MicroAutomation
CUSTOMER CONTACT SOLUTIONS

Case Study

BWI BALTIMORE/WASHINGTON INTERNATIONAL Thurgood Marshall AIRPORT

Baltimore/Washington International Airport Recognized for Airport Security Award using MicroAutomation's Enhanced 911 Solution

Background

The Maryland Aviation Administration (MAA) owns and operates the Baltimore/Washington International (BWI) Thurgood Marshall Airport located in Anne Arundel County, Maryland. In Fiscal Year 2015, BWI recorded traffic of over 22.7 million passengers for both domestic and international travel. The airport consists of 5 concourses (4 domestic and 1 international), 68 jet gates, and 5 commuter aircraft gates spread out over 45 acres.

To provide security and emergency services for the airport, the MAA established the Consolidated Dispatch Center (CDC) which is responsible for emergency calls for service processing and dispatching for all airport police, fire, and emergency medical services at the airport. The CDC monitors and responds to several thousand alarms generated from campus-wide safety and security systems and functions as an emergency center for airport emergency calls. The airport maintains numerous mutual aid agreements with jurisdictions surrounding the airport.

Challenge

To support the increasing passenger traffic, airline traffic, and the expanding airport infrastructure, the MAA and BWI decided that the CDC would need to be upgraded and secured to ensure it could meet the demands of the rapidly growing airport. The objective of the CDC Upgrade Project was to expand and improve the public safety communications and emergency call for service systems at the BWI airport.

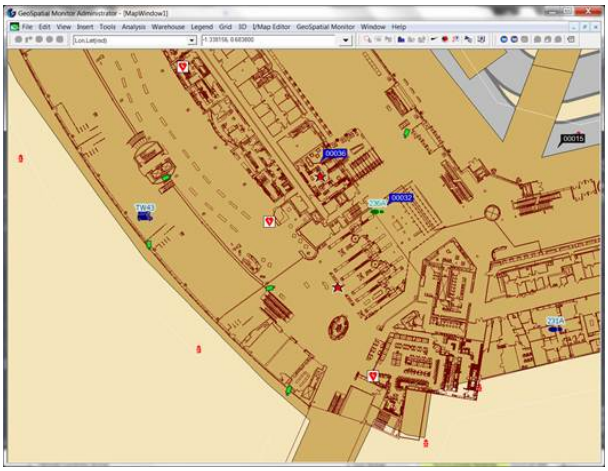
The upgraded CDC platform needed to consist of a robust set of integrated systems with redundant components capable of supporting a Primary CDC and a backup CDC at an offsite location to handle the immediate requirements and growth plans for the airport. From an emergency communications perspective, the solution needed to be compliant with the National Emergency Number Association (NENA) standards for an E9-1-1 capable telephony system and a telephone database management system with the ability to leverage BWI's existing NEC telephony infrastructure consisting of 7 interconnected NEC telephone switches. The solution needed to also include a robust and customizable Computer Aided Dispatch (CAD) solution for multi-system, multi-agency coordination.

Solution

MicroAutomation partnered with Intergraph Public Safety (now Hexagon) to propose a solution that combined the power of the Intergraph's CAD and security products with the capabilities and flexibility of MicroAutomation's E-911 solution. The proposal from MicroAutomation and Intergraph was selected over the other bidders primarily because of MicroAutomation's ability to customize the E-911 solution to work with BWI's existing NEC telephony environment.

In support of the project, MicroAutomation architected a solution that allowed the CDC to operate as a Public Safety Answering Point (PSAP) and assisted BWI with the process of establishing themselves as a Secondary PSAP to neighboring Anne Arundel County's Primary PSAP. MicroAutomation also helped BWI coordinate activities to validate the location information for all telephones operating on airport property and connected to the NEC telephony infrastructure.

The installed solution includes Intergraph's I/CAD and I/Security products integrated with MicroAutomation CallCenter Millennium (CCM) E-911 solution. MicroAutomation's CCM E-911 solution was able to efficiently integrate all systems components including the airport's existing 7 NEC telephone switches. The solution also includes a complete Standalone Automatic Location Identification (SALI) database that allows BWI to integrate their unique location information (e.g. concourse level and nearby door identifier) with traditional address information and deliver it to dispatchers. Mapping was introduced to visually display the location of the caller in the airport as the emergency call is routed to the CDC operator.



In addition to MicroAutomation's E-911 solution, the integrated systems include: Intergraph's CAD system configured with automated vehicle locator (AVL) and mobile data computer subsystems, an enhanced 911 emergency call processing system with instant recall/recorder functionality, a NENA-compliant master clock, a controlled access and closed circuit security system, a 911 database management system, a fire alarm monitoring system, a fire station alerting system, dispatch consoles and associated dispatch furniture. The fully integrated E-911, PSIM, and CAD allows complete situational awareness from detection to assessment to response through the integration of video and sensor system monitoring and control coupled with communications and dispatch capabilities.

The solution is also equipped with MicroAutomation's E-911 Diagnostics Dashboard (EDD) application that constantly monitors the system and detects component and system failures. EDD supplements the redundant solution design by identifying component failures and notifying appropriate personnel before a major system failure occurs.

Summary of Results

- Solution allows BWI to operate as a Secondary PSAP
- Fully redundant configuration with operational overflow/backup CDC for major events or disaster scenarios
- Integrated Mapping and accurate airport location information

Results

Using MicroAutomation's E-911 solution combined with Intergraph's public safety and security solutions, the Maryland Aviation Administration has a fully integrated platform, including all necessary software, hardware and integration services for multi-system and multi-agency coordination. The CDC now monitors and responds to alarms generated from campus-wide safety and security systems and operates as a Secondary PSAP to Anne Arundel County's Primary PSAP. 911 calls placed by concourse or wireless callers are routed immediately to the Anne Arundel County PSAP and transferred to the CDC with the caller location information.

As a result, the Baltimore/Washington International Thurgood Marshall Airport was recognized by Government Security News magazine's Airport/Seaport/Border Security Awards program in the categories of Most Notable Airport Security Program, Large Airports and Best Physical Security Information Management System (PSIM).

"This highly successful project provided our security and public safety personnel with cutting-edge emergency response technology. The improvements to the consolidated dispatch center help ensure increased responsiveness and situational awareness. We are honored by the recognition from Government Security News."

- Paul J. Wiedefeld, Chief Executive Officer of BWI Thurgood Marshall Airport

About MicroAutomation

MicroAutomation's legacy Enhanced 911 and new Next Generation 911 PSAP solutions are proven, powerful and reliable. Developed to be effortless and intuitive when every second counts, Emergency response solutions from MicroAutomation expertly accommodate expanding communities, changing technologies and evolving 911 standards. MicroAutomation's purpose-built Next Generation solutions adapt seamlessly to all PSAP requirements and call-taker needs while adhering to NENA i3 specifications to meet the 911 technologies of today – and tomorrow.

MicroAutomation also offers Emergency Operations Center products and professional services including:

- Omni911 Next Generation 911
- Complete PSAP and ESINet architecture and design
- Configurable, custom application development
- Turnkey implementation
- Comprehensive 24-hour/7-day customer support
- NENA i3 standards compliance
- Joint Interoperability Test Command (JITC) Certifications

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