

# Delivering a top class mobile video experience

Allot VideoClass is an application-aware video optimization solution that is fully integrated with Allot Service Gateway. It allows mobile service providers to dramatically improve the quality and efficiency of over-the-top video delivery by optimizing for real-time network conditions and for each mobile connection. This unique dual optimization capability enables the highest quality of experience for video consumers while minimizing the bandwidth required by the video stream.

# **Benefits**

- Reduce bandwidth consumption on expensive RAN and backhaul capacity by 30-50%, and thereby avoid or delay network expansion and capex outlay.
- Reduce operational expenses by reducing "wasted" bandwidth while providing the same perceived quality of experience.
- Ensure a consistently great video experience by preventing stalls and buffering delays that affect customer satisfaction and loyalty.
- Create new revenue opportunities through mobile data service packages designed especially for high-volume video consumers.
- Gain insight on consumer behavior through detailed information on video usage.



# **Feature Highlights**

# **Key Technologies**

Allot VideoClass integrates the most innovative technologies into a harmonious solution for effective and efficient video optimization.

Application-aware Bandwidth Allocation allots just the right amount of bandwidth to each video application, allowing more simultaneous sessions on the available bandwidth.

**Content-aware Bandwidth Reduction** employs human perceptional models to reduce non-essential data.

**Network-aware Adaptation** shapes video delivery to match real-time RF network conditions.

**Client Buffer Management** intelligently paces the video, sending just enough data to enable continuous, uninterrupted playback.

**Network Estimation** continuously monitors each video session to determine whether the subscriber's current conditions are adequate for the content. If not, then reduction and adaptation features are activated to optimize the flow and maximize subscriber Quality of Experience (QoE).

Inline Transrating adapts video content to network conditions in real-time without the expense or scalability concerns of complete transcoding. The VideoClass transrating engine checks video frames and their properties and reduces only the parts of the content that a subscriber would not notice, reducing bandwidth while providing the same perceived quality of experience. Transrating reduces delivery bandwidth only during drops in available bandwidth, dynamically changing to match network conditions.

**Content Adaptation** selects the most appropriate delivery technology based on the original content format and specific device capabilities. This enables dynamic real-time adaptation of content for each subscriber session, even when the original content format doesn't support dynamic adaption (e.g. MP4).

# Flexible Policy Management

Allot VideoClass provides a flexible, rules-based policy manager tool to customize the optimization parameters on a session-by-session basis. Policy rules consist of Policy Attributes that define WHEN to apply the policy rule to a video session and Policy Profiles that define WHAT optimization actions to apply to the video session.

Supported Policy Attributes include URL Server domain, Content Type (e.g., Flash, MP4), Time, Device Type, Subscriber (Class Token from the policy server), and Client IP address.

# **Flexible Deployment Options**

Allot VideoClass can be deployed in the Allot Service Gateway platform as either a standalone inline Layer 2 bump-in-the-wire mode or as a fully integrated service that leverages caching and other services hosted in the platform. This tight integration provides a highly cost-effective and holistic approach to bandwidth management and delivery optimization of OTT video.

#### Traffic Steering and Load Balancing

Allot Service Gateway reduces deployment footprint by steering only relevant video traffic to the optimization engine while leaving non-video traffic untouched. Integrated load balancing also eliminates the need for costly external load balancers.

# **Virtualized Optimization Functions**

Allot VideoClass supports deployment schemes for virtualized network functions. When deployed in the cloud, its video optimization functions leverage the granular traffic detection and steering of Allot Service Gateway, enabling video delivery services that are highly scalable and adaptive to network conditions. Virtualized Allot VideoClass functions may be deployed on standard x86 server or server blades as well as ATCA equipment.

## **Comprehensive Reporting and Analytics**

Detailed records are kept for each video session, allowing the service provider to monitor mobile video traffic and subscriber usage patterns. Analytics reports provide daily and hourly breakdowns of traffic volume, video usage, optimization savings, device types, most popular content sites, and other valuable data. Reporting and analytics data can be exported to a data warehouse or viewed via the online Graphical User Interface.

## **Open Architecture**

Standard interfaces, protocols and APIs facilitate rapid and trouble-free integration in the operator's PCC environment and with third-party network and subscriber services.

# **High Scalability**

Pay-as-you-grow deployment reduces initial capital outlay and allows operators to add services or upgrade capacity at any time.

#### Carrier-grade design

Engineered to AdvancedTCA® standards with N+1 redundancy schemes for deployment in service provider networks.

# (i) About Allot Communications

Allot Communications Ltd. (NASDAQ, TASE: ALLT) is a leading global provider of intelligent broadband solutions that put mobile, fixed and enterprise networks at the center of the digital lifestyle. Allot's DPI-based solutions identify and leverage the business intelligence in data networks, empowering operators to shape digital lifestyle experiences and to capitalize on the network traffic they generate. Allot's unique blend of innovative technology, proven know-how and collaborative approach to industry standards and partnerships enables service providers worldwide to elevate their role in the digital lifestyle ecosystem and to open the door to a wealth of new business opportunities. For more information, please visit www.allot.com

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