



Motorola Guides the City of Virginia Beach to Upgrade their E911 System

City Upgrades Multi-Vendor E911 System for New Emergency Communications Center



Motorola's Mission Critical Network Services guides Virginia Beach to a fully integrated, secure, multi-vendor E911 communications upgrade

Situation

Virginia Beach, a major coastal resort, is well known as the “world’s largest pleasure beach” with 35 miles of pedestrian beaches along the Chesapeake Bay and the Atlantic Ocean. The city is the largest in the commonwealth of Virginia with 432,000 year-round residents and about three million overnight visitors annually.

With that many lives in their hands, maintaining an effective emergency communications strategy for first responders is top of mind for the city, evidenced by its mission of “Making Virginia Beach a safer community in which to live, work and visit.” With that in mind, the city recently completed construction of its new state of the art Emergency Communications Center (ECC) and Emergency Operations Center (EOC) and began the evolution to a next generation E911 communications network.

Challenge

Designing the new ECC/EOC would require a multi-vendor approach with a complex blend of network strategies and subsystems. Doug Onhaizer, Communications and Information Technology Administrator for the City of Virginia Beach, knew that without an optimal design strategy, implementation methodology, and support plan, the E911 network could be subject to increased security risk and reduced performance. Rather than maintaining separate networks for each component—telephony, radio and Public Safety Applications including Computer-Aided Dispatch (CAD)—Onhaizer sought an integrated network that would be securely isolated from the outside world and protected against unauthorized intrusion.

In addition, once the network was in place and operational, Onhaizer needed to ensure that the system’s ongoing operation and availability achieved the highest quality that its first responders, residents, and visitors expected. The City of Virginia Beach began to look for a highly capable partner that could fulfill the dual role of both vendor and consultant to ensure the success of this complex emergency communications environment.

“Motorola is the only service provider with IT integration capabilities as well as in-depth experience and knowledge of public safety applications, radio networks, and dispatch centers. Motorola’s expertise is not limited by specialty or service, making them the best at seamless mobility consultancy and implementation.”
—Doug Onhaizer, Communications and Information Technology Administrator, City of Virginia Beach

“We wanted our new ECC to be an example of how a city’s E911 system can and should work,” says Onhaizer. “It was critically important that we found someone who had the skills and resources to carry out the upgrade of the E911 system seamlessly and without incident.”

As a long time provider of communications equipment and services to the City of Virginia Beach, Motorola was again selected to provide extensive consultative services, analyzing and recommending crucial components for the ECC upgrade.

Solution

Calling upon the proven processes of Motorola’s Mission Critical Network Services, Motorola worked with the City of Virginia Beach to gain an in-depth assessment of the city’s needs. The team then conducted a deep-dive network evaluation and analysis of the multi vendor components to get a view of the requirements for the new network.

Acting as a trusted advisor, the Motorola team recommended that the network be isolated into different zones through core firewalls configured in a fault-tolerant cluster that would support both load-balancing and hot-standby failover modes in order to ensure the highest level of security and safety from external intrusion.

As part of the service portfolio, Motorola played a key role in overall planning and project design, as well as installing the data center LAN component of the city’s enhanced 911 Call Center. Motorola also provided project management services throughout the entire process, including coordination and cooperation of several hardware and application software vendors.

“As early as we can, whether it’s conducted in the pre-RFP stages or during contract negotiations, we assess the customer’s existing network prior to the deployment of any application or services that would be deemed mission critical,” says Paul Lanci, Motorola Director of Global Solutions Architects, Networks & Enterprise Business. “With Virginia Beach, we were able to come in prior to the

implementation and orchestrate a solid, effective, end-to-end design.”

Motorola’s mission critical network services ensure that any Computer Aided Dispatch (CAD) installation or upgrade is deployed into a certified networking environment and identifies potential issues that are then documented and remedied for the customer.

Motorola also provides a secure multi-channel remote access solution to address the inherent challenges of providing ongoing support to the Virginia Beach multi-vendor network environment. The remote access system consists of a firewall and VPN concentrator and is accessible via a dialup modem pool or over one of two dedicated broadband connections to support IPSEC or SSL-VPN connectivity. The flexibility and security of the Motorola solution provides remote access which permits timely resolution of any issues or maintenance activities that require access to the network, with the added benefit of 7/24 worldwide accessibility to any authorized support engineer with access to a phone line or internet connection. User authentication measures implemented on the system ensure that remote access sessions are traceable to individual accounts and to specific vendors—an important aspect of maintaining user accountability in multi-vendor environments.

“The Virginia Beach E911 network is similar to wireless set-ups,” says Neil Kunzler, Senior Account Manager, Motorola. “It’s a collection of subsystems. In Virginia Beach, we took that concept and applied it to a building environment, thereby making the LAN-based system and wireless components one seamless integrated network, providing a user experience that transcends network boundaries.”

As a trusted advisor and meta-integrator for the Virginia Beach team, Motorola’s advisory services ensured that every customer requirement for the network was defined and addressed—from planning to implementation all the way to supplying ongoing network support.

“From the onset, we were comfortable selecting Motorola for major portions of our new mission critical network,” says Onhaizer. “Because of their experience solving and installing mission critical systems and knowing what it takes to make those systems successful, we knew Motorola could pull together all the disparate equipment, applications, and vendors and manage the entire project from end-to-end.”

Results

The early involvement and consultative approach of the Motorola Services team ensured an optimal and secure solution for the new Virginia Beach ECC/EOC complex. Bolstered by Motorola’s unwavering commitment to the network, the City of Virginia Beach has also adopted a comprehensive Motorola Support Services portfolio including network maintenance and optimization, and management of repair and replacement for third part equipment and applications.

“The Mission Critical Network is the backbone of our operations and needs to operate efficiently, securely and always be available,” says Onhaizer. “Motorola assists in the maintaining and troubleshooting of this complex multi-vendor network to ensure it is always operating at the highest level. And if there’s a problem, we make one phone call to Motorola. They took a very complex network and made it easy for us to operate.”

With more than 75 years of unmatched experience providing mission critical communications, Motorola is the best choice for implementing upgrades such as the one required by Virginia Beach. “We can catch the depth and breadth of what the customer needs and expects and point them in the right direction based on many years of experience with similar networks,” says Lanci.

Leveraging all the capabilities of Motorola Services—from advisory services to installation to post-implementation support—Motorola delivered Virginia Beach a unified interface and one point of contact for all services throughout the entire project and beyond.



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