Premium Web Optimization System

JAGUAR7000

ara | ARA Networks

High Performance Web Caching & TCP Optimization Solution

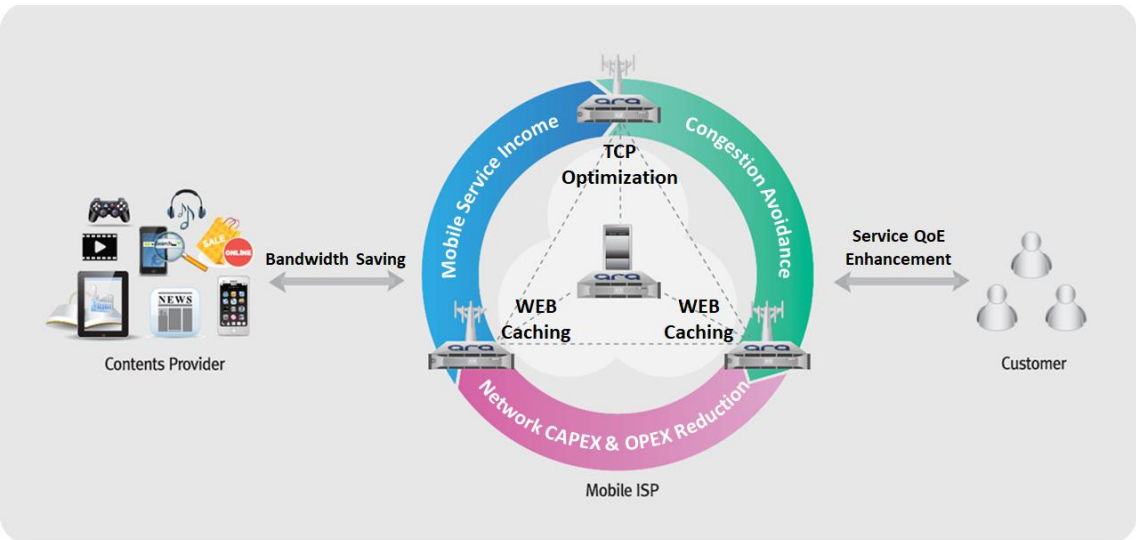
Optimize Your Bandwidth and Enhance QoE

❖ Bandwidth Cost Reduction and QoE Improvement for HTTP Traffic

JAGUAR7000 is the best-performance video/web transparent caching solution. JAGUAR7000 helps service providers to save bandwidth and accelerate the delivery of Web 2.0 content, especially UTT(over-the-top) video. JAGUAR7000 provides built-in tools for web traffic reporting and URL filtering. With JAGUAR7000, Network planners don't have to keep buying expensive bandwidth to meet performance goals. And also, dramatically reduce infrastructure costs and improve QoE(Quality of Experience).

❖ TCP Optimization and QoE Improvement for HTTPS Traffic

Based on the long experience in the internet traffic security and optimization for large national carriers and international internet whole sellers, ARA Networks developed its unique Web Optimization System that addresses all key challenges of TCP Protocol for the large Carriers and Teleco operators to optimize their internet traffic to provide with the best Quality Of Experience for its customers.



❖ Features & Benefits

Improved Subscriber QoE

Faster data transmissions and increased application performance lead to measurably, consistently better subscriber quality of experience. JAGUAR7000 can deliver popular content to users without delay or bottleneck.

Saving Bandwidth and Cost

It is possible to save bandwidth from 40% to 60% by caching video and web content with JAGUAR7000. With JAGUAR7000, ISPs can attract more subscribers without expanding network infrastructure.

The Best Performance with Scalability

AGUAR7000 is the world's best video/web cache with the 10Gbps performance. By deploying in a cache farm, a group of JAGUAR7000 can provide flexibility and scalability with features such as: file-sharing among different sets of storage.

Web Filtering

JAGUAR5000 can control web access and protect users from websites with content that belong to non-business or harmful categories to meet demands of each ISP or corporation.

Enhance Browsing Service

Jaguar7000 web caching and optimization Solution provides reliable, consistent services and application delivery while dramatically improving performance across networks to deliver a better user experience. Users gain faster browsing and quicker access to content, with best quality of service.

TCP Connection Splitting

Jaguar7000 Optimization Solution reduces the time to reach available bandwidth by 'splitting' the latency between the subscriber/ access network and the Internet/transit network and applying techniques to optimize the performance of each 'side' of the connection.

Increase Average Bandwidth Per User

Jaguar7000 platform lets operators adapt in real-time to the variable conditions of the networks, like latency, packet loss, congestion, etc. fully utilizing available bandwidth and accelerating application traffic, which will increase the average bandwidth per user.

Decrease Packet Loss and Packet Retransmission

Jaguar7000 works on a per-packet basis, transparently, it does not need to wait until the Internet side packet loss is resolved, and instead can forward data segments that arrive after the lost packet which will significantly decrease the packet retransmission rate.

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PROW AT THE FOREFRONT

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❖ Main Features

- **Supported Video over HTTP Formats:** FLV, MP4, AVI, MPEG, HTML5.
- **HTTP Live Streaming caching:** Supports Adobe Flash HTTP Streaming, Apple HTTP Live Streaming, MS Silverlight Smooth Streaming.
- **Caching Shared Files** : Megavideo, 4shared, zSHARE, etc.
- **Content-based File Hashing:** Content Key Caching.
- **Distributed Cloud Storage(MSE, Media Storage Extensions):** Large objects can be shared among different sets of video cache storage.

- **Cloud-Based Configuration Synchronization:** Patterns are updated and distributed on cloud for frequently changed patterns from websites.
- **Auto Detection and Bypassing on Asymmetric Sessions :** Asymmetric routing sessions between the client and the server are bypassed after automatic detection .
- **Supported Protocols:** HTTP, HTTPS, FTP, DNS

❖ **TCP optimization pre acknowledging method**

❖ **TCP Packet loss recovery**

❖ **User's TCP timeout tuning**

❖ **Rate limit policy**

❖ **Controlling TCP window**

❖ **Server's connection try counts**

❖ **Server's TCP timeout tuning**

❖ System Specification

Application Model		AF2634
Customer		Large ISP
Maximum Client-Side Throughput	HTTP Traffic Redirection Only	4Gbps
	HTTPS Traffic Redirection Only	6Gbps
	HTTP & HTTPS Traffic Redirection	1.5Gbps HTTP 2.5Gbps HTTPS
Total number of concurrent connections		2 Million
RPS (Request per second)		22K

❖ Hardware Specification

Model	AF2634
Server Model	Dell R730 (2U)
CPU	2 of Intel Xeon E5-2620v3 (2.4GHz), 6 cores or higher
RAM	128GB (8 of 16GB)
HDD	2 of 900GB 2.5" SAS / 1 of 1.8TB 2.5" SAS
Raid Controller	Dell H730p controller
Power supply	1100W, Hot plug, Dual
NIC	1G NIC (Broadcom 5720 QP 1G), 10G NIC (Intel X520 DP 10Gb DA/SFP+ with 2 of GBIC

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