



Carrier Grade Load Balancer

PERFECT DISTRIBUTION

Load balancing algorithm takes into account the size and capabilities as well as availability of cluster nodes to ensure optimal distribution.

FAST FAILOVER

Observes every node in the cluster and guarantees that changes are reflected instantaneously in the traffic distribution without interfering with current connections.

EXCELLENT INTEGRATION

Communication between CacheMARAs, DnsMARA and TmcMARA ensures perfect interoperability between these products.

EASY CLUSTERING

Multiple TmcMARAs can easily be combined to an Active/Active cluster to implement large scenarios even up to multiple 100 Gbps of bandwidth.

CENTRAL MONITORING AND REPORTING

TmcMARA allows to centrally access all monitoring and reporting data from all DnsMARA and CacheMARA nodes in the cluster. Additional combined statistics and reports available.



SINGLE UNIT XXL

- ✓ 60 Gbps throughput
- ✓ Active/Active clustering for higher throughput demands
- ✓ Up to 24 x 10 Gbps SFP+
- ✓ Power supply redundancy
- ✓ HW remote management

Innovative Load Balancing Solution

- Layer 3 & layer 4 load balancing
- Fine-grained control over load balancing
- Optimized HTTP, DNS and P2P load balancing
- Optimized load balancing for CacheMARA and DnsMARA clusters
- Optimized content distribution in CacheMARA clusters
- Semi-automatic cluster configuration
- Easy integration of new cache-cluster nodes
- Comprehensive access control rules
- Extensive health checking system
- Seamless failover
- High availability with sub-second failover
- Flexible deployment
- Support for Cisco WCCP v2
- Advanced Routing including OSPF
- Active/Active clustering of the load balancer to handle larger scenarios
- Detailed reporting
- Central monitoring and reporting of all nodes in the CacheMARA and DnsMARA cluster
- Live monitoring
- High performance embedded stateful firewall
- DoS protection
- Global IP reputation and Botnet database
- Connection Rate Limiting/Connection Limiting

TmcMARA is the solution for deploying transparent caching devices, DNS servers or any other service that requires load balancing to multiple servers.

Transparent caching is used to save costs on upstream bandwidth and to accelerate Internet browsing.

DNS Best practice advises to install multiple DNS servers with different roles for increased redundancy, resilience, performance and security.

In simple scenarios a router or switch is often used to perform policy-based routing or Cisco WCCP in order to mimic a simple form of load balancing to multiple servers. But for many scenarios and reasons this is not a good approach.

The TmcMARA offers a much nicer integration of transparent caching devices, DNS servers and other services that are deployed with multiple servers.

The benefits are mainly the much easier management, better load balancing, better availability, better failover and nicer integration.

TmcMARA is a perfect fit for deploying a CacheMARA cluster or multiple DnsMARA servers, as it offers special load balancing algorithms and a nicer integration for those products.

TmcMARA offers a better performance and a higher 10 Gbps port density at half the price of competing products on the market.



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CARRIER GRADE HARDWARE

MARA Systems only provides latest hardware generation and IT findings to deliver a secure, robust and easily scaling load balancing solution.

OPTIMAL PERFORMANCE

Highly integrated and application specific appliance hardware from one source for highest performance.

RELIABLE PLATFORM

Exceptionally optimized and hardened Linux platform, tailored for high availability, security and performance needs. System booting from read-only, compressed image. Purpose-built hardware.

COST EFFECTIVE

Robust and cost-effective. Save costs and time spent on managing load balancing infrastructure. Special deployment methods to reduce overall costs. Very competitive pricing

SERVICES / SUPPORT

- Dedicated technical support
- Expert consulting
- Installation & configuration
- Maintenance updates
- Firmware upgrades
- Hardware warranty
- Product manuals & FAQs

Product & Technical Specifications

Q1 2018	L-2U-0800	XL-2U-0800	XXL-2U-0800
Throughput	20 Gbps	40 Gbps	60 Gbps
HTTP to clients in DR Scenario	18 Gbps	36 Gbps	54 Gbps
RAM	48 GB ECC	64 GB ECC	96 GB ECC
SSD	120 GB	120 GB	120 GB
Network ports default	4 x 10 Gbps SFP+ 2 x 1 Gbps RJ-45	8 x 10 Gbps SFP+ 2 x 1 Gbps RJ-45	12 x 10 Gbps SFP+ 2 x 1 Gbps RJ-45
Network ports max.	6 x 10 Gbps SFP+	12 x 10 Gbps SFP+	24 x 10 Gbps SFP+
Redundant power supply	✓	✓	✓
Hardware remote management.	✓	✓	✓
Disk hot swap	✓	✓	✓
Form factor rackmount	2U	2U	2U
Typical power consumption	200 Watt	250 Watt	300 Watt

Large Deployment Example

TmcMARA is a very flexible solution. It can be deployed in many different scenarios using different approaches. Inband and out-of-band deployments are supported. Traffic can be forwarded to TmcMARA using policy based routing, Cisco WCCP or OSPF. The following example shows a large deployment using multiple TmcMARAs to load balance traffic to a cluster of transparent CacheMARA caching devices.

