5 Ways NG911 Can Improve Your Agency

AND MORE:
- What is NG911 & Why Should You Care?
- People & Organizations Who Can Help
- Getting Started: A Chief’s Checklist

Police Chief Jeff Olson, Cedar Falls, Iowa
Sheriff Tony Thompson, Black Hawk County, Iowa
Police Chief Larry D. Feaker, LaPorte City, Iowa
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By Deputy Chief Eddie Reyes

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About the Cover Story:
Black Hawk County, Iowa, was the first agency in the U.S. to receive texts to 911. (From left): Police Chief Larry D. Feaker; Judy Flores, Director, Black Hawk Consolidated Communications Center; Police Chief Jeff Olson; and Sheriff Tony Thompson.

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Clockwise from top left: Greg Brown (3), © Dana Hursey/Radio Images/Jupiterimages, Funnel Inc.
What is NG911 (and Why Should You Care)?

Since its debut in 1968, there’s no question that the 911 system has been a great success. But it has not kept up with the rapidly increasing number and type of communication devices that Americans now depend on. And sometimes its age can prove disastrous: When Hurricane Katrina struck, some 38 emergency call centers were unable to function during the storm and in its immediate aftermath.

The vast majority of the nation’s call centers, or PSAPs, use analog equipment that cannot receive text messages, videos or photos or certain calls from computers. Even worse, the location of calls made on a mobile device can be difficult for today’s PSAPs to accurately pinpoint. And when calls overwhelm a call center — as during a natural disaster or even a vehicle crash — they can’t be transferred between centers or rerouted, which can leave citizens without needed aid.

Upgrading to Next Generation 911 (NG911) transforms an outdated public safety system into a digital network that is faster, more efficient, more cost-effective and safer for the public and for law enforcement.

As part of the public safety communication ecosystem, it is important that NG911 work seamlessly with the envisioned national public safety wireless broadband network, which will increase the amount of data available to officers and deputies in the field.

It can provide law enforcement with more and better information about perpetrators, crime scenes and accidents even before officers or deputies arrive on-scene; it makes it easier for the public to communicate with call centers; and it keeps a PSAP from being overwhelmed with calls.

Making the transition to NG911 isn’t an “if” — it’s a “when.” Unfortunately, we in law enforcement, haven’t been as quick to act on NG911 as we should have been. But police chiefs, sheriffs and their teams clearly have a very important place at the NG911 table; after all, most PSAPs are run by a police or sheriff’s department.

Don’t be surprised if you start hearing more about NG911 in the coming weeks and months: Law enforcement agencies around the United States are already improving their systems and equipment and training their telecommunications on the new technology. Many more are exploring the possibility of making the transition. Make no mistake: NG911 is not 20 years away. It’s here and now — and it reflects the way the citizens you serve are already communicating with each other.

There’s still work to be done to decide on standards for software and hardware and how systems will work together. That’s why it’s crucial that law enforcement joins — and does its part to lead — the NG911 conversation now.

Eddie Reyes is the deputy chief of the Alexandria Police Department in Alexandria, Va., and sits on the Transportation Safety Advance-ment Group (TSAG) as a stakeholder representative for the International Association of Chiefs of Police. Reyes has worked closely with TSAG vice chairman Sergeant Dan Dytchkowskyj of the Erie County N.Y. Sheriff’s Office.

NG911 Glossary

ESInet = Emergency Services Internet protocol network; a special Internet designed for emergency responders and the technical backbone of an NG911 system
IP = Internet Protocol
NG911 = Next Generation 911
PSAP = Public Safety Answering Point; the centers that process 911 calls
VoIP = Voice over Internet Protocol
5 Ways NG911 Can Improve Your Agency

The potential benefits of an NG911 system are significant – from safer officers to better service to your community.

Roger Marcoux, Sheriff of Lamoille County in Vermont and chair of the state’s Enhanced 911 Board, says that NG911 “takes law enforcement into the 21st century.” Simply put, NG911 means upgrading technology across the U.S. from the current, decades-old telephony-based 911 service to a system that will allow law enforcement and the public to better communicate via text messages, videos, photos and more. The benefits for police, sheriffs, highway patrol and others are tremendous, says Eddie Reyes, deputy chief of the Alexandria Police Department in Alexandria, Va. “We’re talking about enhancing the level of communication with the public,” explains Reyes. Here are some of the biggest benefits law enforcement leaders and their agencies can expect from moving to NG911:

1. **Improved Officer Safety**
   With NG911, a 911 “call” will take very different forms: Staff at PSAPs will be able to receive, process and store text, pictures and videos from citizens. Even better, that information can be quickly — sometimes almost immediately — relayed to first responders, giving them more precise information. For example, access to live video from cameras inside a bank being robbed could give responding officers valuable information about suspects, weapons and the number of hostages.

   NG911 also permits other digital information, such as maps, to be forwarded to officers, says Marcoux. “Most of the law officers [in Vermont] have mobile data terminals in their vehicles so we could push a map out to them instead of having the 911 operator relay this information verbally,” he explains. “When you’re working alone in a rural situation, the more information the officer has, the safer he will be.” Dispatchers could quickly send backup to help a wounded officer wherever he is in a sprawling rural area. Another benefit will be the ease in which dispatchers can share intelligence with officers, providing additional information on what could be a dangerous situation.

   In the future, the effectiveness of the NG911 system’s ability to share data back and forth with officers in the field should increase as the First Responder Network Authority (FirstNet) establishes a wireless public safety broadband network.

2. **Improved Efficiency**
   One big benefit of NG911: The new technology will allow PSAPs to identify the location of callers — especially those on wireless devices — faster and more accurately so law enforcement can find citizens quickly in an...
emergency. “Because NG911 provides more precise location information automatically, an officer won’t spend as much time looking for a car that went off the road and into a ditch,” says Mark Grady, founder of INdigital Telecom which provides NG911 technology to the state of Indiana.

Getting more evidence in the form of videos and photos will be very useful when it comes to solving cases or taking them to trial. “If someone snaps a picture of a license plate or a suspect, that’s obviously beneficial to law enforcement,” says Marlys R. Davis, E-911 program manager for King County in Seattle.

With this information, a deputy or officer would be able to identify and catch a suspect more easily. Adds police chief Reyes: “We would significantly increase the apprehension and case-closure rate with the amount of evidence coming into our center.” Transferring a 911 caller’s information between jurisdictions is far easier, too, when agencies are on the same Internet Protocol (IP) technology. Jackie Mines, director of emergency communication networks for the Minnesota Department of Public Safety, couldn’t do that with her previous network. “That alone is a huge benefit,” she says.

**Improved Public Safety**

In 2005, the year before NG911 came to Indiana, Grady says that a citizen who dialed 911 would wait 23 to 27 seconds for the call to be routed to a 911 operator; with NG911, that’s now less than 3 seconds. “If you’re waiting for someone to take a call during a domestic violence situation, things can go sideways on you pretty quick,” he notes.

Texting for help is also potentially life-saving when citizens can’t make a call or speak without endangering themselves. The major wireless carriers have agreed to support texting to 911 by 2014, however, NG911 texting applications will continue to improve upon the proposed services.

Similarly, an upgraded emergency response system will provide better public service in a natural disaster or other emergency. NG911 call centers will be able to instantly re-route a call to another tier of PSAPs if the first is not available. This was essential when Vermont was struck by Hurricane Irene. “Our second-busiest PSAP in Rutland had to be evacuated,” says Jim Lipinski, former Enhanced 911 IT manager for Vermont, one of the first U.S. states with a statewide NG911 system. “In a traditional 911 system, calls would have queued up and people would have abandoned them.” But during the storm and its aftermath, the system was able to distribute the load throughout Vermont – meaning every 911 call was answered swiftly.

**Better Access for Special-Needs Communities**

The deaf and hard-of-hearing, the mentally disabled, the physically disabled and senior citizens will especially benefit from an upgrade to the nation’s 911 system, since it will be easier for them to reach 911 with their phones, without requiring additional devices. Judy Flores, director of the Black Hawk Consolidated Communications Center in Waterloo, Iowa, helped launch the country’s first text-to-911 program in 2009.

“The biggest benefit so far is allowing our citizens to have that extra access point, in particular our hard-of-hearing and speech-impaired community,” she says. “They have the same access as anyone else [now].”

**Potential Costs Savings**

Upgrading to NG911 is not inexpensive, but over time, the agencies that upgrade will save money through efficiencies. Vermont was able to save significant funds by rerouting 911 calls from a PSAP that was taking less than 1 percent of the state’s calls because the new IP technology can pick up calls from other parts of the state. As already noted, it’s easier, faster and less expensive to share information between jurisdictions and agencies; many communities and regions will likely combine their resources to make the transition to NG911 possible.

Then there are the incalculable costs. Says Flores, “If you save one life because you made an improvement, how can you measure that?”
NG911 for Law Enforcement

How will upgrading to Next Generation 911 technology help law enforcement agencies? Here are some scenarios you might see in an NG911-powered agency.

All over the U.S., law enforcement and other emergency services agencies are starting to talk about upgrading their legacy 911 public safety communication centers and systems to new technology. Some have launched pilot programs — such as text-to-911 — and a few have even migrated to NG911. Every state and local authority will need to work with law enforcement to decide which systems and features are right for them. Note: Scenarios depicted here may include other systems and applications that will work with the NG911 PSAP. This is a simplified depiction of call routing and the entire emergency response ecosystem, of which NG911 is an envisioned component.

**IMPROVED ACCESS TO 911**

Sometimes, citizens can find themselves in dangerous, even life-threatening, situations in which speaking to a 911 call-taker would put them in even greater danger. In these cases, the ability to send a text message to request help is much safer.

**IMPROVED SERVICE TO SENIORS & DISABLED**

Those in rural communities, the physically disabled, and the deaf and hearing-impaired are among the most underserved communities for emergency services. For those with disabilities, simply communicating with 911 can be a struggle; with NG911, the deaf and hard-of-hearing can forgo relay services and simply text 911 directly.

**BEETRER SITUATIONAL AWARENESS**

An upgraded 911 system will provide law enforcement with a variety of new data — photos, video footage, text messages, GPS/location information, and more to provide better situational awareness, and to find and arrest a suspect more quickly. The information may also be used later as evidence in the prosecution of suspected criminals, as well as shared with other law enforcement and other agencies.
I am deaf and having chest pain. Help is on the way. Help! I'm in an alley at 4th and Main.

FIRE
INFRASTRUCTURE
EMS
TRANSPORTATION
NATIONAL RESPONSE

Citizen reports suspected drunk driver
Dispatch: A citizen sent this photo of a suspected DUI.
Here is a video of a robbery from my smart phone.
Dispatch: A witness just sent this video in.

NG911 for law enforcement
IMPROVED OFFICE SAFETY
in a hostage situation, information about the inside of an active crime scene is key for officer and hostage safety. Access to security cameras and building sensors will provide valuable information for increased officer safety, such as number of suspects, hostage location and more.

SAFE COMMUNITIES
Once law enforcement is able to easily and quickly process media like text messages and videos, citizens can more easily report crimes, enabling officers and deputies to respond more swiftly and efficiently. For example, a witness might capture a video of a robbery in progress and send it to 911; a call-taker immediately dispatches a unit to the scene.

REDUNDANCY & MULTI-AGENCY INTEROPERABILITY
During a natural disaster or other large-scale emergency, law enforcement and the public need to know their 911 system will be there. NG911 helps protect against call overload since the system can re-route calls and other data to alternative PSAPs. The underlying network also allows better coordination between different emergency services and other agencies to reach those in need.

INFOGRAPHIC BY FUNNEL INC.
**DO look to the future.**
For most, moving to NG911 will happen in phases, not all at once. So think first about laying the groundwork for the months and years to come. That’s what Black Hawk County, in Iowa, did. In the summer of 2009 they became the first in the country to launch a text-to-911 program.

How did this relatively small community of 130,000 do it when no one else had? “We purchased a new phone system in 2008 and we specifically wanted to make sure the system would grow with technology and accept NG911 technology,” says Judy Flores, director of the Black Hawk Consolidated Communications Center in Waterloo. When Black Hawk County was then approached by the state’s 911 director to lead a test pilot program for text-to-911, they were ready to go. “This opportunity was embedded in the phone system, so there were no additional costs to our county or our 911 service board,” adds Black Hawk County Sheriff Tony Thompson.

**DON’T think you can go it alone.**
In the current economic climate it’s daunting to bring up a brand-new priority — and then try to get stakeholders on board to make it happen. But it’s the only way to do it since law enforcement and other agencies simply won’t be able to afford an upgrade without combining resources with others who also need to upgrade, says emergency communications consultant David Jones, senior vice president and principle of Mission Critical Partners in Southlake, Texas.

That means talking to your local or state legislature, the state 911 director, other emergency services agencies like fire-rescue, ambulance and EMS, as well as the public. Jones stresses that NG911 still supports the fact that emergency services will always be delivered at the local level, but says that “regional and even state approaches may be more cost-effective.”

Jackie Mines had to first get her legislature on board about NG911. “You do constantly fight the perception that you don’t need it now,” says Mines, director of emergency communication networks for the Minnesota Department of Public Safety. She found support by collaborating with local associations and showing the legislature that Minnesota’s NG911 upgrade would help solve another problem they were concerned about. “It was really a win-win,” Mines recalls. “It’s time well-spent to get your stakeholders together and agree this is the right thing to do.”

**DO talk about the potential benefits of NG911.**
NG911 is so new and is largely a behind-the-scenes technical solution, so there typically isn’t much you can *show* when you’re trying to get stakeholders excited about upgrading. “We just deployed our first PSAP onto a Next Generation platform. We don’t have any whiz-bang technology [you can see] right now,” Mines explains. “But we’ve built an NG backbone and I can now transfer calls across the state with location information and telephone number. That wasn’t possible on an old network.”

Start by communicating the examples of NG911 benefits for law enforcement shown on pages 4 and 5, plus any benefits that may be specific to your particular agency.

**DON’T avoid conversations about technology.**
Most law enforcement leaders don’t spend a lot of time thinking about technology. But it’s key to gather stakeholders to discuss technical needs for NG911 early on, says George S. Rice Jr., executive director of the Industry Council for Emergency Response Technologies (iCERT), an industry association of companies that provide NG911 services and equipment. “You need to talk about what resources you have and what resources you need to go out and get,” he advises.
A transition as complex, big and costly as moving from the outdated telephony 911 system to NG911 can seem fraught with pitfalls. But with a little guidance from those who are already making the migration around the U.S., and those helping them to do it, you can identify and avoid potential mistakes and plan for a smooth, fast and cost-effective upgrade.

That likely means meeting with your state 911 director and/or your agency’s IT director. They will probably handle the actual technical migration and work with companies that sell the products that create your new system. But you’ll want to provide input so law enforcement’s needs are considered in the vendor solution chosen. “I would encourage [law enforcement] to educate themselves so that they can educate the public on the value of this technology,” stresses Thompson.

✔️ **DO talk to others who’ve made the transition.**

Talking to fellow police chiefs and sheriffs can be very useful, says Rice. “Speak with a peer who has already been part of an NG911 transition, whether in your region or 3,000 miles away,” he says. “You’ll understand where the pitfalls and needs are — that’s crucial to understanding the process.”


❌ **DON’T miss the chance to speak up about what your agency needs.**

The first technical step for NG911 is usually putting in place an Internet Protocol infrastructure, says Thomas Ginter, vice president of product management, safety and security for Telecommunication Systems, which routes 150 million 911 calls a year. Depending on your agency’s budget and needs, you may decide your priority is upgrading equipment with more cost-effective products that will work with next-gen technology. Or perhaps you want features like the ability to receive photos, better caller-location capabilities or updated Customer Premises Equipment (CPE) for your call-takers.

In short, the system you create should be specific to your needs, so you want to be part of the decisions process. “Next Generation is all about choices,” adds Ginter.

❌ **DON’T trust everyone who says they’re “Next-Gen-compliant.”**

The interest in NG911 is exploding — and so are the number of companies likely to be offering their services to you. “Companies will say they’re ‘Next Gen-compliant,’” Mines says, but it’s not always clear what that may mean. NG911 is so new that standards for these systems and for interoperability between systems are still being defined.

In fact, organizations like the Department of Transportation (DOT), the Transportation Safety Advancement Group (TSAG), NENA, the Association of Public-Safety Communications Officials International (APCO) and the Federal Communication Commission (FCC) are all involved in industry efforts to develop standards and make NG911 adoption easier and less costly.

✔️ **DO choose your NG911 vendors wisely.**

“It’s time well-spent to really interview Next Gen providers” before you ask for a request for proposal, says Mines, whose agency works closely with the Minnesota sheriffs’ association. One question to ask potential vendors: “When new features come out, will I be required to upgrade again?”

It’s worth remembering, too, that it’s still very early days for NG911 technology. “The ability even to text 911 is in its infancy,” says Jeff Olson, police chief of Cedar Falls, Iowa, part of the first text-to-911 program in the country.

In the end, it may be that the most important “do” for law enforcement is simply embracing that NG911 is here. “The younger generation is more apt to send a text than call,” says Olson. “We need to keep our communications methods current with mainstream use.”
The Money Question

Paying for Next Generation 911 may not be simple, but some states and local agencies are forging ahead anyway.

Now that you know more about what Next Generation 911 is and how it can benefit law enforcement, your next question is likely to be: What will NG911 cost my agency? A good question, but not one with an easy answer.

That said, there are three “big-ticket items” needed to make the transition: a new network (an ESInet or an Emergency Services IP network); updated Customer Premises Equipment (CPE) for call-takers to process 911 calls; and new NG911 hardware and software, which will operate with the ESInet, routing and managing each NG911 call. These “calls” come in the form of a text message, photo, video or phone call from a landline, cellphone or a computer (what’s called VoIP).

Depending on the system you choose and the size of your agency, upfront costs can range from hundreds of thousands of dollars to well into the millions. Senior vice president and principal of Mission Critical Partners, David Jones, says a ballpark figure for a major metropolitan area to move to NG911 is about $5–7 million. That doesn’t include CPE and other network costs which can add up to several million dollars over a multiyear period.

Black Hawk County in Iowa, which pioneered text-to-911 service, had already upgraded their phone system when they launched their NG911 trial, says Police Chief Jeff Olson of the Cedar Falls Police Department, adding that “the cost to install depends on the equipment you currently have and if you need to replace any of your equipment.”

As you explore an NG911 upgrade, don’t worry that there’s just one “right” way of approaching it. Next Generation 911 is still very new, and every day, state and local 911 authorities and law enforcement agencies are working together to decide what they need, which of course includes what they can afford.

How Do I Pay for NG911?
Most states and other areas pay for 911 services through surcharges on wired (landlines) and wireless lines. In some cases, prepaid wireless cards or a surcharge on VoIP subscribers also provide...
revenues. Fees and funding approaches vary a lot from state to state, so you'll want to start by finding out how your 911 system and PSAPs are paid for, if you don’t already know.

Also, look into how model legislation for NG911 can work for you; check with the National Conference of State Legislators (www.ncsl.org) and the National 911 Program (www.911.gov) for updates. Often, there are laws stipulating how 911 surcharges or grant funds can and cannot be used. In New York, for example, the law prohibits using state grant money for salaries, but agencies are allowed to use the money to train call-takers on CPE and computer-aided dispatch equipment.

Once you know how much money is coming in and how it may and may not be spent for a NG911 migration, you’ll need to size up the current funding model of your state, county or city, and the budget you have to work with. Start by asking yourself some key questions, suggests John Chiaramonte, a consultant with Booz Allen Hamilton and technical adviser to the National 911 Program who wrote an in-depth report on NG911 funding. These include: Will funding cover (existing and new) equipment? Will it cover maintenance? Will it cover operational expenses?

What will NG911 cost your agency?
Not an easy question to answer.
Will it cover training for staff? Will it cover replacement of the equipment?

Current funding in most parts of the U.S. won’t be enough to pay for the upgrades associated with NG911, says Jones. Another hurdle will be the need to maintain the current legacy 911 system through the transition, typically until all agencies in a state or region are linked.

Where to Start
First, keep in mind that you don’t need to take on your NG911 transition all at once. All transitions will start with a detailed plan, which may lead to a beta or test program. “Trials are really the only way to do it; you have to take baby steps,” notes Jones. A pilot program might include testing text-to-911 and, eventually, sending streaming video and photos. A test will give you a much better idea of how NG911 actually works for you and how to tailor your system to your specific needs. Trials for NG911 (also called “proof of concept” and sometimes “first office application”) are typically paid for the same way a full NG911 upgrade would be — through grants, 911 funds or other revenue dollars, or a combination of these.

3 Who’ve Done It

VERMONT: Vermont was one of the first states to put in place the initial components of a statewide NG911 system. Its project, which began in 1998, got unanimous support from the state’s 911 board and was created with the help of law enforcement; it will cost about $10 million through 2015.

Jim Lipinski, former IT manager of Vermont’s Enhanced 911, says that while that is a lot of money, it’s roughly the amount that would have been spent on a conventional 911 system anyway. “There was a $1.2 million bump in costs while we transitioned because we had to operate two systems at the same time, but the next generation system isn’t costing any more to operate,” he explains.

Vermont’s upgrade was paid for through the state Universal Service Fund, which is a 1.65 percent fee for 911, Lifeline and TTY services. This single statewide funding source meant local agencies didn’t have to come up with their own money.

NORTH CAROLINA: The city of Durham launched its pilot program to test SMS text messages to 911 in August 2011. Durham could do so because North Carolina had laid the groundwork with system upgrades several years earlier, says Richard Taylor, executive director of the North Carolina 911 Board; by 2008, all 128 of the state’s PSAPs were on the same wireless 911 system.

North Carolina had also streamlined funding with a single statewide 60-cent 911 fee for every telecommunications device, and the state’s 911 board worked with East Carolina University in Greenville to determine the actual costs of providing 911 service, and how much it would need to transition to NG911; the result was a 50 percent savings in expenses. The device fee, combined with state grants totaling $2.4 million, has allowed North Carolina to pay for its NG911 transition.

SALT LAKE COUNTY, UTAH: The county got a $37,000 state grant, plus $13,000 in state funding, to build a pilot IP network that ties landlines and wireless 911 trunks and creates a platform for NG911.

“We will have the ability to dynamically route circuits and use advanced functionality,” says William Harry, executive director of the Salt Lake Valley Emergency Communication Center, which supports a population of 850,000 and handles about 800,000 calls a year.
People & Organizations You Should Know

These resources can help you make the transition to Next Generation 911 more intelligently, easily and cost-effectively.

Your state 911 board, administrator or agency
Each 911 system is overseen by different agencies from state to state. Talk to the relevant organization or person in your area to find out how the current 911 system is funded and if the monies can be spent on Next Generation 911 (NG911), as well as whether outside funds can be used. Many areas are using state and federal grants to finance their transition. The National Association of State 9-1-1 Administrators’ member list (www.nasna911.org/members.php) can be useful in finding the right person to talk to.

Your local PSAP staff or call center director or administrator
Since these are the people who receive the calls and, eventually, the text messages, photos and videos, it’s imperative that their needs and experience are represented and that you coordinate your migration with them.

911 Resource Center
A source for technical and operational assistance for 911 services, this center tracks the progress of 911 across the U.S. (www.911.gov, click Resource Center link).

The National 911 Program
This is a Congressionally appointed program that coordinates federal help in supporting and promoting optimal 911 services nationwide (www.911.gov). Visit the website to access the “State of 911” webinar series and to download a digital copy of this publication.

The Association of Public-Safety Communication Officials International (APCO)
APCO International is the world's largest organization of public safety communications professionals. It serves the needs of public safety communications practitioners worldwide — and the welfare of the public — by providing expertise, professional development, technical assistance, advocacy and outreach (www.apcointl.org).

National Emergency Number Association (NENA)
NENA is a leading industry group of 911 call center supervisors, managers and administrators, and vendors devoted to 911 policy, technology, operations and education issues (www.nena.org).

National Association of State 911 Administrators (NASNA)
This is a good resource for identifying states with a dedicated 911 emergency system program manager and for information about issues related to implementing and maintaining an NG911 system (www.nasna911.org).

Research & Innovative Technology Administration (RITA)
RITA’s Joint Program Office (JPO) in the U.S. Department of Transportation supports the development of technologies that enable transformative change, envisioning a system in which highway crashes are rare because vehicles recognize and communicate surrounding hazards. Supporting that is a fully connected, information-rich environment giving emergency responders real-time information, increasing safety, efficiency and effectiveness. The JPO created an NG911 Procurement Toolkit, a collection of resources to assist in the transition to NG911 (www.its.dot.gov/ng911).

International Association of Chiefs of Police (IACP) and the National Sheriffs’ Association (NSA)
These two leading law enforcement organizations are addressing law enforcement’s important role in the development and adoption of NG911. For more information about resources from IACP, visit their website (www.theiacp.org) or contact David Roberts (roberts@theiacp.org). To reach NSA (www.sheriffs.org), contact Edward Hutchison (ehutchison@sheriffs.org). ⭐
The Denco Area 9-1-1 District, located north of Dallas, provides 911 service for Denton County, one of the most populous counties in Texas, and to the entire city of Carrollton. Led by executive director Mark Payne, the district supports 11 PSAPs and serves a population of about 662,000 across 34 communities.

In late 2010, Denco began upgrading its emergency communications system to NG911 technologies.

**Why did the Denco 9-1-1 District decide to make the upgrade to NG911?**

**Payne:** The time had come to begin replacing our 10-plus-year-old 911 equipment and network. Given the approximate 10-year life cycle for most equipment replacement, and the impending release of NG911 standards, it seemed most prudent to begin our migration to Internet Protocol (IP)-based systems and network immediately.

Had we chosen to wait for standards to develop completely, we would have wasted precious years, which would mean later delays in our ability to deliver next-generation features such as advanced texting, pictures, video, telecommunications and the like, once they became available.

Our board believed it was our responsibility to be ready to deploy potentially life-saving NG911 features as soon as possible after their release into the marketplace.

**What lessons have you learned so far?**

**Payne:** Make sure your equipment and network requirements with vendors are very specific; things that may seem straightforward enough can become points of contention after the contract has been negotiated and signed. Fully investigate vendor references and, whenever possible, visit one or more reference sites to see the equipment or solution firsthand so you can watch the call-takers using the system and make time to talk with them about their likes and dislikes.

I would also recommend involving your call-takers or dispatchers in the development phase of the request for proposal (RFP) as well as participating in the vendor demonstrations.

Also helpful: Include key personnel from neighboring jurisdictions on your proposal evaluation team. Emergency services agencies, including law enforcement, will need to interoperate with other emergency services agencies through their future NG911 system.

What advice would you give to someone in law enforcement who’s considering an upgrade to their 911 system?

**Payne:** There can be a lot of ‘new territory’ as you move toward NG911, so be prepared for the occasional setback and plan for the project to take longer than you or your vendor may have hoped. Make sure the vendor you select has a detailed plan for interconnecting with all telecommunication service providers, databases and neighboring 911 networks.

Unless your agency has significant technical expertise in NG911-related technologies, bringing in qualified outside consultants to help in the development of your RFP document and during the vendor proposal evaluation phase, can improve the quality of proposals you receive; a good consulting firm can bring many different types of technical expertise and practical experience to your project.

I think the role of law enforcement in this process is to prepare for the new types of information NG911 will bring — video, text, photo and beyond — and to be prepared to store, protect and retrieve any call-related information as needed.

For more information about the Denco Area 9-1-1 District, visit www.denco.org.
The simple truth is that every law enforcement agency, working with its state or regional 911 authority, will handle its migration to NG911 a bit differently. The process can seem daunting, especially to police chiefs and sheriffs who are already pressed for time, but this checklist can help kick things off:

- **Call a meeting with your internal technology team.** If you’re not already working with the team at your agency’s PSAP or emergency communications department, this is an ideal time to get to know them better; they can be invaluable partners in making the upgrade. Start by asking about the state of your PSAPs, including staffing, funding and technology.

- **Find out if there’s a state agency that manages your state’s NG911 system.** If so, set up a meeting with the director. Some states have 911 boards or authorities, some have 911 agencies, while some have both. Start a conversation with all the stakeholders in your area, including PSAPs, telephony or broadband carriers, EMS, fire-rescue, transportation agencies and others. If a state or regional plan is already underway, get up to speed on what’s being planned.

- **Research how your city, county or state currently funds 911 services.** In addition to 911 surcharge fees, state and federal grants may be available to help pay for NG911; check with the National 911 Program (www.911.gov). You can also talk to your law enforcement colleagues in neighboring cities, counties and regions; many agencies are making the migration to NG911 faster by working together, which also saves money when they share equipment, staff and other resources.

- **Tap into industry groups and government agencies.** Several key organizations have created resources that will help law enforcement. The National Emergency Number Association (NENA; www.nena.org) and the Association of Public-Safety Communications Officials (APCO; www.apco911.org) are prominent industry groups that provide training and information on NG911. Also, read the “Next Generation 9-1-1 Transition Policy Implementation Guidebook,” published by NENA, and check out the 911 Resource Center (www.911.gov, click Resource Center link).