



DATASHEET

Enterprise Hardware Datasheet

Keeping your business flowing

Ensure zero downtime with Flexible, reliable and high performing Enterprise hardware

Loadbalancer.org's Enterprise hardware range ensures your critical applications are never interrupted, with solutions that are simple, unbreakable, and designed around customer needs.

Quick to deploy and simple to manage, Enterprise hardware delivers cost-effective, scalable application delivery in the most challenging network environments, complete with industry-leading, 24/7 consultative support.

The Loadbalancer.org advantage



Fully featured – at no extra cost

The Enterprise range offers scalable, high performing load balancing solutions for all types of applications and networking environments. A pair of appliances delivers High Availability (HA) with health checks and instant failover to remove single points of failure for mission critical systems – while premium features such as Global Server Load Balancing (GSLB), Web Application Firewall (WAF) and unlimited SSL certificates are included as standard.



Easy to deploy, simple to manage

Our products are sophisticated, not complicated. Thanks to our world-class documentation and deployment guides, and intuitive web user interface (WUI), it's simple to set up and configure your hardware, before securely monitoring your infrastructure and traffic while enjoying hassle-free maintenance of your servers and applications. Try our fully-featured software for 30 days, along with consultancy and 24/7 support, absolutely free.



Unbeatable flexibility

Whatever connectivity your network infrastructure requires – we have a compatible Enterprise hardware product, and we enable you to move your license seamlessly between hardware, virtual and cloud platforms at no additional cost. We also provide bespoke options to address specific needs. No artificial end of life limitations, coupled with support for legacy products and our fair usage throughput policy ensures the best possible return on your investment.



Tier-less, consultative approach to support

As well as security/feature updates, and bug fixes, consultative support means our experienced technical engineers are involved with a lot more than just load balancer issues – they become extended members of your own team, and you're not limited to simply asking us about our product. We've been at the heart of thousands of deployments across a wide variety of industries, all over the world, and want you to be able to tap into that knowledge.

Features

Standard Features

- Server Load Balancing (SLB) for any TCP or UDP based protocol
- SSL Acceleration/Offload
- Layer 7 Content Switching
- No bandwidth, performance or feature limitations
- High performance Direct Routing (N-Path), TUN, NAT and SNAT
- Schedulers: Round Robin, Least Connection, Weighted Least Connection, Weighted Round Robin
- Dynamic Schedulers: Windows and Linux feedback agents, Custom HTTP feedback option
- Load balance almost ANY protocol i.e. HTTP, HTTPS, SMTP, POP3, IMAP, Terminal Server, etc.
- Support for Direct Server Return (DSR) configurations
- Configurable S-NAT support
- Link aggregation (802.3ad)
- VLAN Tagging (802.1Q)
- GSLB

SSL

- PCI-ready SSL Implementation
- Unlimited support for SSL Certificates
- Support for Third Party Certificates
- Automated SSL Certificate Chaining
- SSL Certificate Signing Request (CSR) Generation
- PFX upload and conversion
- Proxy protocol support

L4/L7 sticky persistence

- Connection persistence based on
- Source IP address
- SSL Session ID
- Passive Cookie
- Active Cookie (Insert)
- RDP Cookie/Session Broker
- X-forwarded for header (better than Super HTTPS)
- Port following (Persistence on multiple combined ports)
- Multiple fallback options i.e. use source IP if no cookie found

Security functionality

- Fully integrated WAF (Web Application Firewall)
- Reverse proxy
- Persistent White/Black List (Access Control List system)
- Firewall filtering (full iptables scripting support)
- Firewall lock down wizard
- DDOS mitigation both at layer 4 and 7
- Virtual patching
- HTTP and SYN Flood protection
- Block SQL Injection Attacks
- Prevent Cross Site Scripting (XSS)
- OWASP top 10 protection
- FIPS 140-2 Compliant
- PCI DSS Ready

Health checking and high availability

- Application health checking for DNS, FTP, HTTP, HTTPS, IMAP, NNTP and many more
- ICMP health checking of server farm machines
- Complex manually scripted health checks
- Automatic reconfiguration for defective real server machines
- Automatically remove a failed server from the load balancing pool
- Automatic replication of static and dynamic configuration from master to slave load balancer
- Stateful Failover (persistence table replication)
- One click secure clustered pair configuration

Scheduling and balancing methods

- Round Robin
- Weighted Round Robin
- Least Connection
- Weighted Least Connection
- Agent-based Adaptive (Windows and Linux Agents)
- Layer 7 Content Switching
- Destination Hash for transparent proxy

Administration

- Secure, SSH, HTTP and HTTPS for remote access administration
- Fully configurable using Web User Interface (WUI)
- Easy start configuration and maintenance wizards
- WebUI-based Help Assistant
- Virtual Service Configurations can be edited and tuned on-the-fly
- Real time performance and availability displays
- Optionally configure console port for local administration
- Remotely scriptable Command Line Interface (LBCLI) Option
- SOAP interface to the LBCLI API
- Local and Remote syslogd support
- Selective restore of physical and Virtual Service data
- Support for Connection Draining or halting with or without persistence
- Software and Security updates available on and off-line
- WebUI Log Reporting with Tabbed Browser Support
- SNMP support for performance metrics
- Full root access to with a multitude of diagnostic tools tcpdump etc.

Specifications

	Enterprise 1G	Enterprise 10G
Support & Warranty		
Warranty length	3 years	3 years
Warranty type	Return to base	Next business day onsite direct from Dell
2, 4, or 8 hour onsite response	✗	Optional
Performance		
Maximum real servers	Unlimited	Unlimited
Maximum throughput	4Gbps	18Gbps
Maximum HTTP RPS	252,684	1,234,455
Maximum connections	15,600,000	31,200,000
Layer 7 concurrent connections	300,000	600,000
SSL TPS (1K keys)	7,671	15,883
SSL TPS (2K keys)	3,310	6,111
SSL TPS ECC (3K* keys)	10,306	19,584
Hardware		
CPU	Quad Core Intel® Xeon®	Hexa-core Intel® Xeon®
Memory (RAM Size)	8Gb	16Gb
Storage	240GB SSD	480GB SSD
Standard network adapters	4 x 1GbE	2 x 1GbE + 2 x SFP+
Alternative network adapters	✗	2 x 10GBASE-T Copper
VGA port	✓	✓
Console ports (serial)	✓	✓
System Management	IPMI	Optional
Redundant PSU	✗	✓
Enterprise remote console	✗	Optional
DC power option	✓	✗
Rack size	1U	1U
Dimensions (DxWxH)	610 x 540 x 170 mm (24.01 x 21.25 x 6.69 in)	480 x 610 x 40 mm (18.89 x 24.01 x 1.57 in)
Weight	17.6lbs	30lbs
Storage temperature	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)
Operating temperature	50°F to 95°F (10°C to 35°C)	50°F to 95°F (10°C to 35°C)
Storage humidity	5% to 95% RH with 91°F (33°C)	5% to 95% RH with 91°F (33°C)
Operating relative humidity	5% to 95% RH with 91°F (33°C)	5% to 95% RH with 91°F (33°C)
Max altitude in operational mode	10,000 ft (3048m)	10,000 ft (3048m)
Input voltage and frequency ranges	100-240 V AC, 50-60Hz	100-240 V AC, 50-60Hz
Max power supply (W)	Single	Dual, 550
Power consumption (max/idle)	90/45W	76/46W
Heat output (BTU)	939	1039
Acoustic noise (dB)	3.6	4.6

Specifications

	Enterprise 25G	Enterprise 40G
Support & Warranty		
Warranty length	3 years	3 years
Warranty type	Next business day onsite direct from Dell	Next business day onsite direct from Dell
2, 4, or 8 hour onsite response	Optional	Optional
Performance		
Maximum real servers	Unlimited	Unlimited
Maximum throughput	48Gbps	48Gbps
Maximum HTTP RPS	1,234,455	1,234,455
Maximum connections	31,200,000	31,200,000
Layer 7 concurrent connections	600,000	600,000
SSL TPS (1K Keys)	15,883	15,883
SSL TPS (2K Keys)	6,111	6,111
SSL TPS ECC (3K* Keys)	19,584	19,584
Hardware		
CPU	Hexa-core Intel® Xeon®	Hexa-core Intel® Xeon®
Memory (RAM Size)	16Gb	16Gb
Storage	480GB SSD	480GB SSD
Standard network adapters	2 x 1GbE + 2 x SFP28 Fully backward compatible with 10GbE	2 x 1GbE + 2 x QSFP+
Additional network adapters	✘	✘
VGA port	✓	✓
Console ports (serial)	✓	✓
System Management	Optional	Optional
Redundant PSU	✓	✓
Enterprise remote console	Optional	Optional
DC power option	✘	✘
Rack size	1U	1U
Dimensions (DxWxH)	480 x 610 x 40 mm (18.89 x 24.01 x 1.57 in)	480 x 610 x 40 mm (18.89 x 24.01 x 1.57 in)
Weight	30lbs	30lbs
Storage temperature	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)
Operating temperature	50°F to 95°F (10°C to 35°C)	50°F to 95°F (10°C to 35°C)
Storage humidity	5% to 95% RH with 91°F (33°C)	5% to 95% RH with 91°F (33°C)
Operating relative humidity	5% to 95% RH with 91°F (33°C)	5% to 95% RH with 91°F (33°C)
Max altitude in operational mode	10,000 ft (3048m)	10,000 ft (3048m)
Input voltage and frequency ranges	100-240 V AC, 50-60Hz	100-240 V AC, 50-60Hz
Max power supply (W)	Dual, 550	Dual, 550
Power consumption (max/idle)	76/46W	76/46W
Heat output (BTU)	1039	1039
Acoustic noise (dB)	3.6	3.6

Specifications

	Enterprise 50G	Enterprise 100G
Support & Warranty		
Warranty length	3 years	3 years
Warranty type	Next business day onsite direct from Dell	Next business day onsite direct from Dell
2, 4, or 8 hour onsite response	Optional	Optional
Performance		
Maximum real servers	Unlimited	Unlimited
Maximum throughput	48Gbps	88Gbps
Maximum HTTP RPS	1,234,455	2,474,128
Maximum connections	31,200,000	62,400,000
Layer 7 concurrent connections	600,000	1,200,000
SSL TPS (1K Keys)	15,883	22,374
SSL TPS (2K Keys)	6,111	9,654
SSL TPS ECC (3K* Keys)	19,584	30,059
Hardware		
CPU	Hexa-core Intel® Xeon®	Intel® Xeon® Gold
Memory (RAM Size)	16Gb	32Gb
Storage	480GB SSD	480GB SSD
Standard network adapters	2 x 1GbE + 2 x QSFP28	2 x 1GbE + 2 x QSFP28
Alternative network adapters	✗	4 x SFP28 or 4 x QSFP+
VGA port	✓	✓
Console ports (serial)	✓	✓
System Management	Optional	Optional
Redundant PSU	✓	✓
Enterprise remote console	Optional	Optional
DC power option	✗	✗
Rack size	1U	1U
Dimensions (DxWxH)	480 x 610 x 40 mm (18.89 x 24.01 x 1.57 in)	714.6 x 434 x 42.8 mm (28.13 x 17.08 x 1.68 in)
Weight	30lbs	39lbs
Storage temperature	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)
Operating temperature	50°F to 95°F (10°C to 35°C)	50°F to 95°F (10°C to 35°C)
Storage humidity	5% to 95% RH with 91°F (33°C)	5% to 95% RH with 91°F (33°C)
Operating relative humidity	5% to 95% RH with 91°F (33°C)	10% to 80% RH with 84.2°F (29°C)
Max altitude in operational mode	10,000 ft (3048m)	10,000 ft (3048m)
Input voltage and frequency ranges	100-240 V AC, 50-60Hz	100-240 V AC, 50-60Hz
Max power supply (W)	Dual, 550	Dual, 550
Power consumption (max/idle)	76/46W	172/114W
Heat output (BTU)	1039	2559
Acoustic noise (dB)	3.6	4.6

About Loadbalancer.org

Loadbalancer.org's mission is to ensure that its clients' businesses are never interrupted. The load balancer experts ask the right questions to get to the heart of what matters, bringing a depth of understanding to each deployment. Experience enables Loadbalancer.org engineers to design less complex, unbreakable solutions - and to provide exceptional personalised support.



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