



# Enterprise Bandwidth Management

APPLICATION-AWARE BANDWIDTH CONTROL FOR ENTERPRISES



## Enterprise Bandwidth Management Delivers:

### MORE THAN APPLICATION AWARENESS

Industry-leading application identification and classification identifies more than 3500 applications, with better than 95% coverage of your internet traffic, allowing you to accurately optimize network traffic on an app, app category, or content category basis.

### SPEED AND SCALE

Architected for and proven on the world's largest and fastest networks, AppLogic Networks' bandwidth management recognizes network congestion. It automatically executes flexible policies with extremely low latency and intended impact on network traffic.

### FLEXIBILITY AND CONTROL

Flexible traffic selection includes, but is not limited to, IP addresses, transport protocols, ports, VLANs, MPLS labels, DSCP markings, app, content, and app categories detected by AppLogic, connection state information, various session contexts such as location, and L7 protocol headers extracted by ActiveLogic.

### ADVANCED TECHNIQUES AND ENFORCEMENT ACTIONS

Offers the most advanced and flexible traffic management techniques available today, including borrowing, parallel queuing, AQM, WFT, and Virtual Queuing. Act on the traffic via shaping, prioritization, filtering, steering, enrichment, NAT, and pre-defined triggers.

### ANALYTICS-DRIVEN TRAFFIC MANAGEMENT

Combined with 360° Network Observability, provides a closed-loop, continuous process to observe how your network is behaving and identify new ways to optimize as it grows and changes over time – no guesswork.

## EXECUTIVE SUMMARY

Modern enterprise networks face a persistent imbalance between growing application demand and finite network capacity. Cloud adoption, SaaS usage patterns, and hybrid work fundamentally change traffic flow and performance dynamics across the enterprise network, while rich media applications introduce sustained, high-bandwidth demand. Together, these shifts create localized, time-dependent congestion that disproportionately affects business-critical applications and user experience.

Enterprise bandwidth management solutions must therefore move beyond blindly adding more capacity, static rules, and best-effort traffic control. Enterprises need the ability to understand what is consuming bandwidth, who is consuming it, where congestion is occurring, and when intervention is required. Most importantly, optimization actions must be applied based on application behavior, network conditions, and business priorities.

## BUSINESS CHALLENGES

Traditional approaches to bandwidth management rely heavily on historical reports, static policies, or manual intervention. While historical trends are helpful for long-term planning, they are ineffective for managing real-time congestion events that unfold in seconds and vary by application, location, and user group. Static rules applied permanently across the network often overcorrect, degrade non-congested traffic, and introduce unintended side effects.

Enterprises also face a fairness challenge. Bandwidth controls must preserve equitable access while honoring business priorities and service-level expectations. Policies should activate only when network conditions demand them and should automatically relax when conditions normalize. Without continuous visibility, teams are forced to operate blindly, guessing which policies to apply and hoping they improve performance rather than degrade it.

## AN INTEGRATED APPROACH WITH FLEXIBILITY AND CONTROL

AppLogic Networks' Enterprise Bandwidth Management solution combines two critical capabilities into a single, closed-loop system: deep network observability and real-time network optimization. Together, these capabilities enable enterprises and MSPs to continuously monitor network behavior, identify congestion, and apply precisely targeted bandwidth controls with confidence.

## CORE CAPABILITIES

By unifying precise contextual-level traffic control, advanced traffic management techniques, multiple enforcement actions, and analytics-driven optimization decisioning, the solution enables real-time, adaptive optimization of enterprise network traffic.

### Precise Traffic Control

At the foundation of the solution is industry-leading application identification and classification. More than 3,500 applications and content types are identified with greater than 95 percent accuracy, even in encrypted environments. This level of visibility enables traffic to be managed by applications, application categories, and content categories, rather than relying on IP

## KEY BENEFITS AND OUTCOMES:

- Single solution-in-a-box with observability, bandwidth, traffic management, and reporting integrated in one box.
- Reduce or defer CAPEX for bandwidth and equipment by using existing capacity more efficiently.
- Congestion is addressed proactively and precisely, rather than reactively and broadly.
- Improve application and user QoE, meet business SLAs, cut trouble tickets, and increase NetOps productivity.
- Most importantly, enterprises gain confidence that bandwidth is being used efficiently, fairly, and in direct alignment with business priorities.

addresses or ports that no longer reflect real usage patterns. On top of that, policies can be defined using a rich set of contextual dimensions, including users and user groups, access technology, time, network conditions, and physical or logical locations.

DIMENSION	WHAT IT CONTROLS	SUPPORTED INTEGRATION	ENTERPRISE BENEFIT
<b>Who</b>	Users, groups, departments	Integrates with AD/LDAP/RADIUS to identify and prioritize users, business units and roles.	Align bandwidth and QoE with business SLAs per team or VIP group.
<b>What</b>	Apps, content, categories, IP destinations	Built-in classifications for apps, app categories, content categories, URLs, web categories, IPs, subnets.	Protect mission critical apps; contain recreational or non-compliant traffic.
<b>When</b>	Time and conditions	Built-in control for time windows, congestion, % bandwidth allocation trigger.	Trigger policies only during congestion or when needed; revert when conditions normalize.
<b>Where</b>	Link, building, AP, Switch, VLAN	Link and location mapping via WLC, Mapping files.	Allocate resources at the aggregate level or individual level.

### Advanced Traffic Management Techniques

The solution supports a comprehensive set of advanced traffic management techniques designed to meet precise network objectives. These include parallel queuing, active queue management, weighted fair queuing, virtual queuing, fair usage controls, and multi-layer shaping techniques. These mechanisms allow enterprises to prioritize critical applications, protect latency-sensitive traffic, and fairly distribute bandwidth during congestion without starving other users or services.

Because policies are condition-driven and context-aware, enterprises can implement sophisticated controls that align with business intent. High-priority applications and user groups receive the performance they require, while lower-priority traffic is managed dynamically only when necessary.

### Wide Range of Enforcement Actions

Once the desired traffic is identified, the solution supports a wide range of enforcement and optimization actions, such as shaping, prioritizing critical traffic, shaping/filtering non-essential usage, enriching flows, traffic steering, NAT, or trigger-based control. (see **Fig 1** on next page)

Figure 1

Bandwidth Management Range of Enforcement Actions

Complex Conditions



All Traffic	Subnet 10.10.10.0	DNS Traffic	Src/Dst Port	Download Content Category	WiFi Access
Location 1	Smartphones	All OTT Video	ToD	User ID	User Group A
Destination IP Address	Heavy Users	Conferencing Apps	Visitors	Threats	P2P Traffic

Simple Conditions



Any Condition



Any Action

**Analytics-Driven, Continuous Optimization**

Effective bandwidth management does not end with policy deployment. Networks evolve continuously as new users, applications, and services are introduced. AppLogic Networks' enterprise observability capabilities provide the analytics foundation needed to understand why congestion occurs, where optimization is required, and how policy changes impact performance.

By correlating application usage, user behavior, location-specific conditions, and quality-of-experience metrics, the solution enables data-driven optimization decisions. Network teams can validate the impact of applied policies, identify new optimization opportunities, and adapt controls as conditions change over time.

**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.



USA  
5800 Granite Parkway  
Suite 170  
Plano, TX 75024  
USA

EUROPE  
Neptunigatan 1  
211 20, Malmö  
Skåne  
Sweden  
T. +46 340.48 38 00

CANADA  
410 Albert Street,  
Suite 201, Waterloo,  
Ontario N2L 3V3,  
Canada  
T. +1 519.880.2600

ASIA  
Arliga Ecoworld,  
Building-1, Ground Floor,  
East Wing Devarabeesanahalli,  
Bellandur, Outer Ring Road,  
Bangalore 560103, India  
T. +91 80677.43333

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