MicroAutomation Implements the Only DoD Cloud 911 Solution for the Army at Aberdeen Proving Ground

Background

Aberdeen Proving Ground (APG) is the Army's oldest active proving ground, established in 1917 and occupying a land area of 113 square miles with more than 21,000 civilian, military, and contractor employees. APG's facilities include more than 17 million square feet of building space located in over 2,000 buildings, to include offices, administrative, training facilities, warehouses, barracks and family housing.

The tragic shooting of U.S. military personnel at Fort Hood in November 2009 underscored the need for the Department of Defense (DoD) to thoroughly review its approach to force protection and to broaden its force protection policies, programs, and procedures to go beyond their traditional focus on hostile external threats. As a result of the incident, the U.S. Army commissioned an independent review related to Fort Hood to assist the DoD in identifying existing gaps and deficiencies and to help broaden the DoD's focus protection approach to reflect more effectively the challenging security environment in which the DoD operates.

The independent review found that there was no DoD policy for implementing public law requiring a 911 capability on DoD installations. Civilian communities already have Enhanced 911 (E-911) programs funded through a national tax on phone services; but, most DoD installations did not, because DoD installations were not part of the Congressionally mandated requirement. The commission determined that military personnel should receive the same emergency response services as their civilian counterparts.

Challenge

Based upon the DoD mandate, Aberdeen Proving Ground (APG) began looking for a 911 solution that met the stringent requirements of the US Army. First, the solution needed to be certified by the Joint Interoperability Test Command (JITC) where the solution needs to comply with DoD Interoperability (IO) standards and meet Information Assurance (IA) requirements. JITC IO compliance identifies a limited number of JITC certified telephone switches with which the solution must be proven to interoperate. IA compliance ensures that the solution meets the networking and security standards outlined in the evolving DoD Security Technical Implementation Guides (STIGs).

Second, the solution needed to operate on the Army network backbone with an approved authority to operate (ATO) certification. Army ATO certifications require that the solution be tested on the Army networks and meet even more stringent IA standards and Army operating system requirements.

Third, APG desired that the solution meet the new Army Cloud Computing Strategy with key components of the system to be deployed in a secure DoD cloud that provides the minimum set of security controls necessary to protect critical information against known and emerging threats. Cloud-based solutions and services were determined the best way to advance the Army's long-term objective to reduce ownership, operation, and sustainment of hardware and other commoditized Information Technology (IT). Over time, the goal of the Army cloud initiative is to boost IT operational efficiency, increase network security, improve interoperability with mission partners, and posture the Army to adopt innovative technology more quickly at lower cost.
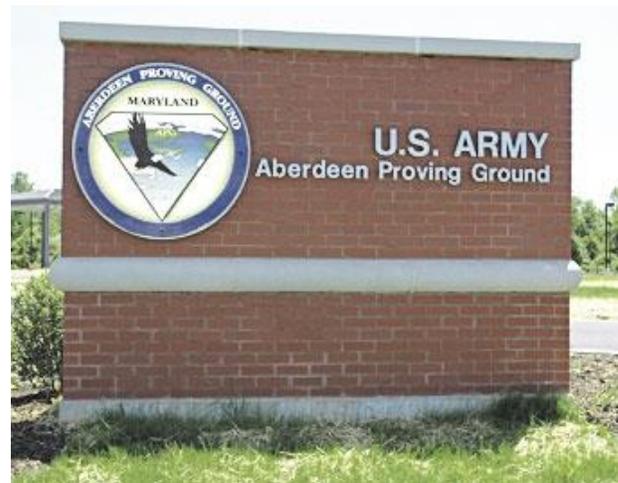
Solution

APG reached out to E-9 Corporation and its partner, MicroAutomation, to acquire a JITC certified, Enhanced 911 (E-911) and Computer Aided Dispatch (CAD) solution that met all of their requirements. MicroAutomation and E-9 designed and deployed a comprehensive integrated public safety command and control solution for the APG Emergency Communications Center (ECC) that manages all aspects of Police, Fire, and Emergency Management Services (EMS) incident management. The solution consists of

MicroAutomation's CallCenter Millennium (CCM) E-911 solution, InterAct (now Caliber Systems) CAD, Mapping and Automatic Vehicle Location (AVL) for the Aberdeen Department of Emergency Services (DES) and back up facility at Edgewood, MD.

Implementation of the solution required staff to work with many disparate systems at APG including integration with the local private branch exchanges (PBX) and the E-911 circuits from the local carrier.

The MicroAutomation CallCenter Millennium E-911 solution leverages the existing base telephone switch for call routing and delivery. E-911 (aka CAMA) circuits from the local telephone carrier are connected to the Avaya S8800 base telephone switch via gateway systems provided by MicroAutomation to receive calls from commercial base facilities (e.g. restaurants, housing, etc) and from wireless callers. ECC dispatchers use telephones (standard or VoIP) provisioned on the base telephone switch to receive emergency and administrative calls from base personnel and visitors.

The MicroAutomation E-911 solution utilizes CTI to receive call event information from the switch when emergency calls are received by dispatchers in the ECC. The caller's telephone number is used by the system as a key to retrieve location information for the caller from local and remote Automation Location Identification (ALI) databases and automatically display the ALI and call back information to the dispatcher. Integration to the InterAct CAD system is facilitated over a National Emergency Number Association (NENA) compliant communication the CAD system over IP.

Results

The flexibility of the MicroAutomation CCM E-911 solution and the InterAct CAD system allowed for APG to implement a hosted solution

Summary of Results

➢ Only E-911/CAD system certified to operate on the Army network backbone with full Army security approvals

➢ Hosted E-911 solution as a service (SaaS) in the Army cloud

➢ JITC certified E-911 Solution with DoD _and_ Army IO / IA certifications

➢ Able to support NG9-1-1 standards when APG switching infrastructure migrates to Voice Over IP (VoIP)

on the Army network that conforms to the Army Cloud Computing Strategy. The solution is fully Common Access Card (CAC) enabled meeting DoD security requirements and adheres to the DoD Information Assurance Certification and Accreditation Process (DIACAP) with all STIGs meeting APG requirements.

The solution was successfully deployed at the APG main site and additionally provides service to the backup facility at Edgewood, MD. As of today, the E-911/CAD system deployed by E-9 and MicroAutomation is the only system on the US Army network backbone that has full Army security approvals. Furthermore, the solution will soon be compliant with the DoD Risk Management Framework (RMF) when APG is required to migrate to standards.

The MicroAutomation CCM E-911 solution was recently recertified at JITC for the new Windows 2012 R2 operating system to comply with new Security Technical Implementation Guide (STIG) standards currently mandated by the US Army. In addition, the latest version of the CCM E-911 solution supports Next Generation 911 standards allows the dispatcher workstation to be used as a SIP end point device eliminating the need for a physical telephone and allowing full integration of shared telephone line features in the application.

About E-9 Corporation

E-9 Corporation (E-9) is a diverse, ISO and VOB certified, Service-Disabled Veteran-Owned Small Business (SDVOSB) providing experienced information technology, management, and support services.

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:

- CallCenter Millennium E-911
- Integration with legacy telephone switching environments
- Complete PSAP and ESINet architecture and design
- Configurable, custom application development
- Turnkey implementation
- Comprehensive 24-hour/7-day customer support
- Compliant with NENA standards
- Current Joint Interoperability Test Command (JITC) Certification

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