

# **KEY BENEFITS**

- Deferred CAPEX: Optimize network investments by maximizing current infrastructure capacity and delaying costly upgrades
- Enhanced QoE: Minimize buffering and improve video quality for subscribers, ensuring high satisfaction across devices and locations
- New Revenue Streams: Unlock revenue potential with premium video plans and differentiated service tiers

## MANAGE VIDEO BANDWIDTH RESOLUTIONS AND DELIVER HIGH-QUALITY EXPERIENCES

Video streaming dominates network traffic, often accounting for over 80% of internet usage globally. This growing demand places immense pressure on network resources, requiring operators to implement smarter, more efficient traffic management strategies to maintain Quality of Experience (QoE) while balancing operational efficiency.

AppLogic Networks' Video Streaming Management (VSM) empowers service providers to optimize bandwidth utilization, improve subscriber experiences, and introduce differentiated service offerings by leveraging advanced analytics and intelligent shaping techniques.

#### **FEATURES, FUNCTIONALITY AND CAPABILITIES**

VSM is an inline solution that uses service provider-set policies to manage the video traffic effectively. Key features include:

- Access-Agnostic Compatibility: Operates seamlessly across mobile, fixed, and satellite networks, ensuring universal deployment flexibility.
- Advanced Application Detection and Classification: Uses AppLogic's traffic classification
  engine and its extensive signature database to identify video streaming, including
  encrypted applications.
- Intelligent Video Shaping: Enforces per-stream bitrate limits dynamically, reducing average bitrates while maintaining video quality, thereby optimizing bandwidth without impacting the user experience.
- Context-Aware Traffic Management: Tailors policy controls to specific contexts, such
  as user, location, device type, service plan, group/tier, and QoE requirements, delivering
  granular and precise management.
- Precise Optimization Strategy: Implements real-time congestion awareness based on subscriber tier, service plan, location, time of day, device type, and other contextual metrics to maximize network efficiency.
- Compliance: Adheres to standards like 3GPP, enabling customizable policies per subscriber, device, and network requirements.
- Comprehensive Video Metadata and QoE Metrics: Provides detailed metadata and video quality metrics, including throughput, latency, and packet loss, coupled with traffic scoring.
- Dynamic Scoring Measurements: Leveraging App QoE technology to calculate video performance metrics, and other Key Quality Indicators (KQIs).
- User-Friendly Dashboards: Intuitive dashboards offer deep visibility into video traffic, policy impacts, and savings achieved, enabling operators to analyze trends and performance at a granular level.
- Intelligent Video Management: Protects other traffic types, such as latency-sensitive gaming and voice services, from being adversely affected by video traffic.
- Device-Specific Resolution Matching: Dynamically aligns video bitrates to the optimal resolution capabilities of specific devices, reducing excess bandwidth usage.

#### **HOW VSM IS PACKAGED**

AppLogic Networks offers three Packages; Analyze, Optimize and Monetize:



VSM is part of the Optimize Package, alongside two other key solutions:

- · Heavy User Management
- · Fair Usage Congestion Management

These solutions collectively provide service providers with the network resource insights needed to optimize the performance and make informed future investment decisions on their network.

#### HOW VSM FUNCTIONS IN APPLOGICS' FUNCTIONAL ARCHITECTURE

VSM can be implemented in any network using AppLogic Networks' solutions, functioning across the following layers:

Value Delivery	Dashboards & Workflows		Advanced Traffic Management		Integration & Automation		
Data Enrichment	Data Orchestration & Export						
	Data Contextualization and Advanced KQIs (incl. QoE Scoring)						
Data Inteliigence	Real-time line-rate data plane analysis		/AI based app on and categorization	Granular KPI c	reation	Policy Enforcement	
Deployment	Certified Server & Qualified Software Appliances, Virtual, and Cloud						

- Deployment Options: Variety of access-agnostic deployment options for fixed, mobile, and converged operators to deploy a single solution to manage the Video QoE of top video applications
- Data Intelligence: Real-time data collection for foundational KPIs measuring the
  performance and usage of accurately classified encrypted video traffic in all categories of
  applications and enforcing the operator's intent.
- Data Enrichment: Flexible and contextualized manual or closed-loop automated video policies per OTT application and advanced video KQls for quality assessment.
- Value Delivery: Video traffic and resolution distribution analysis and granular control of video traffic using industry-standard interfaces for saving CAPEX while preserving QoE.

#### Figure 2

Video Streaming Management Overview



#### **BENEFITS**

- Enhanced QoE Across Subscribers: Dynamically manage video resolution during peak hours to improve the streaming experience for all users.
- Deferred CAPEX: Maximize existing network capacity by efficiently managing bandwidth, delaying the need for costly upgraades.
- Revenue Opportunities Through Premium Video Plans: Enable differentiated service tiers, such as higher-resolution video packages, to drive additional revenue streams.
- Improved Operational Efficiency: Gain actionable insights into video usage trends and optimization opportunities through advanced analytics and real-time dashboards.
- Self-Service Video Management: Empower subscribers to enforce specific resolution levels, enhancing customer satisfaction and reducing operational overhead.
- Heavy User Management: Address excessive usage by limiting video resolutions for highbandwidth users during congestion periods, ensuring fair resource distribution.
- Regulatory Compliance: Maintain compliance with net neutrality guidelines through intelligent, context-aware traffic management policies.
- Device-Specific Optimization: Ensure efficient bandwidth utilization by delivering video resolutions tailored to device capabilities, reducing unnecessary data consumption.

### **KEY USE CASES**

Network, optimization, performance and marketing teams can benefit from VSM with the following use cases:

- Congestion Management: Manage bandwidth during peak hours by dynamically shaping video resolution to match device capabilities.
- Heavy User Management: Limit video resolution for heavy users when usage thresholds are exceeded.
- Service Differentiation: Introduce premium video plans with higher resolution Service Level Agreements (SLAs) for new revenue streams.

## **KEY SOLUTION COMPONENTS**

AppLogic Networks' use cases feature key software components, visualizations and tools, across each layer that enable each use case's full value:

Value Delivery	Deep Insights		
value Delivery	3 <sup>rd</sup> party Data Lakes		
	Insights Data Storage		
Data Enrichment	App QoE Engine, ANI Score Engine, Maestro Policy Engine, Maestro Automation Engine, Maestro Security Engine		
Data Intelligence	ActiveLogic, AppLogic, Intelligent Feeds		
Deployment Options	iQ42100, iQ42300, iQ52600, iQ2080 Dell PowerEdge XR-12, R760, VNF, CNF		

#### OUR COMMITMENT TO PROVIDING VISIBILITY

Our industry-leading AppLogic core technology delivers deep visibility into network traffic, unlocking new opportunities across every department. Key features include:

- Accurate Application Identification: Over 95% coverage, including encrypted traffic, ensuring precise network insights.
- Content Classification: Granular categorization of applications and services to enhance decision-making.
- QoE KPIs and Sentiment Analysis: Provides critical metrics and behavioral insights to optimize user experience.

AppLogic's capabilities empower operators with actionable insights, driving operational efficiency, customer satisfaction, and revenue growth.

<u>Contact us today</u> to learn how Video Streaming Management can enhance your network capabilities.

# Our Industry-leading unique core technology



## Unlock New

# **Business Opportunites**

Department	Business KPIs Improved
Ops	Operational Efficiency
Planning	Reduced CAPEX
Performance	Improved QoE
<b>Customer Care</b>	CSAT, Retention & ARPU Growth
Marketing	New Revenue Streams
Big Data	Enhanced Data Modeling
Regulatory	Compliance
Security	Rev Assurance & Fraud Prevention

#### ABOUT APPLOGIC NETWORKS

AppLogic Networks' cloud-based App QoE portfolio helps customers deliver high quality, optimized experiences to consumers and enterprises. Customers use our solutions to analyze, optimize, and monetize application experiences using contextual machine learning-based insights and real-time actions. Market-leading classification of more than 95% of traffic across mobile and fixed networks by user, application, device, and location creates uniquely rich, real-time data that significantly enhances interactions between users and applications and drives revenues. For more information visit https://www.applogicnetworks.com or follow AppLogic Networks on X @AppLogic Networks.



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