



Carrier Grade Caching Solution

TRANSPARENT CACHING FOR ISPS

HIGH PERFORMANCE
MULTI GIGABIT
FULLY TRANSPARENT

BANDWIDTH SAVINGS

Highest bandwidth savings (BHR – Byte Hit Ratio) and bandwidth gain on the market. Supporting the most different content classes and including special optimizations for all popular services and sites.

BROWSING ACCELERATION

Small objects cached and served from ultra high performance Solid State Disks (SSDs). Subscriber satisfaction improved because Internet browsing accelerated.

CDN CACHING

Unique caching mechanism, highly accurate for arbitrary caching of videos and large rich media files from Content Delivery Networks (CDNs).

COST EFFECTIVE

Reduce costs, increase number of subscribers and avoid costly bandwidth upgrades at value-added prices.



Single Node Cluster XXL

- ✓ 8 Gbps Throughput
- ✓ 4,4 Gbps HTTP to clients
- ✓ 4 Gbps from Disks
- ✓ 72 TB HDD Storage
- ✓ 2,4 TB SSD Storage
- ✓ 256 ECC Memory
- ✓ 2U / 4U Rackmount Edition

Appliance Features

- HTTP and FTP support, optional HTTPS
- On-device network test tools
- Peer-to-Peer (P2P) / BitTorrent caching
- Encrypted P2P connections
- IPv6 support / IPv6 ready
- High-Availability and redundancy
- Proprietary caching technology
- Video-On-Demand caching (Netflix,...)
- Partial object caching (HTTP range requests,...)
- Content Delivery Networks (Akamai, EdgeSuite,...)
 - ✓ De-duplicates content that comes from different CDN hosts
- Caching Static & Dynamic web content:
 - ✓ Antivirus and software updates
 - ✓ Filehoster/Sharehoster/One-Click-Hoster
 - ✓ Games (EA, Playstation, Steam, Xbox,...)
 - ✓ OS updates (Apple, Linux, Microsoft,...)
 - ✓ Videohoster (GoogleVideo, Youtube,...)
- Caching HTTP-based live streaming:
 - ✓ HTTP Live Streaming (HLS)
 - ✓ HTTP Dynamic Streaming (HDS)
 - ✓ HTTP Smooth Streaming (HSS)
- HTTP access control and content filtering (Blacklists, Whitelists, ACLs, Policies, ...)

Operating System & Platform

- Optimized 64 bit Linux Kernel
- Unified cache cluster management
- Dedicated video caching platform
- Multiple terabytes of storage capacity
- Ultra high performance SSDs for low-latency
- Drive monitoring and management
- Automatic Fail-Over function
- Small and large object file caching
- Disk hot-swap support

Flexible Deployment

- Transparent | Non-Transparent
- Reverse proxy
- Detailed logging facilities
- Comprehensive access control rules
- Dynamic ISP content filtering
- Advanced cache hierarchies
- Bridge Mode | Dynamic routing OSPF
- WCCP Layer 2
- Policy Based Routing (PBR)
- L4 / L7 load balancers, including TmcMARA balancer
- Multiple router connectivity
- 1 / 10 / 25 / 40 Gbps interfaces
- Central cluster monitoring and reporting
- Scalable cache cluster with shared storage

Management & Reporting

- Innovative and intuitive Web GUI (Multilingual)
- Command line interface via serial console & ssh
- Appliance status and live monitoring
- Daily, weekly or monthly executive reports (PDF)
- Real-time and historical statistics by day, week, ...:
 - ✓ System resources, network traffic, HTTP caching performance,...
- Comprehensive usage reports:
 - ✓ Top 1000 Sites, Top 1000 Users
- Simple backup and restore capability
- Remote logging servers support (remote syslog)
- Embedded stateful firewall
- SNMP support with configurable alerts

Optional Modules

- TCP Optimizations for HTTP and HTTPS
- HTTPS access control and content filtering
- Category based content filtering for HTTP and HTTPS
- Deep packet inspection
- Traffic Visibility



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CARRIER GRADE HARDWARE

MARA Systems only provides latest hardware generation and IT findings to deliver the most secure and robust transparent caching solution on the market.

EASY CLUSTERING

Multiple CacheMARA appliances can easily be clustered to implement larger scenarios even up to multiple 100 Gbps of bandwidth. CacheMARAs in the cluster share available storage so that total caching capacity is increased with every CacheMARA added to the cluster.

RELIABLE PLATFORM

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

PROVEN SOLUTION

CacheMARA is a safe buy with more than 900 installations worldwide.

SERVICES / SUPPORT

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

Product & Technical Specifications

Q1 2018 Models	XL Cluster		XXL Cluster	
	XL-2U-1629	XL-4U-2448	XXL-2U-2443	XXL-4U-3672
Generated from disks all services Mbps	2000	2000	4000	4000
Total Mbps HTTP to clients	2200	2200	4400	4400
Total Mbps all services	4000	4000	8000	8000
Max concurrent connections	2.5 Million	2.5 Million	5.0 Million	5.0 Million
ECC memory	192 GB	192 GB	256 GB	256 GB
SSD cache size	1200 GB NVMe	1200 GB NVMe	2400 GB NVMe	2400 GB NVMe
HDD cache size	28,8 TB	48 TB	43,2 TB	72 TB
PSU redundancy	yes	yes	yes	yes
Form factor	2U	4U	2U	4U
Typical power consumption	300W	400W	400W	600W

Large Deployment Example

The following example shows a large deployment using multiple TmcMARAs to load balance traffic to a cluster of transparent CacheMARA Cluster XL caching nodes.

