ROCCC becomes model for regional dispatch

Center speeds response times, expands coverage

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Duxbury, Massachusetts, is a quaint little town located on Cape Cod Bay, 35 miles south of Boston on the South Shore. Renowned for its cranberry bogs and oyster beds, Duxbury has also become the model for regional dispatch centers throughout the Commonwealth. Known today as the Regional Old Colony Communications Center (ROCCC) or 'The ROCK', this regional emergency communications center (ECC) has demonstrated how smaller municipalities can overcome the budgetary hurdles that tend to restrict the quality of emergency response they provide. And at the core of its success is the Avtec Scout dispatch console.

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The challenge

The transformation from a local dispatch center to a regional ECC began in 2012 when Duxbury became the Public Safety Answering Point (PSAP) for itself and for the nearby town of Plympton. This signified the birth of the Duxbury Regional Emergency Communications Center, fondly referred to as the DRECC, which answered all 911 calls and dispatched police, fire and emergency medical services for both towns. A third community, Halifax, joined the regional PSAP shortly afterwards.

Unlike a single small-town dispatch operation, a regional dispatch center typically has multiple dispatchers on duty who can answer the phone, dispatch the emergency services, and provide accurate emergency medical information to the caller. A regional dispatch center also has the benefit of a larger budget, an advantage that was recognized shortly after the DRECC was formed.

Operationally, the center garnered attention from the Commonwealth's State 911 Department as well as local PSAPs in other neighboring towns. The DRECC was eager to add more local PSAPs to its geographical footprint. However, neither its building nor its dispatch communication technology (at the time) could handle such growth. Through research, creativity and hard work, the DRECC's staff applied for and secured over $1 million in state grant funding to make improvements to its building, infrastructure and technology.

And that's when things started to get interesting. The year was 2015. The DRECC served as the dispatch hub for police, fire and EMS for three communities in the Commonwealth. The DRECC's leadership knew it couldn't add any more local PSAPs until its dispatch capabilities were updated. The legacy dispatch system in use at the time was old, tired and unable to keep up.

> " We had outgrown [our system]. Once we added the third town, the old system couldn't handle that many different inputs. It just got too busy on the touchscreen to be user-friendly. Also, replacing worn hardware for the older legacy system became a problem. If a part had to be replaced, it wasn't easy finding a spare.
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> — **Michael Mahoney, ROCCC Public Safety Communications Director**

The solution

That's when Michael Mahoney, ROCCC's Public Safety Communications Director, learned about Avtec dispatch consoles. The DRECC's vision was to stay on the cutting edge of technology for emergency communications, and the version of Avtec's dispatch console at the time exceeded the definition of 'cutting edge' — with its direct wireline control of repeaters and use of fiber optics. Back then, most dispatch console communication systems relied purely on radio-frequency (RF).

Screen configuration was another challenge. According to Mahoney, "When we added the third town to our regional PSAP, there wasn't enough real estate on the screen to fit the amount of information our dispatchers needed."

There wasn't enough real estate in the building for the dispatchers, either. After adding that third town, the PSAP's existing building was torn down, so a new and larger facility could be constructed on the same site. That meant that the model agency for regional 911 in Massachusetts would operate from inside a FEMA trailer for an entire year.

A year later, the center moved into its new facility and migrated from the Avtec hardware dispatch system to the new, software-based Avtec Scout system. It also officially changed its name: the DRECC was now the ROCCC. The ROCCC also added two more towns to its coverage area — Hanson and Hanover — dispatching police, fire and EMS for a total of five communities in 2019.

Rochester, Massachusetts was the most recent town to join the ROCCC. The town is located roughly 40 miles south of Duxbury and is in no way contiguous with the rest of the municipalities serviced by the ROCCC. Yet, its inclusion into the regional PSAP demonstrated how the improved technology of the Avtec Scout dispatch console helped to improve the lives of Rochester's citizens and the growth of the ROCCC.

And that's been the real beauty of the Avtec Scout system, according to Mahoney. Dispatchers can be located a million miles away, however, when first responders hear them on the radio, the dispatchers sound as if they're talking from the same town. "That one aspect of the Scout system made our lives a lot easier, for sure," he said.

> " Let's say our dispatch center goes down for whatever reason — a storm or a fire or some event like that. All I have to do is send my dispatchers over to the regional PSAP next to us. They log-in on the Scout consoles over there, and bam — they're dispatching for us. To my knowledge, few, if any, PSAPs possess that ability.
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The benefits

But it was far from the only benefit the Scout dispatch console provided. Tertiary redundancies of all systems were high on the ROCCC's list of 'have to have' features. Because dispatchers are always in response mode, they need a system that delivers without fail, regardless of where the technology is located. The Scout console was (and still is) designed with built-in redundancy layers, ensuring the ROCCC's dispatchers were 'always on' with exceptional audio quality during times when every second matters.

Scalability was also a must-have benefit for the ROCCC. Mahoney added, "We haven't slowed down yet. We've still got our foot on the gas pedal for growth. We want to add new communities and better services. When it came to communication ability, we needed to be confident that we could scale our dispatch operation up to eight, 10 or 12 times our normal dispatch seats — at a moment's notice, if necessary." The Scout console made it easy for the ROCCC to increase its number of users and to access their dispatch resources from any location.

But it was one of the Scout console's innate yet sometimes overlooked features that Mahoney mentioned as most valuable to the ROCCCs operations: its multiple log-in capability.

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In ten years, public safety communications in the Commonwealth of Massachusetts have transformed from 351 local PSAPs with largely inadequate capabilities and response times to 24 regional emergency communication centers that utilize cutting-edge technology like the Avtec Scout dispatch console.

Today, the ROCCC is the fastest growing of those two-dozen regional communication centers in the state. It now serves more than 59,000 residents from its six member towns. And it has room to grow up to 100,000 residents while still having extra workspace in the center for more dispatchers in case of a storm or if another dispatch center loses its facilities in an emergency. Between five to seven dispatchers are on duty every hour of the day and night.

When it comes to emergency response times, the national standard is that emergency calls should be dispatched within 90 seconds of receiving the 911 call. The ROCCC's staff answers 99% of incoming 911 calls within 10 seconds and dispatches most of those calls between 10 and 60 seconds — all to the appropriate first responders in each of its six respective communities.

This dramatic decrease in response times was the result of technology teamed with tenacity: with the Avtec Scout consoles in full operation, the ROCCC was able to negotiate an agreement that allows mobile 911 calls in its six towns to route directly to its dispatch center. Previously all 911 calls in the Commonwealth were first answered by the state police emergency communication center, who would then route each call to the applicable local PSAP. Bypassing the state police led to significantly shorter response times for the ROCCC.

Beyond the game-changing benefits the Avtec Scout dispatch system provides the ROCCC, Mahoney was quick to laud the Scout console's user-interface. "It's just so aesthetically pleasing," he said. "Scout makes quite an impression on first-time visitors, like mayors and town council members. They'll point at our dispatch workstations with the big Scout monitors and say, 'What's that?' You should see their faces when we tell them it's our state-of-the-art radio dispatch system. They're astonished."

Benefits
- Faster response times
- Exceptional audio quality
- Scales easily for future expansions
- Expanded, unified coverage
- Improved reliability
- Built-in system redundancy
- Ability to back up neighboring agencies
- Dispatch from any location
- Flexible, efficient screen configurability
- Multiple log-in capability
- Direct wireline control of repeaters

To learn more, visit
www.motorolasolutions.com/AvtecScout

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