AppLogic NETWORKS

Airport Network Operations

Smarter, More Manageable Airport Networks

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

Airport network operations teams face numerous challenges in balancing the needs of consumers and those of the airport and airline operations teams. In some ways airport networks need to mimic consumer Wi-Fi networks in the services they provide to customers in the airport. At the same time, the network is critical to the operations of the airport requiring the need to ensure operational applications run smoothly. Many airports are turning to AppLogic Networks' Enterprise Solution to give them the visibility and optimization they need to better operate their networks and lower their network CAPEX and OPEX costs.

CHALLENGES

Airports are facing new operational challenges for their networks as they strive to balance the needs of consumer Wi-Fi use and their operational needs. Operational use of networks by staff continually grows while the need to provide more advanced consumer services is adding fresh and heavy demands on network resources as well.

These new demands have a trickle effect down to the network and network operations, including:

- Increased OpEx and CapEx costs to maintain and operate their networks
- Highly variable bandwidth use based on passenger volumes can overwhelm network capacity and create congestion
- Explosive network traffic growth in new consumer content and services – video, streaming, recreational – can also put a strain on bandwidth consumption
- Ensuring the real-time flow of critical operational data
- Always on systems and applications require highly resilient networks with minimal to no outages
- Shifting application usage patterns and priorities
- Cloud migration and the operation of hybrid cloud environments create new network loads and consumption patterns
- The inability to gain complete visibility into network performance and usage

Network operations teams 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.

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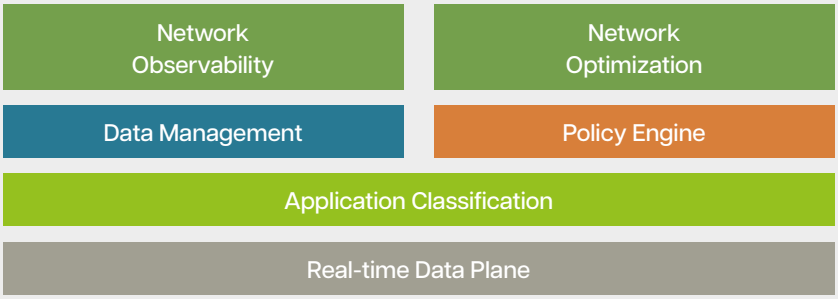
APPLOGIC NETWORKS' ENTERPRISE SOLUTION

AppLogic Networks Enterprise Solution is the only network optimization solution on the market that integrates two key solution components into a continuous process – network observability and network optimization – to ensure your network operates smoothly and efficiently. The solution is 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



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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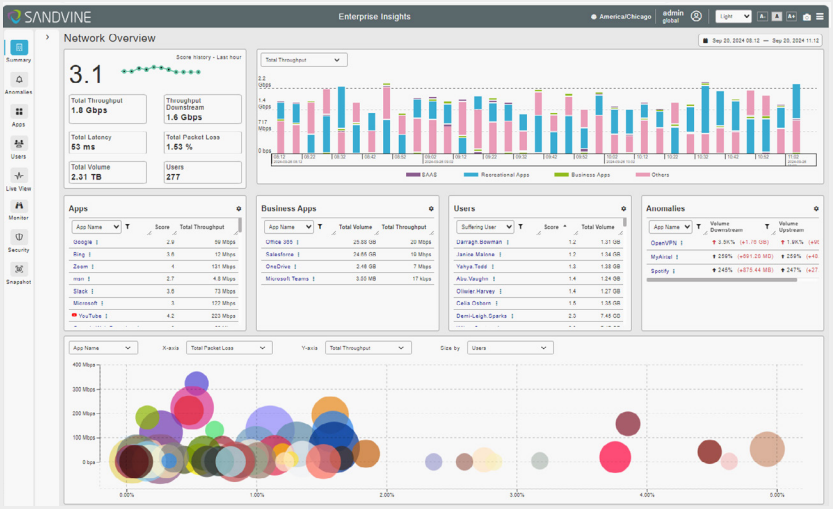
Figure 2

Enterprise Insights Network Observability



Network Optimization

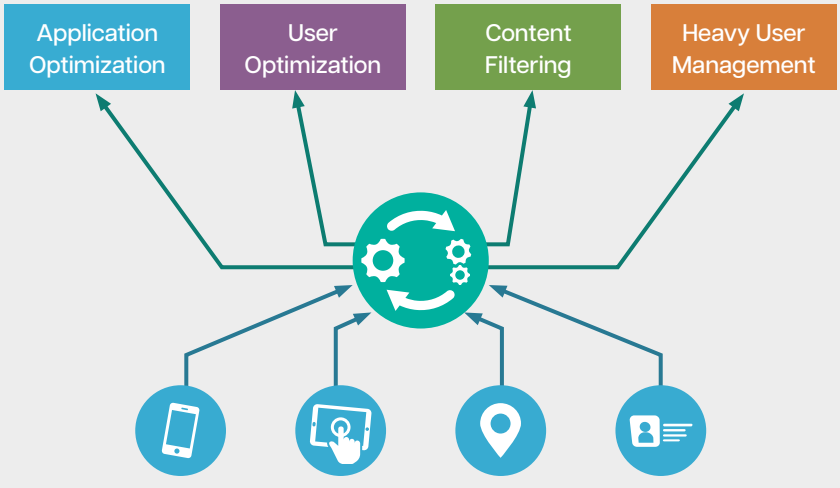
Airport networks are especially challenged because of the diverse nature of their constituents – consumers act like network subscribers while operations teams act like and need to be supported as business users. This diversity can lead to conflicting demands on the network across users, user groups, applications and locations.

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 AIRPORTS

AppLogic Networks provides the perfect solution for airports 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 AIRPORTS

Airport network operators can apply the AppLogic Networks' Enterprise Solution to solve a number of different problems and specific use cases, including:

Observability

PASSENGER/CONSUMER NETWORKS	AIRPORT OPERATIONAL NETWORKS
• 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 • Monitoring of consumer users, their activity and their quota usage to manage their use of various Wi-Fi plans • Monitoring the use of various services and identification of the abuse of these applications and services	• Monitoring the SLAs and Quality of Experience for airport operational applications • Identifying and troubleshooting problems with network services for operational applications and resolving these • Segment networks and locations for operational and consumer usage and monitor operational segments to understand potential congestion issues and identify resolutions • Monitor airport staff network use to ensure networks are effectively used for operational needs

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Network Control and Optimization

PASSENGER/CONSUMER NETWORKS	AIRPORT OPERATIONAL NETWORKS
• 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 such as heavy downloads and software updates or visiting illicit websites • The ability to apply shaping policies that manage network traffic to limit certain activity by consumer users such as heavy consumer video streaming use, recreational gaming, or peer to peer file sharing • The ability to control consumer Wi-Fi use in accordance with tiers/plans and the ability to shape bandwidth allocation and quotas for users within those plans The implementation of quota management to monitor quotas, track by pricing/plan tiers, and control use in accordance with the quotas and plans for the consumer network • The implementation of quota management to monitor quotas, track by pricing/plan tiers, and control use in accordance with the quotas and plans for the consumer network	• Segmentation of the network for consumer and operational use and policies to allocate bandwidth and resources to those specific segments • The application of policies to prioritize traffic on specific access points and for specific operational applications and content used by critical airport operations staff • Prioritize sensor/IoT network traffic to ensure critical information such as baggage or others is reliably transmitted • Increase operational network resiliency by reacting to problematic network conditions in real-time and applying policies to ensure critical traffic gets priority

THE RESULTS

Using AppLogic Networks' Enterprise Solution, airport network operations teams can see immediate results including:

- Lower, deferred, or eliminated CAPEX costs for network equipment while maintaining desired bandwidth capacity
- Reduced OPEX costs due to lower subscription and network service costs and higher NetOps team productivity
- Greater passenger satisfaction by maintaining agreed SLAs and a high QoE for airport and airline staff and operational teams so they can be more responsive to customers
- Greater customer satisfaction with airport network and WiFi plans by maintaining high QoE within various consumer plans and offering a better overall airport experience
- The ability to maintain network resiliency and business 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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