



Openwave® Media Optimizer

Intelligent Media Traffic Optimization

With the explosion of over-the-top and paid online video, mobile network service providers face the challenge of effectively managing the exponential growth in data traffic on their networks. Service providers must find ways to maximize their available network capacity without sacrificing the end-user experience.

Openwave's Media Optimizer adds value to the network with intelligent device- and policy-aware delivery of online video content, reducing costs while increasing effective bandwidth. Its context-aware capability ensures the most efficient use of resources to deliver the best viewing experience with less cost to the service provider.

As part of Openwave's Traffic Mediation Solution, Media Optimizer is integrated with Openwave Smart Policy, enabling service providers to define policies based on subscriber level, time-of-day or volume.

Product Benefits

- Optimizes use of network resources
- Reduces total cost of ownership
- Increases network efficiency
- Improves video viewing experience

Product Details

Media Optimizer consists of the following features:

- **Congestion Aware Optimization*** (CAO) automatically triggers optimization as soon as it detects congestion in the network on an individual cell site basis.
- **Flexible Configuration Profile** enables service providers to configure a different optimization profile for each deployment or scenario based on the cost-benefit analysis applicable for the specific situation.

* Patent Pending

- **Content-Aware Compression (CAC)** optimizes bandwidth consumption by detecting rapid content changes in video frames and applying different compression levels based on motion content in the video.
- **Media Acceleration Unit (MAU)** reduces core network traffic and improves the user experience through faster video delivery. It eliminates the need to perform CPU-intensive transcoding on frequently requested videos, and performs offline optimization of popular videos.
- **Dynamic Updater** provides the capability to quickly react to video format changes by pushing updates via the cloud, minimizing the risk of network disruption.
- **HTTP-Adaptive Streaming Management** allows service providers to manage bandwidth-hungry HTTP-AS traffic so that other applications can access network resources.
- **Just-In-Time Video Delivery** delivers just enough content for smooth playback, eliminating wasted download bandwidth when the user does not watch the entire video.
- **Dynamic Bit Rate Shaping** adjusts the video bit-rate according to real-time network conditions to ensure continuous video playback without any stalls or jitters.
- **Device Aware Optimization** considers a device's capabilities and encodes media content in a bit-rate suited for each device.
- **Optimized Codecs** includes one tuned for speed for real-time transcoding and delivery, and another tuned to produce the best video quality for cached videos during offline optimization.
- **Policy Aware Optimization** ensures that users receive the quality of service they paid for with a configurable optimization level based on the subscriber profile and data plan.

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- **Rich Video Statistics for Analytics** allow service providers to gain insights into video traffic on their networks by recording data such as the number of videos optimized, number of videos served from the cache and average video processing time.
- **Tunable System Parameters** enable service providers to adjust video compression levels (frame rate and/or bit rate) according to the desired quality level.
- **Rich Network Management** provides full support for SNMP v2 stats and traps.
- **Hot Upgrades** allow service providers to upgrade individual blade servers without shutting down the system.
- **User-Friendly System Management** provides an easy-to-use GUI for system management and configuration.

- **Multi-Site Management** supports multi-site deployments that allow service providers to scale their system as mobile video bandwidth grows.

Support for Industry Standards:

- Video codecs: H.264 (B/M/H), H.263, VP8 and, VP6 (decoding only)
- Video formats: Adobe Flash, 3GPP, WebM and MP4
- Audio formats: MP3, AAC and AAC+

System Requirements

Intel x86 Blade Servers with Red Hat Enterprise Linux 5.5

For more information, please contact sales@openwave.com or visit www.openwave.com.

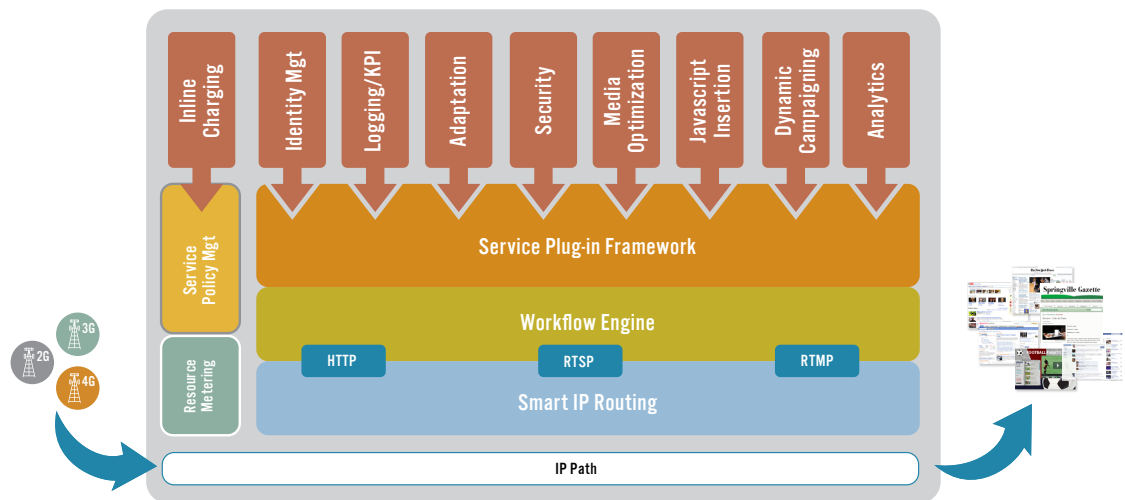


Figure 1: Openwave Mediation Framework.



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