software Platform Feature	Specifications			
Software architecture	Smart Load Balance Engine(Ver:ONIPV300R001C05)			
Load balancing	Multiple scheduling algorithms		Layer 4 to layer 7 load balancing	
	NAT/DR/HOST forwarding		Global load balancing	
	TCP multiplexing		Smart overload control	
	Sticky session		SSL	
Availability	Full health check		Resource pool backup policies	
Reliability	HACS		OSPF transparent DR	
Configuration management	CLI/GUI in Chinese or English			
Security mechanism	Active security hardening/Web service security mechanism (allows access with IP addresses only)			
Key performance	Number of connections per second in layer 4	90,000 cps	Number of sessions per second in layer 7	10,000 cps
	Maximum number of concurrent connections	9M cps	Throughput	> 10 Gbit/s
	Concurrent connections over SSL	2M cps	Number of processed connections over SSL	3,500 TPS

Highlights

- Simple installation and maintenance: The L2800 provides pre-configuration templates to simplify configuration while the LBMS centrally manages cluster status. Untrained personnel can easily maintain the L2800.
- Large-capacity load balancing:The L2800 incorporates eight GE and two 10GE ports, supports large-capacity single-point access, and provides large-scale scalable networking capabilities. These features fully meet capacity requirements for service expansion and guarantee consistently outstanding performance.
- Smart application delivery:The L2800 schedules loads based on the content of the application layer and server load status, and provides optimization solutions for caching, compression, and acceleration. These functions reduce network access latency and resolve bandwidth bottlenecks.
- Highly reliable operating: The L2800 supports transparent disaster recovery (DR) switchovers to ensure reliable service operations. The HACS provides stable and reliable services 24/7, fully meeting service continuity requirements.
- Integrated security protection: The L2800 supports enhanced security features that integrate with the security protection system based on the web service security mechanism, which in turn reduces costs and protects user services.
- Comprehensive development interfaces: The L2800 SLB Engine provides comprehensive service expansion interfaces and network management interfaces for secondary development routing and user-defined traffic control, fully satisfying customization requirements.

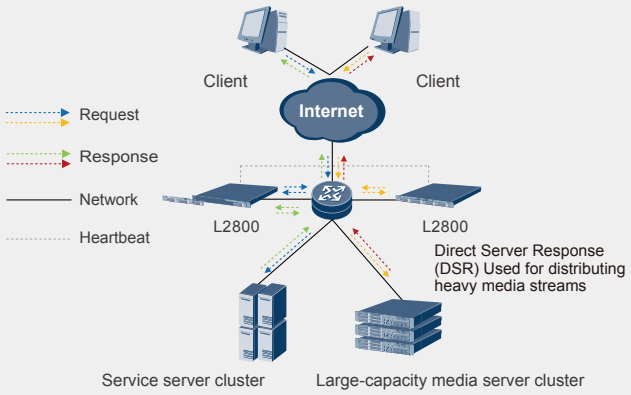
Hardware Platform

Port Type	Standard Configuration
Physical network port	8 x GE Base-T + 2 x 10GE Fiber
I/O port	One FE management port One RS-232 serial port One VGA port Three USB 2.0 ports
Certification	CCC, CE, FCC, IC, VCCI, and C-Tick

Environmental Specifications	Description
Dimensions (H x W x D)	43.6 mm (1U) x 447 mm x 740 mm (1.72 in. x 17.60 in. x 29.13 in.)
Rated power	460W
Weight for full configuration	19.6kg
Rated input voltage	AC module: 100 V AC to 240 V AC DC module: -48 V DC to -60 V DC Note: The AC module supports high voltage DC. The voltage range is 180 V DC to 288 V DC.
Temperature	Operating temperature: 10°C to 35°C (50°F to 95°F)
Humidity	Operating humidity: 8% RH–85% RH (non-condensing)

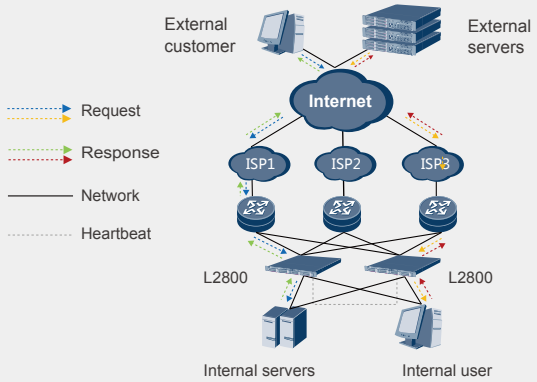
Application Scenario

Server load balancing



The L2800 provides unified access, scheduling, and management functions for internal application server clusters. It supports multiple protocols such as HTTP, HTTPS, FTP, RADIUS, and Diameter to provide load balancing on rear end application servers for various services.

Link load balancing



An enterprise generally has multiple operator links that are not evenly used; interrupting any link may affect information exchange. The L2800 dynamically adjusts link traffic based on bandwidth, loads, and the latency of each link, enabling customers to fully use the bandwidth of multiple links and increase the availability of the whole network.

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