AppLogic NETWORKS

Cloud and Data Center Solution Providers

Smarter, More Manageable Data Centers

SOLUTION BENEFITS:

- **Optimized consumer network services** for greater customer satisfaction and engagement

- **Reliable, low–latency networks** to ensure swift and confident transaction execution

- **Faster, confident adoption** of new cloud and digital transformation initiatives

- **Reduce network costs** through deferred equipment CAPEX and lower OPEX

- **Ensure SLAs are maintained** via increased visibility into network operations

- **Reduce trouble tickets** and increased NetOps productivity

The network operations teams for cloud and data center service providers have the unenviable challenge of managing some of the most complex networks anywhere. They face numerous challenges in balancing the needs of their various tenants and their workloads. Successful operation of the network is essential to maintaining high customer satisfaction as well as maintaining profitability. Many cloud and data center service providers are turning to AppLogic Networks' Enterprise Solution to give them the visibility and optimization they need to better operate their networks, deliver services that keep customers happy, and lower their network CAPEX and OPEX costs.

CHALLENGES

Cloud and data center service providers have the unenviable task of managing some of the most complex and demanding networks outside of the telecommunications market. They typically have highly diverse customers with differing requirements and have to meet very strict Service-Level Agreements (SLAs) and contractual terms.

As we enter the AI era, the demands on cloud and data center networks are going increase dramatically. The amount of data generated and moved within a location and shipped back to company offices has grown tremendously over the past ten years and will grow even faster over the next ten due to AI. This will place a heavy burden on the networks transporting the data.

The network operation demands on cloud and data center service providers are many and they include:

- Managing and maintaining an extremely complex network topology with highly diverse customers
- Controlling capital and operating expenses (CapEx and OpEx) costs that can easily spiral out of control when keeping up with bandwidth requirements
- Allocating and prioritizing traffic based on the specific requirements and SLAs per customer/tenant
- Managing the increasing amount of east-west traffic in the data center due to application migration and new edge AI solutions,
- The operation of hybrid cloud environments create new network loads and consumption patterns
- Identifying large bandwidth consumption, throughput and volume swings and anomalies and managing those swings to meet SLAs
- Creating, operating, and monitoring manageable service- and price-levels and the costs associated with those
- Monitoring and controlling customer/tenant bandwidth and volume quotas to meet contractual obligations
- Gaining visibility into network performance and operation to monitoring and maintaining SLAs as well as efficiently troubleshoot and resolve problems

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The network operations teams at cloud and data center service providers are struggling with ways to better control and operate their networks to meet these needs as well as ensure the security and proper use of the network.

APPLOGIC NETWORKS' ENTERPRISE SOLUTION

AppLogic Networks' Enterprise Solution is the only network optimization solution on the market that provides both key pillars – network observability and network optimization – integrated into a continuous optimization process to ensure your network operates smoothly and efficiently. Both components are supported by AppLogic Networks' industry-leading application classification, network data plane and real-time policy management technologies that have helped optimize some of the largest networks in the world.

- **Network Observability** – AppLogic Networks' advanced analytics provides a detailed understanding of what's going on with your network to identify and troubleshoot problems and pinpoint where and how to optimize.
- **Network Optimization** – AppLogic Networks' comprehensive traffic management capabilities give you the pinpoint controls to optimize your network where, when and how you need it in real-time.

Figure 1

Enterprise Solution Components

Network Observability	Network Optimization
Data Management	Policy Engine
Application Classification	
Real-time Data Plane	
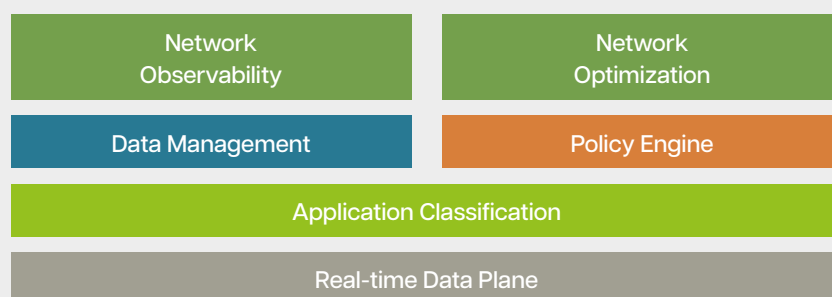
APPLOGIC NETWORKS' PILLARS OF NETWORK OPTIMIZATION

Network Observability

Many network heads in any organization struggle with gaining the visibility they need on their networks. The complexity of financial networks creates even more difficulty in gaining top-level visibility and the details of what specifically is happening. If the goal is to optimize the network, you can't figure out where and how to optimize without detailed analytics.

AppLogic Networks' comprehensive network observability provides the breadth and depth of analytics to provide visibility for operating the network from day to day and to identify ways to optimize network traffic. With AppLogic Networks' network observability, you get:

- Comprehensive dashboards for network, user and application performance with actionable insights
- Machine-learning driven Quality of Experience scoring and 15 network performance metrics
- Multi-dimensional data model with 7 network dimensions and correlated scoring and metrics across all dimensions
- Application-, user-, and location-aware metrics
- Anomaly detection and alarms engine
- Drill down into dimensions and values for troubleshooting and optimization identification
- Real-time (LiveView) metrics and performance data correlated across different dimensions

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Figure 2

Enterprise Insights Network Observability
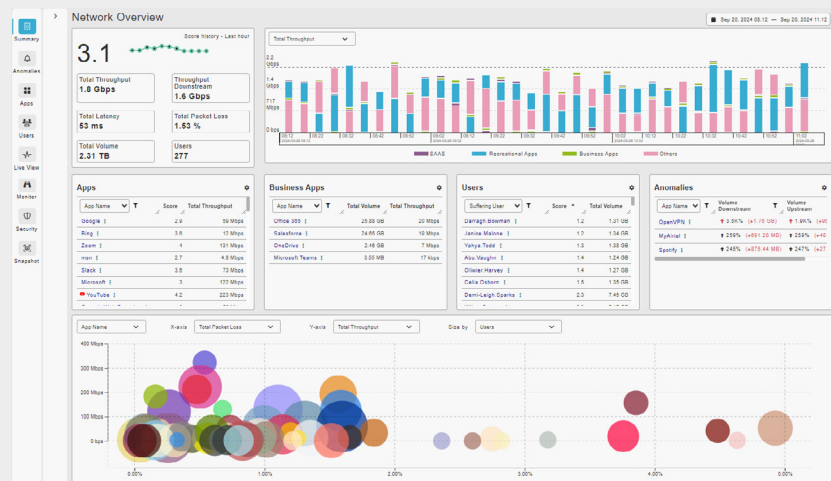
Network Optimization

Cloud and data center networks are especially challenged because of the diverse nature of their tenants – with each customer having varying workloads and types of workloads. This diversity can lead to conflicting demands on the network both across tenants as well as within a specific tenant.

AppLogic Networks has industry-leading traffic management capabilities that give you the pinpoint attributes over who, what, when, where and how of optimization and the real-time controls to execute policies. With AppLogic Networks' network optimization, you get:

- Real-time, low-latency policy execution
- Dynamic policies with many different attributes
- Contextual policy attributes
- Situational, time, analytics, network condition and custom policy triggers
- Policy execution metrics and statistics

Figure 3

Enterprise Traffic Management for Network Optimization
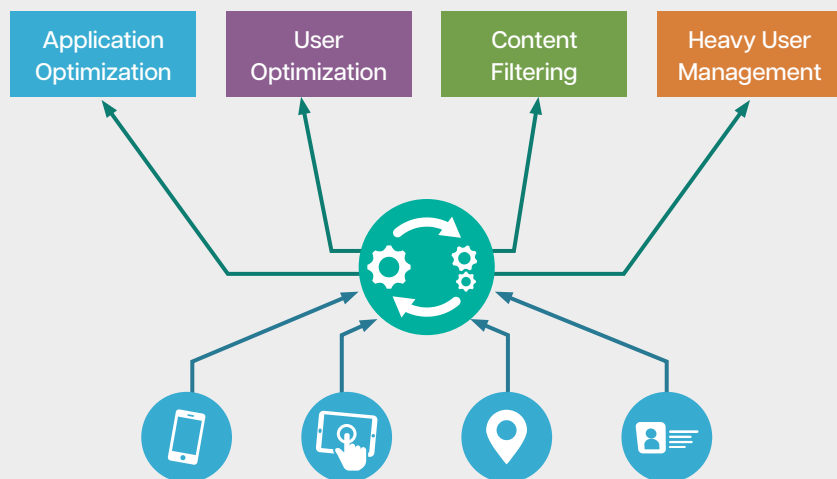
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APPLOGIC NETWORKS FOR CLOUD AND DATA CENTER SERVICE PROVIDERS

AppLogic Networks provides the perfect solution for data center service providers to manage and operate their networks. The solution helps gain critical visibility and while better controlling network traffic flows to optimize their networks in a manner that balances the varying needs of the network. The solution uniquely provides:

- The industry's leading application classification technology with over 95+% classification of traffic, the highest in the industry (others have no more than 60%)
- Dynamic, real-time optimization policies that can be applied with many different attributes and understand network conditions for the best possible optimization
- Depth and breadth of the network observability data and insights to provide unmatched contextual insights for troubleshooting and optimization
- Advanced machine learning-based QoE scoring models that use real-world data to understand the impact of a deep set of metrics (15) on applications and content, and
- Extremely high-scale and low-latency network data and optimization proven at some of the largest networks in the world

APPLYING APPLOGIC NETWORKS AT A CLOUD OR DATA CENTER SERVICE PROVIDER NETWORK

Cloud and data center service providers can apply the AppLogic Networks' Enterprise Solution to solve a number of different problems and specific use cases, including:

Observability
- Increased overall visibility into network traffic, network use, and performance along a wide variety of dimensions including locations, access points, devices, applications, application categories, application groups, users, user groups and destination
- The ability to immediately see and identify problems along the above mentioned dimensions, troubleshoot issues and rapidly resolve them
- The ability to monitor and analyze traffic along different locations and access points to understand potential congestion issues and identify resolutions
- The ability to monitor SLAs at various levels to ensure services are in accordance with customer plans and contracts
- Monitoring the use of various applications and services as well as identification of the abuse of these applications and services

Network Control and Optimization
- The implementation of fair use policies, even across various plans, to ensure consumer users get fair use of network services with their lane of the network
- The ability to apply blocking and filtering policies to prevent abuse of the network by specific tenants
- The ability to apply shaping policies that manage network traffic to prioritize critical traffic and limit non-essential traffic as needed
- The application of policies to prioritize traffic on specific access points and for specific operational applications and content used by critical applications
- The ability to shape and control bandwidth allocation and quotas in accordance with the customers' plans and contracts
- The implementation of quota management to monitor quotas, track by pricing/plan tiers, and control use in accordance with the quotas and plans

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THE RESULTS

Using AppLogic Networks' Enterprise Solution, cloud and data center network operations teams can see immediate results including:

- Better managed, deferred, or eliminated CAPEX costs for network equipment to increase bandwidth capacity,
- The ability to allocate and manage costs in accordance with specific customer needs rather than purely on overall bandwidth requirements,
- Reduced OPEX costs due to lower subscription and network service costs and higher NetOps team productivity,
- Maintaining agreed SLAs within various customer plans while ensuring high Quality of Experience and response time for each customer/tenant
- The ability to maintain business continuity, reduce trouble-tickets and have faster mean-time to resolution of network problems
- Return on investment payback in 6 to 8 months based on cost savings and better network productivity

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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