



WIRELESS NETWORK UPGRADE
WHITEPAPER



Upgrading Alabama's busiest airport

Established in 1931, The Birmingham Airport has been serving as Central Alabama's gateway to the sky for almost 90 years. It was dedicated as the Birmingham Municipal Airport with service from American Airways. After more than 50 years of growth, it now offers service from American, Delta, Frontier, Southwest, and United, and operates over 100 flights daily. It has been governed by the Birmingham Airport Authority since 1986. In 2008, it was renamed the Birmingham-Shuttlesworth International Airport in honor of civil rights activist Rev. Fred Shuttlesworth. A \$201.6 million terminal modernization project was completed in 2014 resulting in nearly twice the footprint, but with only minimal impact on the community and environment. BAA is the state's largest airport in terms of passenger traffic, over 2.6 million served annually, and that number continues to grow.

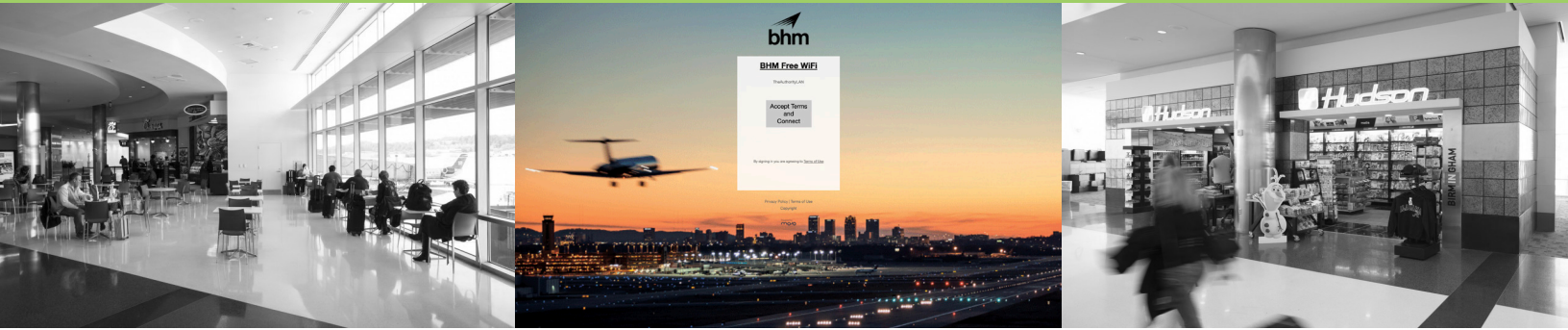
The Birmingham Airport Authority was unhappy with their existing wireless network. They approached JSCM Group about evaluating and updating their wireless infrastructure.



Air travel has always involved waiting in airports. In today's world, tighter security measures often means even longer delays. Wi-Fi is no longer simply a means to connect us to the Internet. The explosion of mobile devices has now reached a point where business travelers, as well as families, have one or more Wi-Fi-enabled devices. In this new, Wi-Fi-connected world, you must have quick, available, real-time visibility into crucial information such as signal strength, bandwidth consumption, access point utilization, and more.

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With modernization and expansion projects completed, the facility's technology was part of the next phase for review. The Birmingham Airport Authority was unhappy with their existing wireless network. They approached JSCM Group about evaluating and updating their wireless infrastructure. Goals for a new WiFi environment included improved security for passengers, cloud-based monitoring and management, the ability to track guest usage, and to provide a seamless and stable solution. All of these goals and more were met with WatchGuard's Wi-Fi Cloud.



The Wi-Fi Cloud Solution

The WatchGuard Wi-Fi Cloud solution included 17 AP120 devices in the administrative areas to provide a secure work environment for BAA staff. There are 10 AP322 devices installed outside the terminal to provide coverage for on-site car rentals, taxi areas, the cell lot, and the baggage handling area. The AP322 is a ruggedized unit with an IP57-rated enclosure which protects it from wind, rain, and weather events, while delivering broad, fast, and reliable coverage. Throughout the internal passenger areas, we installed 33 AP 420s. Utilizing 4x4 MU-MIMO 802.11ac technology and a dedicated 3rd radio for 24/7 WIPS protection and connectivity optimization, the AP420 offers blazing fast wireless speeds.

JSCM Group deployed both an internal (staff) and guest wireless network, which are segmented from each other for security. By using a single SSID for all guest connectivity, we are able to provide uninterrupted, seamless roaming for passengers as they move through the terminal. We utilized a standard template for all access points to ensure requirements were met and consistency was maintained. The WatchGuard Wi-Fi Cloud

environment provides BAA with centralized management, an unlimited number of access points across multiple locations, does not require a hardware-based controller infrastructure, offers location-based analytics, and performs everything from a single interface.

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WatchGuard AP120



WatchGuard AP322



WatchGuard AP420



WatchGuard has been in business since 1996 and is headquartered in Seattle, Washington. They are a pioneer in cutting-edge cyber security technology. Intelligent protection, actionable visibility, and simplified management are the core pillars of their comprehensive portfolio of network security services.

JSCM Group is a Platinum Reseller and WatchGuard Certified Training Partner. JSCM Group has been in business since 2000 and is headquartered in Huntersville, NC. We offer cyber security testing and remediation, firewall management, and training, and have been named partner of the year by WatchGuard on multiple occasions.