



CONSOLIDATION AND RADIO INTEGRATION LEADS TO BETTER AGENCY COLLABORATION IN DUPAGE COUNTY, IL

“One of the greatest things we have in this county is the ability for all first responders to be able to communicate together. We have a common communications platform,” commented Brian Tegtmeier, DU-COMM Executive Director. “Police being able to talk to fire, fire being able to talk to police, and the ability for different 9-1-1 centers to Emergency Telephone System Board of DuPage County (ETSB) communicate effectively with each other.”

Emergency Telephone System Board of DuPage County (ETSB)

DuPage County Public Safety Communications, called DU-COMM, is an intergovernmental agency, formed in 1975, to provide communication services to public safety agencies in DuPage County Illinois; answering over 1.1 million calls in 2016 and serving over 600,000 police, fire, and Emergency Medical Services (EMS) incidents. Today there are 62 agencies that are part of ETSB and each one has a voice when discussing county-wide public safety communications.

DUPAGE COUNTY, IL

- Collar county of Chicago
- Serves a population of 930,128
- Covers 336 square miles

EMERGENCY TELEPHONE SYSTEM BOARD (ETSB)

- Serves 62 municipal and county agencies
- Utilizes the STARCOM21 statewide radio system
- Operates 3500 public safety radios
- Manages three state-of-the-art consolidated dispatch centers
- Annually over 1 million 9-1-1 calls handled in the 9-1-1 centers, 2 million calls overall





JOINING THE STATEWIDE SYSTEM

In 2010 the county decided to join the Motorola owned and operated STARCOM21 statewide system to create an interoperable radio communication system county wide. The STARCOM21 system is a statewide Project 25 trunked radio system. It is used by the state police, state toll highway authority and multiple counties. With over 240 hardened radio sites throughout the state it provides a robust interoperable communication platform for public safety agencies.

In addition to talking countywide John Lozar, DU-COMM System Coordinator, explained the added benefit of joining the statewide STARCOM21 radio system, “We’re able to talk statewide, we’re able to talk with a lot of our neighbors in Cook County, Kane County, and we can talk all the way to the Wisconsin border.”

There were also financial benefits of joining a statewide system, pointed out Linda Zerwin, Executive Director, ETSB. “Getting out of the infrastructure business was more cost effective instead of owning tower equipment; you pay a monthly fee to be on the [statewide] system. “We are more effectively spending tax payer money and that’s good government” Gary Grasso, ETSB Chairman.

INTEGRATED SYSTEM CREATES EFFICIENCIES

“With the STARCOM 21 system, we are able to change on the fly depending on what situations are happening; active shooter incidents, major traffic accidents, snow events,” shared Zerwin. “We’re able to move to different talk groups and redistribute our radio traffic effectively, and communicate as needed.”

Dave Anderson, Police Chief, Village of Lisle, shared an example of how an integrated radio system helped during a major crisis, the April 2013 flood in the Village of Lisle. “We had over 600

homes to evacuate along the flooded east branch of the DuPage River and the St. Joseph Creek. Twenty seven police and fire departments responded and we had teams in boats, including fire fighters who had to fight house fires from boats. “It was a terrible event but we had communication between all of the first responders to address safety needs. The result of that communication, in my opinion, was the single biggest factor in not having any injuries. This event increased our radio traffic by 800% and the radio system performed well and without interruption” pointed out Zerwin.

“We had a hostage situation [a bank robbery] in Wheaton, Illinois with multiple agencies responding and we discovered we were unable to effectively communicate. So we looked for an interoperable radio system that would combine basically a hodgepodge of different radio equipment and bring them all under one umbrella as a countywide unified system,”

Linda Zerwin, Executive Director,
Emergency Telephone System Board for DuPage County.

DISPATCH CONSOLIDATION REDUCED REDUNDANCIES

After the consolidation of the radio network, ETSB focused on consolidating dispatch centers. The county went from 22 dispatch centers down to three. Two of the largest centers are fully redundant, creating an overall safety plan for the communities. Together the three centers have 73 dispatch positions and one more seat than the original 22 dispatch centers had combined.

“Consolidating the dispatch centers took time,” Zerwin explained. “When you’re closing centers, there’s a lot of detail. It takes six to nine months to close a center and bring it into our consolidated system, because we want to make sure we do it right. You’re bringing over and standardizing procedures with agencies that are coming into it. But the real value is a reduction of redundancy or overlap.”

“When we had the smaller PSAP, you would only have, at most, three dispatchers working at any given time. Now you have a lot of dispatchers that can jump between talk groups to help each other out. So from an officer safety standpoint, we can track our officers better and for the community, we can answer their concerns much better. So I believe it was a huge officer safety gain for us as well as a community safety gain,” said Anderson.

SAVING TAXPAYERS MONEY

Consolidating down these call centers, are now saving the taxpayers of DuPage County about \$7 million a year in personnel costs and about \$4 million in hard costs. But there’s more than just the financial benefit according to Gary Grasso, Chairman of the Emergency Telephone System Board. “We’re here to make sure people are safe, and when you’re talking about 911, you’re talking about time, and you’re talking about saving lives and saving property. And so the more we consolidate, the more efficiencies we get, the more uniformity we have when we have a call and people know we’re going to be there to respond to them, the better service we’re giving.”

“There’s a clear cost savings for departments,” said Philip Norton Police Chief, Village of Glen Ellyn as he talked about the benefits of a consolidated dispatch center. “For the money I pay to DU-COMM for dispatch services, I couldn’t possibly buy the equipment and hire the personnel to dispatch on my own. Over time, more and more agencies will discover the savings in this type of consolidation.”

“In DuPage County we’re all about working together for the community and how do we provide services the best way.”

—Linda Zerwin,
Executive Director ETSB





CONSOLIDATION TURNS IN TO COLLABORATION

"Things that we knew would happen with consolidation, we knew that municipalities would save money, the village would save money and everybody would save money because we're sharing resources. What we didn't count on is what happens in the [dispatch] room when an emergency happens," said Delores Temes, Director, Addison Consolidated Dispatch Center. "That 9-1-1 call of the rollover car fire on the expressway, where 22 passersby all call 911, in the old days we would have been inundated, there would have been no way for one or two dispatchers to handle all of those calls. Today, all of the dispatchers focus on that emergency, and processed it as quickly as possible. The number of resources that we can point to any one emergency is a hundred times greater. That was kind of the unexpected. We didn't realize that that would happen." Joe Leone, Fire Chief, Addison Fire Protection District explained the collaboration benefits he sees as a firefighter in the field. "The consolidated dispatch center is absolutely one of the best things that happened

in DuPage. We [police and fire] communicate much better with one another. In the past we had to monitor a police radio, they would always get a different story than what we would get. Now it's the same story on the police frequency as it is the fire frequency. And in the past, the police were dispatched well before us, and it would take several minutes for a call to transfer. Now they're getting dispatched the same time we are."

"Well, the three of us [police, fire and dispatch] really wouldn't be able to do anything without each other," commented Stefan Bjes, Sergeant, Addison Police Department. "We could not do our job without the fire department. We could not do our job without the dispatchers. The biggest thing is interagency collaboration. Without each other, we don't function. Forming great working relationship with dispatchers, fire personnel, and law enforcement is crucial to being successful in protecting and serving our communities."

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—Stefan Bjes,
Sergeant Addison
Police Department



EVENTS BEGINS IN DISPATCH

“The dispatcher, they’re the glue that holds together police, fire, and medical. They are the heroes behind the scene,” said Temes. “We always say that dispatchers are the first, first responders. They start the call. If the call comes in sideways, they’ve got to straighten it out the best they can. Unfortunately you can imagine that people call 9-1-1 with every problem under the sun. They have to turn that chaos into something that means something professional for the people that are responding.”

In the case of a person having a heart attack, the communication chain starts with the dispatcher clarified Anderson. “They help get the person onto the floor, get them into an environment where they could be saved. It happens long before even the first officer gets there. Then the officer takes over, that communication continues in chain to the EMS people. But that radios the key component; it’s the chain, the one constant throughout any of these responses.”

Anderson went on to describe. “There are so many examples of serious events like hostage situations, officer pursuits, domestics where people are isolated, suicide attempts. And we were able to track these events live, based on just somebody keying up a radio and being able to hear what’s going on.”

THE RADIO IS A LIFELINE

“We saw the smoke in the sky and them calling for help. There were firefighters missing. The particular firefighter that was in the building when it blew up we feared the worst, that he was probably dead, until he got on that radio. It was nice to hear his voice,” said Erik Kramer, Deputy Fire Chief, Addison Fire Protection District.

“As the fire chief the last thing I want to have to worry about is the radio. I want to be able to turn it on, push the button and talk and have somebody answer me. I’m not a technology guy. I don’t want to know how it works. I just want to know that when I need it to work it’s gonna work. And we’ve never had a problem with the Motorola radios,” according to Jeffrey Janus, Fire Chief, Bloomingdale Fire Protection.

Lozar agrees. “The radios have got to work. That’s where we come in. We interface with the users and if there’s something that’s happening with the radios that doesn’t make sense, we need to be able to explain and make them comfortable with it and tell them why we’re doing what we’re doing, so that this life line, this radio that they’re depending on, is better for them. It’ll make their jobs easier.”

“The radio is an important tool for every firefighter, officer, paramedic out there in the field. During any type of emergency incident, we can call for help, we can communicate with the dispatch center, we can depend on our radio. It’s our lifeline.”

—Bill Anaszewicz,
Deputy Fire Chief,
Elmhurst City.

KEEPING THE RADIOS OPERATIONAL

Lozar has been with DU-COMM for 25 years. He just loves his job and takes the maintenance of the radios seriously. "I get my satisfaction from being able to see how well the radios perform. The Motorola radios are very durable, but because of the preventative maintenance schedule we put them on we reassure the agencies that the radios are always going to be ready for them to use. The software updates and the alignments that we do to the radios bring the radio to like new condition. We're on our eighth year now on these radios, and most of them are just as good as day one when we first got them."

ETSB handles their radio maintenance in house, but they also know if they need additional support Motorola Solutions is there

for them, Lozar explains. "There's been a few instances where we've needed some help, and the Motorola support in those cases has been invaluable to keep us going. Whether it's setup or commissioning, Motorola's got a vast talent base that can help."

The field teams understand the value of maintaining the radios as expressed by Janus. "The radio programming team, they're excellent. They do a great job for us. Whenever we have any issues they immediately respond they're able to make things work for us but thankfully we don't have a lot of issues."

SOFTWARE UPDATES PROVIDE PEAK PERFORMANCE

"Everything now is software driven. From the standpoint of maintenance, it's easier to be able to maintain them, because you can actually hook up a computer to them, you can analyze them, you can get raw data, you can do updates if you need changes to be done."

"I think it's critical to update your radio software because, not only do you have feature updates that may make your job easier, but there's also bug fixes. There might be a situation that's occurring in a radio and the bug fix will resolve it, it'll make your organization more efficient and it'll make your job actually easier."

—John Lozar



WITH DEVICE MANAGEMENT MANAGING RADIOS IS EASIER

There are challenges managing such a large fleet of 3500 radios but ETSB has programs in place. "It would be impossible for us to track, maintain, and upgrade radios by just conventionally plugging them into a computer," said Lozar. "We have a system where we can have a depository, which we call containers in Radio Manager. We load all of the radios in [Radio Manager], and then remotely we do any code plug changes or channel alignments that are needed."

"We keep that history, if you will, within Radio Manager. We have what's called virtual servers, where we take all these different code plugs, we put them in what we call a container for that agency, and then we host that virtually on a server. It's

made our life so much easier because once we've done all that work remotely then we can go to the agency and we can just put the radios on the computer and they get aligned and everything gets done to them."

Not every agency has a team available to manage a fleet of radios so Lozar highlights the value of working with Motorola. "Motorola Solutions has a complete line of device management services from the set up to radio commissioning, database hosting and software support; whatever an agency might need to make sure radios are ready to perform for their agencies."



COMPLEXITY MANAGED

With public safety communications there is a complex network of technology and radios that keep operations running smoothly. When the technology is managed correctly it is often forgotten by the users using the system.

"It's the confidence that the systems are running 24/7," shared Zerwin. "It has to work all the time, everyday, holidays, weekends, middle of the night when our citizens are sleeping. We have to have the confidence that it's working all the time. Because in our position you're never really 100% calm because you're dealing with people in emergency situations or critical situations, so it allows you to be calm because you have faith in your equipment."

"There are situations my firefighters' been in, and the only thing assuring us that they're okay was keying up the radio and saying, 'I'm okay'." Leone describes what manage the complexity means to him, "I don't have to give two thoughts about the radio I'm working with, that it's going to perform. If I have to sit here and think about if the radio's going to perform or not, I can't be at that highest level."

"Complexity managed, calm prevails is a great term for what we do," said Tegtmeier. "It's the environment that we have where there's so many things going on behind the scenes. When you put all these tools and systems in front of a highly trained telecommunicator, they're able to save lives. And at the end of the day, that's the most important thing they do is that they save lives by being the calm voice and by having a reassuring tone and being able to answer the call and dispatch the appropriate police, fire, and medical services."

KEEPING CALM IS CRITICAL

"They have to be calm, they have to get the call out right. It doesn't matter what's happening, the screaming on the other end of the phone, the panic. The people that wear the headset everyday that answer those calls, remain calm, know exactly what to say, provide excellent service, they're the heroes," explained Temes. "You have to work through it, and get everybody what they need and do the best you can every single day, every single call. I think that fits exactly what dispatchers do. The responsibility that they have to the citizen to get the citizen help, and we have to know how to deliver it to our fire, our police immediately and efficiently and to keep the first responder safe, to get them all the tools that they need to perform their job. "

"There's a saying that dispatchers say, we're the calm in the darkness," according to Tracy Severson, 9-1-1 dispatcher DU-COMM. "We have to be that person that calms that person down. It's their worse day when they call, so, we have to be the one that can kind of take control of it and calm them down and make sure that I'm staying calm so that we can get them the help they need."

"It's a calm voice. It's me speaking for you when you can't. It's me protecting you, and knowing where you are when you don't. When everything in your head is scrambled, and you have no idea what you need, I'm going to figure that out for you."

—Sam Hall, 9-1-1 dispatcher
Addison Consolidated
Dispatch Center.



"The work of a police officer can be physically demanding but it can be taught. It's the attitude you need to have in a department, it's the attitude of the officer who wants to help people. I talked to our new officers all the time prior to them being hired, and I always ask them, "Why do you want to be in law enforcement?" And often times there's almost an embarrassment as they explain, "Well it sounds trite but I want to help people." And I always tell them, "When you say that, you look me in the eye and you say full throated I want to help people 'cause there's nothing wrong with that."

- Philip Norton Police Chief, Village of Glen Ellyn

HELPING A CITIZEN - THAT'S WHAT IT'S ALL ABOUT

When someone says "Thank You" it makes it all worth it. "There was a dad whose 16 year old daughter was having a seizure. At the beginning of the call he was very upset and not wanting to work with me to get general information." As Severson goes on to explain, "This is someone's worse day. So, we're getting through it. I got the paramedics going. He's starting to calm. I'm giving him instructions. She's doing fine. So, finally, there's just this kind of relief. After the responders got there and before we hung up the call the dad said, I really want to thank you. Thank you so much".

"I've been fortunate enough to work with Motorola Solutions a lot over the years, and I've always been pleased in my interactions with them. They've been a very responsive company for our demands. They've provided us with the highest level of technology when we've needed it. They've solved problems for us when we needed them. And they're really innovators in looking at what the solutions are for us and fitting and tailoring things for our needs. That's probably been the best thing about working with them."

-Brian Tegtmeier, Executive Director, DU-COMM

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