

2016 Funding and Sustainment Methods

State	Category	Method	Intended Impact
TX	LMR to LTE Upgrades	City of Houston Collaboration Leads to Innovative Solution for First Responders Houston, Texas recently deployed a pilot project to demonstrate the ability of datacasting to support public safety communications in an operational environment. The pilot project included a number of agencies and organizations working in partnership with KUHT-TV to test and evaluate the use of existing broadcast television spectrum to deliver video and other proprietary data efficiently. The need to deliver data, especially video, to multiple users in the field is increasing and public safety networks are struggling to keep up. Broadcast television has an almost 80 year history of optimizing its wireless delivery network for coverage, resilience and reliability. In addition to the ability to broadcast, television stations are connectivity hubs with extensive content management expertise, vertical real estate assets and other capabilities that are valuable to public safety. New technology called datacasting bridges these two worlds allowing television broadcast signals to deliver secure encrypted and targetable video and other data to first responders.	The pilot project in Houston demonstrated both the technical capabilities of datacasting (coverage, video quality, integration, ease of use) as well as its applicability for improving day-to-day public safety information sharing. In addition, the project showcased how public-private partnerships can be leveraged to address growing content delivery needs.
FL	LMR System Replacement	County to update radio system In Pasco County, Florida commissioners heard residents loud and clear when they complained the county's 26-year-old radio system was no longer adequate. The Pasco County commissioners have approved a \$14.5 million contract with Williams Communications Inc. to overhaul the county's public safety communications system. The county will borrow the \$14.5 million from its general fund and pay it back using the Penny for Pasco 1 percent sales tax approved by voters in 2012.	The county is leveraging a 1 percent sales tax to pay for \$14.5M in improvements to their radio system. The new system will allow the county to expand radio coverage and seamless communication among all county agencies.
MI	LMR System Upgrades	Grand Traverse County first responders prepare for communication upgrades Grand Traverse County, Michigan will soon be using the Michigan Public Safety Communication System. The statewide system helps provide better communication among first responders during emergencies and connects around 1,500 hundred state, local, tribal, federal and private public safety agencies. The change was made possible through a 2014 Grand Traverse County surcharge to 9-1-1 services, along with several state efforts aimed at keeping costs to use the system down.	The statewide system will not only allow for communication on the same channel between state, local, tribal and federal agencies in the county, but it will also let them talk with agencies on the outside.

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NE	LMR/9-1-1 System Sharing	<p>City will save money on 911 radio system sharing with state</p> <p>Lincoln, Nebraska will save more than \$570,000 through an arrangement with the state to share emergency radio system assets. The city will operate its new 911 radio system using the state computer core and will be able to use the statewide radio system for communication, which will be particularly helpful in rural parts of the county. In return, the state will be able to use the city's new radio system, which offers better communication service inside the urban area. This is a straight-across exchange. No money will change hands. The city's ability to use the state computer core will save some money now and more down the road since the city will not have to buy the core or pay for maintenance in five to 10 years.</p> <p>In addition, the city is also looking at locations and design for the three fire stations and a co-located police/fire station to be built with revenue from the quarter-cent sales tax. City voters approved a three-year, quarter-cent hike in the city sales tax to pay for the stations and its new radio system. The revenue has been coming in as expected, at about \$1 million a month</p>	This example showcases both the benefits of sharing systems and implementing a tax.
MD	LMR System Upgrades	<p>Ocean City purchases new radio for \$5.4M After months of negotiations, the Ocean City Council in Ocean City, Maryland has signed a \$5.4 million contract to replace its decades-old radio system. According to officials, the radio upgrade languished for three years in the unfunded projects category until the manufacturer announced it would no longer be providing parts for the system by 2018. Funding for the radio system will be covered through a combination of a 10-year capital lease (for the equipment) and using revenue from radio antenna rentals. The antenna rentals will generate an estimated \$819,000 by the end of the year. The antenna rentals will pay for the five percent down [payment] and the lease payments for fiscal year 2017. Each year after that, there would be about \$400,000 for lease payments (because the radios were purchased in the first year).</p>	This is an example of how some counties are leveraging multiple sources of financing and funding streams to pay for radio system upgrades. In this case, Ocean City is leasing equipment and using rental fees from antennas to help pay for its new radio system.

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IA	LMR System Upgrades	Iowa Legislature patches 'holes' in emergency communications network Iowa lawmakers have agreed to a \$68 million patch for “holes” in a statewide communications network so law enforcement, firefighters, and other emergency responders will be able to talk to one another. The House, Senate and Gov. Terry Branstad’s office have reached an agreement on the \$68 million, 10-year lease-to-own package that is expected to take three years to build out. Local agencies — fire departments and emergency medical services — will be able to use the statewide system without charge, but will have to buy their own radio equipment. The system will be financed by a \$1-a-month surcharge paid by cellphone users.	The example demonstrates how states are leveraging multiple sources of funding to pay for radio systems. In this case, the Iowa legislature has agreed to a 10-year lease-to-own agreement. In addition, they are leveraging charges on cellphone users to fund public safety radio system. Further, in this case, public safety agencies would not be charged to use the system, but would have to purchase their own radios.
TX	LMR System Upgrades	Police radios get big upgrade The \$1.5 million upgrade to Texarkana, Texas' public safety radio system is slated for completion August 1, 2016. The new system is part of the Texas Department of Public Safety system linking city and state communication services. The upgraded system will also connect directly to the Arkansas Wireless Information Network. The much-needed upgrade will be the first in 15 years and will make communications more reliable.	The biggest benefit from the upgrade will be the option to seamlessly switch over to Arkansas’ system should Texas’ system go down, or vice versa. This will also relieve the taxpayers of the full burden of outfitting a new radio tower.
IA	LMR System Upgrades	Western suburbs first to connect to statewide emergency radio system Des Moines, Iowa’s western suburbs are the first in Iowa to hook up their shared emergency communication center to a radio system that connects first-responders statewide. A bill approving the Statewide Interoperable Communications System was signed by Gov. Terry Branstad in early May. The \$58 million system should be fully built in two years. Cities and counties can decide whether they want to connect.	First-responders in connected cities can now communicate with their dispatch centers no matter where they are in Iowa. The system is expected to create savings on equipment maintenance costs. The \$58M system will be funded over a two year period.

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NJ	LMR System Upgrades	Millville police to replace outdated radios The city of Millville, New Jersey is working to replace its police communications system this year. The plan includes installing new equipment from headquarters down to the personal radios officers use when out of their cruiser. The City Commission introduced a bond ordinance that will raise \$825,000 for the project. The \$825,000 will buy a dispatching system, cruiser radios, and personal radios. The bond ordinance, which had its public hearing on July 19, 2016, will raise \$950,000 with the difference applied to vehicle purchases for firefighters. The city will take \$50,000 out of its capital budget as a down payment on the bond.	This examples showcases the benefits of utilizing bonds.
VA	LMR System Upgrade	City Unveils New Public Safety Radio System Fredericksburg, Virginia police, fire, rescue and sheriff's department staff members can now communicate better with each other and with other jurisdictions, thanks to a public safety radio system upgrade and partnership with Stafford County. The city's outdated 1970s system was no longer providing adequate coverage, despite upgrades through the years. Based on consultant studies and staff recommendations, City Council voted last year to join Stafford County's fully operational and up-to-date system. The new system has more channels, which increases capacity within each group, or when joint communication is required during an incident or special event. The additional capacity also enables better communication with other jurisdictions. The city purchased the system for \$2,765,000, which included \$54,000 for the study. The city spent \$2,711,000 on a contract with Motorola to upgrade the city's public safety communications system. The project was funded with \$2.025 million of bond proceeds and local revenues. The Fiscal Year (FY) 2017 budget includes \$298,000 for operation of the system, including \$258,000 to Stafford County for system management. In future years, annual operating budget costs will include the Stafford management contract, maintenance and other operation costs.	In addition to providing stronger radio coverage, the new system enables Fredericksburg emergency services staff, including fire, police, rescue and sheriff, to communicate directly with each other, rather than by relay through the 9-1-1 call center.
VA	LMR Radio Upgrade	New radios cut through background noise for first responders in Virginia Beach Firefighters arrived at a self-storage building on a recent morning to heavy smoke and fire. They used power saws to cut through doors. Water whooshed through the fire hoses. In the past, it would have been hard to understand firefighters when they requested more water and pressure on the hoses. Recently, the Fire Department and all city first-responders began using new radios to filter out background noise. The equipment has new beneficial technological features.	This is an example of a City investing \$13M in radios (nothing else); the goal of this investment was to increase voice quality. The radios were \$3900 each.

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TX	LMR Radio Upgrade	Answering the call: Police, fire radios go digital If all goes as planned, area police and firefighters may soon be going digital. Digital radios, that is. The upgrade to digital will replace radios that serve the City of Amarillo as well as Potter and Randall counties in Texas. The new system is expected to give first responders better coverage. The new system will take roughly 18 months to complete.	Digital radios will decrease the number of dead spots and make it harder for the public to interfere with radio signals.
TN/GA	LMR Build-Out	New radio tower goes up in Whitfield County to improve emergency communications If a police officer needs help in Whitfield County, they don't always know if someone will answer. A new radio tower is trying to solve the problem of spotty-service. Thursday, crews put up a massive new radio tower at the Whitfield County 911 center, bringing Whitfield County emergency responders one step closer to communicating across county lines with their radios. The current system is more than 40 years old. The new tower will allow Whitfield County to join the Tennessee Valley Radio system for a total cost of about \$12 million dollars.	Whitfield County installed a radio in July 2016, which allows them to connect to the Tennessee Valley system.
MT	LMR Radios	Gallatin Co. 911 upgrades radio system Gallatin County dispatch has been working to find a cost-efficient way to solve its communication problems. The current radio system has holes in its coverage and does not always work for police officers. Work will now begin to upgrade the radios. For dispatchers, their responsibility to keep the public and emergency responders safe can be tricky when communications cut in and out. Currently, dispatchers will wait a certain period of time after losing communication during a call. It can be stressful for dispatchers when they are unable to get back on the call with an officer. The County is upgrading its radio system and radios (800MHz).	This article talks to communication problems between 9-1-1 dispatch and officers, due to in-building coverage issues and lost calls. The County is moving toward VHF and purchasing 800 MHz radios to improve coverage and voice quality.
ND	LMR Radios	Replacing radios In Stutsman County, local law enforcement agencies are facing a crisis of having to replace all of the emergency response radios in the county and city. Roughly a decade ago, Department of Homeland Security grants were used to purchase radios for numerous agencies. Those radios are now almost completely obsolete and will need to be replaced before the end of 2018. The cost to replace the radios could amount to more than \$400,000 over the next two years. Cost estimates are still preliminary as the final specifications for the radios are not available.	Interesting article on life cycle – with PSIC and other homeland security grants, counties invested a lot of money in radios and radio systems. Now they are all nearing end of life cycle at the same time, and need to be replaced.

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NC	New LMR Radio System	<p>New radio system boosts town's communication efficiency Mooresville, North Carolina has finally transitioned off a 12-year-old outdated communications system through its partnership with Charlotte's Regional Radio System. The deployment of the new communications systems was staggered over the course of two years. Roughly 500 radios were replaced or upgraded. During the fall of 2015, Mooresville commissioners approved spending \$1.3 million to replace the previous trunking radio system.</p> <p>The Mooresville fire department had previously sought to apply for grant funding to help fund the replacement; however, it was not successful. The system overhaul replaced all of the consoles for the police department and added an additional radio console to the department. Additionally, all repeaters and tower site equipment were replaced and a new microwave data hop from the police department to the tower site was put in place. Through the Urban Area Security Initiative system upgrade with Charlotte via the use of its master site and maintenance capabilities, approximately \$225,000 will be paid to them to utilize the system, which includes upgrades every two years and maintenance of the equipment. Town commissioners approved the agreement on July 5, 2016; it includes maintenance, repair, and advanced replacement of infrastructure to maintain the radio system and its components for all town departments.</p>	<p>This is a good example of a town linking to a regional system to save money. Town of Mooresville partnered with Charlotte UASI Regional Radio System to replace their 12-year old system. Mooresville officials approved \$1.3M for the new system which includes new consoles, repeaters, and tower site equipment. Mooresville will pay Charlotte \$225,000 to utilize their regional system, which includes upgrade and M&O, and replacement of infrastructure to serve all town departments (Public Works, Police, Fire-Rescue).</p>
TX	New Communications Tower	<p>New tower bolsters emergency communications in Bastrop County Communication during emergencies in Bastrop County was significantly improved after the construction of a 450-foot communications tower in Smithville. The U.S. Department of Housing and Urban Development funded the \$2.6 million project through its Community Development Block Grant Disaster Recovery Program. The Texas General Land Office kicked in \$200,000 from the state administration budget to help with the project. Emergency radio communications were crippled during the 2011 Bastrop County Complex Fire due to lack of aerial coverage in the eastern stretches of the county and lack of sufficient system channels to handle the increased radio traffic and outdated radio system. The new tower will facilitate effective communication during catastrophes.</p>	<p>The tower will serve three main functions: provide complete coverage of radio systems throughout the county, connect the county with the Capital Area Regional Radio System and link the county with regional radio systems in Houston and Galveston.</p>

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IA	New Emergency Communications System	Iowa County supervisors approve new emergency radio system Iowa County supervisors approved a new emergency communications system for the county. By a 5-0 vote, board members approved the \$4.2 million countywide 800 MHz trunked system. The solution will migrate Iowa County's public safety system from VHF analog conventional to 700/800 P25 trunked communications that will be integrated with the existing P25 regional network. The board approved two related motions connected with this project, including: 1) Appointing a radio governance board. On that board are Garringer, Rotter, Hall, Humphrey and Rabe and 2) setting a public hearing for issuing essential purpose bonds, in the amount of \$4.2 million.	The improved interconnectivity will allow seamless interoperability between 15,000 first responders in Iowa.
OH	LMR Spectrum Sharing with Energy Group (Utilities)	Ohio MARCS to Share 700/800 MHz Spectrum with FirstEnergy The FCC granted a waiver request from the state of Ohio through the Ohio Multi-Agency Radio Communications System (MARCS) program and three electric utilities in Ohio, all wholly owned subsidiaries of FirstEnergy, for use of MARCS' 800 MHz and 700 MHz public-safety frequencies. The waiver allows FirstEnergy's use of MARCS' 800 MHz as specified by the application. With regard to the converse question — MARCS' use of 800 MHz business/industrial land transportation (B/ILT) spectrum — the FCC said the rules permit FirstEnergy to share its 800 MHz facilities with MARCS, so that portion of the waiver request was unnecessary and dismissed as moot.	Sharing infrastructure across sectors enables greater coordination during response, and saves money.
WA	LMR Equipment Upgrades	Valley and county to get modern emergency communications Methow Valley, WA is almost finished replacing its emergency communications equipment. Once completed, the system will use microwave transmission instead of the existing system, which relies on physical wires that run underground, across bridges or in the air. The microwave network will send audio signals and data from one side of the county to the other. A second phase of the project, which won't be finished until next year, will allow the county to re-route emergency telephone circuits if needed so that 911 calls can still reach the dispatch center. The \$3-million project is being paid for primarily through grants. The majority of that — \$1.85 million — is from the Washington State Military Department disaster recovery account. The McClure upgrades are supported by a \$400,000 grant from the Washington Department of Commerce. The remainder is from an Okanogan County Sheriff's Department reserve fund and from WSDOT.	The new technology will give emergency managers the capacity to monitor all functions.

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NE	9-1-1 Operations & Improvements	Motorola Solutions updates Nebraska call system Douglas County, Nebraska, officials were faced with the same public safety communications challenges as many other communities across the country -- how to do more with fewer resources while efficiently using taxpayer dollars. When it came time to replace an old 9-1-1 computer-aided dispatch system that handles approximately 600,000 calls each year, Douglas County chose to have Schaumburg-based Motorola Solutions' PremierOne CAD deployed on a virtual platform, allowing dispatchers simple access to centrally shared resources, saving time and money.	A virtual platform centralizes the dispatch system hardware and software resources, creating virtual workstations within the dispatch center where all existing dispatch positions can use the same resources. This resulted in a 67 percent reduction in equipment costs for Douglas County.
NM	9-1-1 Operations & Improvements	New 911 Center Enters Final Stretch Construction of a new, \$8.25 million 911 call center, which will serve residents throughout Doña Ana County, New Mexico has entered the final stretch. Of the \$8.25 million in funds for the project, about \$6 million stemmed from a general obligation bond approved by county voters. The rest came from a state legislative appropriation. But in addition to the \$8.25 million, the overall project benefited from another \$1.25 million — \$900,000 for the 911 phone system and \$350,000 for dispatch furniture — that came from a separate pool of state funding that pays for periodic upgrades to 911 equipment.	The new 9-1-1 center will improve communications between public safety personnel and agencies, law enforcement, and community residents. The system was paid for by a state bond (\$8.25M) and from a state 911 funding pool (\$1.25M).
MI	9-1-1 Operations & Improvements	Ingham County launches new 911 service Ingham County, Michigan announced families' names, addresses, health conditions and medications can be immediately available to 911 dispatchers through a voluntary service. Smart911 allows residents to upload their information to save time, and in some cases lives, by creating a free profile at http://www.smart911.com . The program will cost about \$17,000 a year and will be paid for through existing 911 center millage dollars and 911 fees on phone bills. The program will not cause a 911 fee increase on phone bills.	The service will help to save time, and improve (medical) response. It appears that this county has some sort of tax set aside for its 9-1-1 center, AND fees on phone bills, that will cover this new service.
TN	9-1-1 Operations & Improvements	New Blount County 911 dispatch system goes live In Tennessee, Blount County's Communications Center went live with its new computer-assisted dispatch system. In November 2015, the County Commission approved a \$579,064 expenditure for the Blount County Sheriff's Office to purchase a new records management system. Most of the cost, \$479,064, came out of dedicated information technology reserves that are funded through court fees, plus \$100,000 that had been approved by the E-911 Board. The BCSO is asking the Blount County Commission to consider approving some supplemental requests for complementary technology to the system in the 2016-2017 budget.	The CAD upgrade was paid from a technology reserve funded through court fees, and from their E-911 Board. This demonstrates the combined funding solution again – using multiple sources to fund upgrades.

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OK	9-1-1 Operations & Improvements	Muskogee, Adair counties work on sharing 911 system Two counties in Oklahoma – Muskogee and Adair counties – are sharing a 9-1-1 system. Muskogee City/County Enhanced 911 Trust Authority approved a \$1.96 million budget for the 2016-2017 fiscal year. This represents a 7.25 percent decrease from the previous year's approved budget of \$2.1 million. The decrease stems from a loss of revenue due to reduced receipt of fees from landline users. To compensate, Muskogee entered into a cooperative agreement with Adair County that would allow Adair County to use Muskogee's backend equipment (i.e., their servers) for a fee. This helps Adair County, because their system is out of date (they cannot even get a maintenance contract on it), and they cannot afford the upgrade; the agreement is said to save Adair \$100,000 over five years. The agreement will help Muskogee as it allows them to increase their revenue \$500 per month, and close budget gaps stemming from the loss of revenues from landline phones. To further reduce annual costs, Muskogee E911 Trust Authority approved loan refinancing, which would extend the term on their current loan of \$1.6 million to pay it off in 2019, rather than 2017.	This shows the cost savings from combining 9-1-1 services, the creative approach that counties use to close budget gaps caused by a reducing number of landline users, and the multiple approaches that counties take (e.g., extending term on loan to reduce costs) to sustain services. Due to budget constraints, many counties are starting to partner with nearby counties to upgrade their systems in addition to finding other ways to offset costs.
WA	9-1-1 Operations & Improvements	Skagit 911 Funding Plan Will Help Fund Infrastructure Skagit County, Washington's new funding plan, Skagit 911, will provide an increase in funding for the county's emergency dispatch center to help replace outdated equipment and infrastructure. Under the new funding plan, Skagit 911 will save 5 percent of its tax revenue for reserves and capital improvements; and, it will no longer charge local law enforcement agencies based on call volume alone, but also on the number of officers or deputies the agencies employ. Many police agencies will face fee increases of about 20 percent. Payments from fire agencies will be based on call volume, as well as the property value of the area they serve. The Skagit County Department of Emergency Management will pay for ambulance calls up front, instead of refunding agencies the way it does now.	This example showcases how some counties are increasing user fees to the cover the costs of upgrades and maintenance.
PA	9-1-1 Operations & Improvements	Somerset Co. 911 system gets upgrade Somerset County 911 installed a new \$8.2M system that will allow first responders to communicate directly and across county lines with ease. The cost of the new system will be paid for by tax payers, with a portion of the funds coming from the 911 emergency surcharge applied to phone bills. The new system is an upgrade to the original system that has been in place since the 1970s.	This example showcases how some counties are using multiple sources of funding to cover the costs of upgrades.

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NY	9-1-1 Operations & Improvements	Albany, Rensselaer, Saratoga counties cooperate on 911 system Albany, Rensselaer and Saratoga counties in New York will cooperate on a new, shared \$5.5 million dispatch system that will reduce costs and increase information to responders. Police and EMS departments also will share a records management system, enabling police, firefighters and EMS crews to share information that includes routes to scenes and locations of fire hydrants. Once installed by late 2017, the system would not only provide more information, it will enable participating governments to reduce their costs for maintaining the system by sharing it. Albany County saves \$1 million by eliminating multiple systems and the county will save another \$200,000 in annual costs for maintaining the system. Rensselaer County will save \$500,000 a year. Saratoga County will save \$150,000 a year. By using the same system, 911 dispatchers can receive calls from each county as well as local police, fire departments and EMS crews within the counties. Dispatchers also can be cross-trained to back each other up. The new system will not reduce staffing.	The shared system will enable real-time sharing of data across municipal and county lines. The new dispatch system will also consolidate multiple systems across the three counties, resulting in significant cost savings.
MO	9-1-1 Operations & Improvements	Lawrence County 911 Center Gets Upgrades Lawrence County, Missouri completed upgrades to its 911 system. Operators can now see an individual's exact location on a map when calling from a cell phone. Administrators said text-to-911 will also be available soon. The center is currently testing that feature with cell phone providers. The upgrades came at a cost of \$230,000.	Being able to accurately pinpoint an individual calling 911 for help will save time and lives.
OK	9-1-1 Service Delivery	House vote to reform state's 911 system cheered In Oklahoma, House Bill 3126, authored by Rep. Josh Cockroft (R-Wanette), increases the transparency and accountability for 911 fees and provides state coordination for improved 911 service delivery. The measure also replaces the funding that has been lost due to the drop in the use of landline phones with an increase to the individual 911 fee on each cellular contract. That fee would increase from 50 cents to 75 cents and is estimated to result in approximately \$28 million. The measure still has to be considered by the Senate.	9-1-1 is a critical public safety service. This bill should alleviate funding issues due to the decrease in the use of landline phones and increase the accountability of the current use of revenues.

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MI	9-1-1 Operations & Improvements	<p>Allegan County 911 Will Spend up to \$10 Million on New System Allegan County, Michigan's Central Dispatch is looking to spend as much as \$10 million on a new radio system over the next year. The current system was installed in 2001 and is due for a replacement. A new system would replace equipment on local radio towers, in the dispatch offices and on the officers and emergency personnel all throughout the county. Ten law-enforcement agencies rely on Allegan County Central Dispatch, as well as 20 fire departments and five EMS agencies. The \$8-10 million price tag will be footed through the dispatch's phone bill surcharge. Allegan County residents pay \$3 per device on each monthly phone bill to fund Central Dispatch's operations and capital improvement. The new system will last around 15 years. Vendors advertise 20-plus years, Ludwig said, but the technology will probably run its course quicker than that.</p>	<p>This county is replacing its 15 year-old central dispatch. The funds are being raised through a \$3 phone bill surcharge, which appears to fund both capital and operational costs. One interesting note: the article mentions the vendors project the system to last 20+ years, but the county believes it will only last 15 years or less, due to the pace of emerging technologies.</p>
OH	9-1-1 Operations & Improvements	<p>Ohio Cities Resist Transition to Statewide 911 Dispatch In Warren County, Ohio communities are resisting efforts to create a statewide emergency dispatch network, despite the potential to save millions in taxpayer money. The issue has divided communities and local officials around the state. Franklin and Lebanon City are the final holdouts in the county. In March, Lebanon City Council spent \$135,000 to update computer programming supporting its system, rather than sign on with Warren County, which signed a \$1.8 million contract in January for software computer-aided dispatch, records keeping and records management. Warren County funds its center with sales tax, in particular on the sale of new cars and trucks from the auto mall along the county line. Lebanon, struggling to fund street repairs, has no such surplus.</p> <p>The county commissioners have directed the county's director of emergency services to reconvene a committee established to deal with the state changes and divvy up the cell phone funds of \$433,272 last year. Currently Franklin and Lebanon each get 25 percent \$108,318, leaving the rest, \$216,636 for the county. However, the director of emergency services has found support on the board for cutting the shares going to Lebanon and Franklin, possibly urging the cities to join the county.</p>	<p>This article discusses the options state and local agencies are facing during consolidation of dispatch. The Lebanon City Council spent \$135,000 to update software rather than sign on to the statewide system which cost one neighboring county \$1.8M. The article points out Warren County leverages sales tax from new cars and trucks to supplement local budgets. Warren County is using its funds from the tax to pay for this upgrade, while the cities are not (i.e., they are spending those funds on other pressing projects – roads).</p>

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TX	9-1-1 Operations & Improvements	New 911 Dispatch Center Opens in Cameron Co. Cell phone service fees charged for 9-1-1 use helped pay for a new center for the Cameron County, Texas Emergency Communications District. The facility is a multiuse center. It will serve as a training site for dispatchers, who are the first line of defense when a 9-1-1 call is received and a means of gathering so dispatchers can stay current on technology.	This example showcases the benefits of 9-1-1 fees.
IL	Consolidation of 9-1-1 Dispatch Center	<p>O'Fallon, Fairview Heights move forward with joint police dispatch center</p> <p>The O'Fallon City Council in Illinois approved an intergovernmental agreement with Fairview Heights to establish an O'Fallon-Fairview Heights Communications Center. Under a state mandate, St. Clair and Madison counties must reduce the number of its public safety answering points, or PSAPs, in half.</p> <p>O'Fallon appropriated \$250,000 in June to equip the new center and update the current building. The new expanded center will be able to accommodate up to six telecommunicators. According to the agreement, O'Fallon will cover 55 percent of the cost to operate the center, and Fairview Heights will cover 45 percent. This cost breakdown was determined by the number of calls each city receives. The agreement also states the individuals employed as telecommunicators in a full-time position in Fairview Heights would be offered the opportunity to be hired as full-time telecommunicators with O'Fallon as a part of the 911 consolidation process.</p>	The consolidation will save lives by improving call processing time which reduces response time to emergency incidents
CO	Consolidation of 9-1-1 Dispatch between County and City	El Paso County, Fountain create joint 911 dispatch center In an effort to cut down on emergency response time, the El Paso County Sheriff's Office and the city of Fountain has teamed up on a joint dispatch center for 9-1-1 calls. The service began Monday. In the past, Sheriff Bill Elder said some 9-1-1 calls bounced from one dispatch center to another before they landed with the appropriate dispatcher. Now, Fountain and Sheriff's Office dispatchers will work together in one place.	This example shows consolidation of 9-1-1 centers to improve response times; that will also likely result in cost savings as well.

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WI	9-1-1 System Expansion	<p>Improved 911 would hike county residents' costs</p> <p>For the fourth straight year, Brown County, Wisconsin residents are being asked to pay more for 911 services. Taxpayers are being asked to increase their payment for public-safety communications by \$279,000, to \$6.7 million. The increase amounts to about \$1.08 per county resident. Rising maintenance costs are increasing the overall cost of the system, which enables a team of dispatchers to field emergency calls from people in the county and send firefighters, paramedics and police to their aid.</p> <p>The cost to taxpayers has risen 21 percent since the county replaced an aging radio system with a \$15 million system about five years ago, growing from \$5.5 million to almost \$6.7 million. While the previous radio system required \$60,000 to \$100,000 in annual maintenance, the new one costs the county more than \$700,000 per year.</p> <p>Leaders plan to expand the system in late 2016 or early 2017, adding a text-to-911 feature and a new computer-aided dispatch system.</p>	The benefits have been significant, including providing firefighters and police with a virtually unlimited number of channels with which to handle major events from Green Bay Packers games to the Tall Ships festival — without interfering with standard police radio traffic.
OH	NG911 Operations & Improvements	<p>911, what's your emergency?: Police, sheriff launch next generation 911</p> <p>The next generation of 9-1-1 launched in Sidney and Shelby County, Ohio. The \$429,327.85 cost of the system has been divided up equally between four agencies, including Sidney Police, Shelby County Sheriff, Bellefontaine Police and Logan County Sheriff. Each agency was able to save approximately \$150,000 each by purchasing it as one entity. This has resulted in a huge savings to the taxpayers. Additionally, with the ability to link out in four areas, the counties now have a 20-25 mile range versus the previous 2 mile range. Furthermore, if the system goes down in one area another agency can step in as needed. Funding for Sidney's upgrade has come from the 9-1-1 surcharge, which is placed on all cell phones, and the department's "rainy day" fund. It took most of the agencies between four to five years to save up for the new system.</p>	By joining forces to upgrade to a new 9-1-1 system both counties experienced great savings.
NY	NG911 Operations & Improvements	<p>Rockland's new 911 system should mean quicker responses</p> <p>Rockland County, NY has almost completed a \$1.8 million overhaul to its aging analog system installed in 1993. The Next Generation 9-1-1 systems allows the county to handle emergency calls and texts and, eventually, photos and video. The county is financing the project, mostly through a portion of the \$1.2 million in 9-1-1 surcharge fees it collects annually. More money will come in the form of state grants like the \$227,942 in funds Rockland received from the state Division of Homeland Security and Emergency Services.</p>	This example showcases the benefits of 911 surcharge fees and how using multiple sources of funding to cover the costs of upgrades.

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State	Category	Method	Intended Impact
CA	NG911 Operations & Improvements	5 California Municipalities Move to Networked Next-Gen 911 System In the foothills of Northern California, five counties are coming together to complete a joint city networking project. Through an intergovernmental agency agreement (IAA) the cities of Auburn, Lincoln, Rocklin and Roseville will be linked with Placer County in a next-generation 9-1-1 system. The new networked 9-1-1 system will allow agencies in all five counties to accept streaming video, text messages, and voice calls. The state has awarded \$1.76 million for the project.	Multiple counties linked with another county in a NG911 system. The new system will allow agencies in all counties to accept text, video, and voice. The new, consolidated system was funded by the state, and is expected to lead to costs savings.
AL	NG911 Operations & Improvements	Special Report: AL taking 911 to the next level Alabama has made tremendous strides in efforts to have the most up-to-date technology in its 88 9-1-1 districts. The Alabama 9-1-1 Board is currently working to roll out a statewide system. The state completed the first phase of its migration to NG911 with ANGEN, the Alabama Next Generation Emergency Network. Statewide, all wireless 9-1-1 calls are on the network. The state is now taking bids to contract with a company and move forward with implementing the rest of NG911 capability. A 9-1-1 law passed in Alabama in 2012 has provided a stable revenue stream based on the existing 9-1-1 surcharges in each of the state's 88 9-1-1 districts.	This example showcases the power of having a bill that establishes a solid revenue stream.
IL	NG911 Operations & Improvements	Southern Illinois counties receive national recognition for 911 Call system The counties of southern Illinois were presented the "Outstanding 911 Call Center/Program" award at the Next Generation 911 (NG911) awards ceremony held in February. The southern Illinois counties are now receiving national recognition for their 911 Call Center system. The NG911 system is the first advanced 911 system of its kind in the U.S. This 911 system not only accepts 911 calls, but text messages, automatic crash notifications from vehicles with systems like "On Star," pictures and streaming video. The system was paid for mainly by grants, state funding, and local taxes.	This example showcases how multiple funding sources can be utilized to advance 9-1-1 services.
IN	NG911 Operations & Improvements	Next Generation 911 More than \$10M has been spent to improve 9-1-1 emergency communications in St. Joseph County, Indiana. The county is forming a county-wide department that will be housed at a new "next generation" 9-1-1 center. St. Joseph County, along with the cities of Mishawaka and South Bend, will share the responsibility of funding the center at pro-rated rates. For instance, operating expenses, the county pays about 45 percent, South Bend about 35 percent and Mishawaka about 17 percent.	The new center will not only allow everyone to be on the same system, but it will give dispatchers the ability to see what is happening in real time, and send the most appropriate and quickest responder to a scene.

2016 Funding and Sustainment Methods

State	Category	Method	Intended Impact
NM	NG911 Operations & Improvements	Ribbon-cutting marks completion of 911 center Las Cruces, New Mexico recently celebrated the near-completion of a new \$8.25 million 9-1-1 center. Voters countywide OK'd a bond issue for about \$6 million toward the new 911 call center in mid-2013. State lawmakers pitched in additional funding.	The new facility will go a long way toward improved communications for responders and the public.
IL	NG911 (Text-to-911) Mandated	Winnebago County to move to Next Generation 911 system Winnebago County, Illinois residents could soon have more ways to request emergency help from first responders. The county wants to implement a new phone system network that will allow residents to send text and video messages to 911 operators. The move is part of the Next Generation 911. By state mandate, all local 911 agencies throughout Illinois must become compliant with the next generation software by July 2020. The change could allow first responders to see exactly what is happening on the scene of an accident or crime in progress. The upgraded “state of the art” system will help improve communication between residents and responders and could improve response times. Winnebago is one of 10 counties in the Northern Illinois Next Generation Alliance, which means officials will be able to get started with the new system for \$108,000. The current phone network is at the end of its life and the cost for replacement hardware alone would be about \$2.5 million.	The 911 Northern Illinois Next Generation Alliance — made up of Winnebago, Stephenson, Ogle, Lee, Jo Daviess, DeKalb, Carroll, Boone, Bureau and McHenry counties — will work together to determine how much the new equipment will cost and how to generate the cash. The idea is that with this many agencies working together, they may be able to share equipment, purchase materials in bulk at cheaper prices and work out any kinks in the system together.
CT	Upgrade of 9-1-1 to Statewide NG911	Connecticut Is Replacing Its Outdated 911 Technology Connecticut is one of several states in the process of upgrading its emergency system. It will replace the outdated operation, which was built to respond to landline calls and bring the system into the 21st century using new technology known as Next Generation 911. The new system is already being implemented in Connecticut. The upgrade will allow dispatchers to accept text and video messages and eventually be able to pinpoint the exact location of a cell phone caller.	This is a statewide deployment of NG911.
CT KS	Deploying NG911	Two States Two Approaches (How Connecticut and Kansas are Managing NG911 Build-out) – This article details the deployment approach (pilot projects) and funding approach Connecticut and Kansas are using to deploy NG911.	Showcases how different states are managing the build-out of NG911 systems

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State	Category	Method	Intended Impact
FL	Statewide Communications Network	Harris Corp. Wins \$700 Million Statewide Communications Contract Melbourne-based Harris Corp. announced it has entered into a \$700 million contract with Florida to provide a statewide communications network that will link public safety, law enforcement, public schools and other state and local government agencies. The Harris contract just won, called MyFloridaNet-2 or MFN-2, connects more than 4,000 sites and provides approximately 4,700 connections via a secure statewide communications infrastructure using the Harris Trusted Enterprise Network. That network is a dedicated, private-core backbone managed and operated by Harris from its primary network operations center in Melbourne.	By implementing this state-wide communications infrastructure, Florida's state and local agencies will be connected so they can work together seamlessly and efficiently, whether in emergency situations or conducting routine business
WY	Emergency Services Operations & Improvements	Public Safety Center Near Completion The Laramie County Public Safety Center in Cheyenne, Wyoming is now 80% complete. The nearly 27 million dollar project will connect a number of emergency services, including the Cheyenne Police Department, Cheyenne Fire and Rescue, Administrative Office, Laramie County Communications Center and Laramie County Emergency Management. The Laramie County Public Safety Center is funded by the 5th Penny Sales and Use Tax. This tax has been around since 1978 and must be renewed every four years by voters.	The 5th Penny Sales and Use Tax provides an important tool for funding community initiatives, in addition to providing leverage to receive additional funds through grants.
CA	Emergency Services Operations & Improvements	Access to radio tower to improve emergency communications, save money Access to a radio tower in Marina, California will help improve emergency communications in Monterey County at a lower cost. Monterey County reached an agreement with Marina Coast Water District to use the Sprint telecommunications tower on their site. Emergency services in the county will now be able to utilize a high-tech communication system through the Next Generation Radio Project. The agreement also saves the county \$90,000, waiving a previous Sprint sublease fee for space on the tower.	To save money, this California county partnered with a local water district to share infrastructure. The agreement will save the county \$90,000 and waives a sublease fee from Sprint for using the tower.
PA	Emergency Services Operations & Improvements	County Dedicates New Public Safety Building Lawrence County, Pennsylvania opened a new state of the art public safety building. The building cost \$6.5 million. The new building is the largest capital undertaking the county has commissioned in a quarter of a century. The commissioners in 2014 floated a bond issue to pay for the building. Upgraded communications cost another \$1 million, which is being paid for largely with 9-1-1 funding.	Lawrence County shows how some counties are using multiple sources of funding to complete big projects that will ensure front-line workers — police officers, firefighters, EMS workers and volunteer EMA coordinators — will have reliable countywide communications.

2016 Funding and Sustainment Methods

State	Category	Method	Intended Impact
CT	Emergency Services Operations & Improvements	Madison Moves Forward with EMS Communications Upgrade Efforts to improve Madison, Connecticut's Emergency Medical Services (EMS) Communication system are now underway. In June 2016, the board voted to move forward and sign a lease with Motorola Solutions, Inc., for the purchase of new radio equipment. The initial engineering cost of the project was somewhere in the area of \$3.6 million, but the town found ways to reduce costs to bring the project estimate to \$1.8 million.	This example how a phased approach to replacing communications systems can result in a long-term financial planning tool for installing upgrades.
GA	9-1-1 Center Upgrade and LMR Encryption	County Police Radio Will Open Communications Glynn County's basic police communications will soon become public again. Police communications went silent on June 8, 2016 when the Brunswick-Glynn 911 Center completed a \$4.5 million upgrade from the old analog radio system to a more technically sophisticated digital system. In the process, county police and Brunswick Police went to encrypted channels, which blocked radio traffic to those with private emergency radio scanners.	This shows how an update to a 9-1-1 digital system also included a move to encrypt police channels which blocked radio traffic for those with private scanners.
PA	Disbanding local EMS saves costs	Disbanding EMS Service in Line With National Trend The Bath, Pennsylvania firefighting department is a volunteer organization made up of about 35 members. Of those members, only seven were trained emergency medical technicians. The department only had the capabilities to provide basic life support services and was so small a half-dozen staffers were working five days a week from 6 p.m. to midnight to cover calls. Facing mounting financial losses and a burned-out volunteer staff, Bath, Pa., is prepared to end its EMS service for good. The borough's roughly 2,700 residents will be served by the Bethlehem Township EMS. A resolution to make the transfer official is still in the works, but the plan is to switch to Bethlehem Township services starting in October. The township EMS will work out a leasing agreement with the borough to operate out of the Bath Firefighters and Ambulance Corps' facility on Center Street.	This highlights the value in seeking and achieving economies of scale in firefighting and EMS services.
UT	Single 9-1-1 Dispatch System	Salt Lake County to finally have just one 911 dispatch system Salt Lake County in Utah is upgrading to a single computer-aided dispatch system. The \$13 million dispatch system will be able to handle 1 million 9-1-1 calls a year. Over the next year and a half, new hardware will be installed in every machine used by dispatchers, firefighters, police officers and paramedics. Training also will be provided to those responders. Much of the funding for the \$13 million system will come from the Legislature. Salt Lake County is paying \$1.4 million, federal Homeland Security officials are pitching in \$177,000 and another \$5 million has been rounded up through contributions and discounts.	This example shows how multiple funding sources were used to pay for a single, statewide dispatch center for 9-1-1.

2016 Funding and Sustainment Methods

State	Category	Method	Intended Impact
SC	Upgrades to 911 System	Chesterfield County, South Carolina Upgrades 911 System Chesterfield County, South Carolina has strengthened its E911 system. The county tapped Connecticut-based PowerPhone for its call handling solution. The new system includes upgraded software, operations, and training for emergency dispatch staff. Total Response utilizes integrated call handling protocols covering police, fire, and emergency medical subject matters. The new system is compatible with Chesterfield County E911's current computer-aided dispatch system (Southern Software CAD). An interface allows for the seamless communication between 911 call handlers and dispatched emergency responders, meaning responders arrive on scene more prepared and with a clearer picture of the emergency ahead of time.	The article notes that several states are working through updates to their 911 calling systems in an effort to replace legacy solutions and get ready for the voice and data transfer capabilities included in FirstNet. NENA has recommended nationwide upgrades to improve call handling and deal with calls coming in from cell phones and other devices, but implementation has been spotty at best.
MD	Upgrades to 911 Equipment	\$4 Million in State Grants to Help Baltimore County, Md., with 911 Upgrades Baltimore County will receive \$4 million from the state to upgrade its 911 equipment. The Baltimore County Council formally approved acceptance of the state grant Tuesday. The money comes from the state's Emergency Number Systems Board, which collects a fee from phone users. The phone system upgrades are funded by the state's 911 Trust Fund, administered by the Emergency Systems Numbers Board. For people with monthly phone bills, \$1 is collected on each bill for the fund. Users of prepaid phones pay 60 cents into the fund when they buy their phones. Seventy-five percent of the money in the 911 Trust Fund goes to local governments to support operating costs of 911 centers, and 25 percent is for upgrades such as the new phones.	The upgrade will allow operators to receive texts, photos and videos and to provide better locational data that can improve emergency responses by ensuring that callers are directed to the right dispatchers.
NY	PSAP Operations	GLOW counties split \$680,000 for E-911 costs More than \$680,000 was awarded by the New York State Division of Homeland Security and Emergency Services to the GLOW counties in support of emergency response operations. Public Safety Answering Points (PSAPs) operations grants reimburse counties for public safety call-taking and dispatching expenses. Livingston County had the area's largest grant, at \$205,512; followed by Genesee, \$187,497; Wyoming, \$153,848; and Orleans, \$134,049. Monies were distributed among participating counties based on statistics reflective of a county's operational scope, demographics and emergency services call metrics.	These types of grants not only help county operators offset day-to-day expenses, but also fosters upgrades in new technology.

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State	Category	Method	Intended Impact
AZ	Wireless Broadband/ SmartCity	Phoenix Convention Center's Public Safety System Gets Final Approval Smart City Networks has received final approval for a public-safety distributed antenna system (DAS) it installed last year at the Phoenix Convention Center. Smart City Networks partnered with system integration firm Connectivity Wireless Solutions (CWS) to design, install, manage and commission the customized, turnkey system that ensures first responders can maintain communication with each other in case of an emergency.	This shows how a Convention Center is improving public safety communications through advanced technologies (DAS). DAS helps to boost signal strength, eliminate dead zones and remove interference from phone/radio frequency signals
NJ	Broadband	New Jersey Police Department Deploys Cradlepoint System The Ewing (New Jersey) Police Department is leveraging Cradlepoint's software-defined Long Term Evolution (LTE) solutions to provide in-vehicle connectivity for its officers in the field. The system allows the Ewing Police Department to create a secure end-to-end private network in the cloud over wired and wireless broadband Internet leveraging Cradlepoint's technology. Officers have instant, resilient and secure network connectivity while accessing critical online systems no matter where they are.	The solutions enable the police department to streamline network and fleet management with the ability to efficiently configure, monitor and manage all of its devices from one central location.
FL	Broadband	Motorola Solutions announces new mobile radio, enhancements to its P25 platform Motorola Solutions unveiled a new P25 mobile radio that operates on its ASTRO 25 systems. One of the key features of the APX 8500 all-band mobile radio is its ability to leverage LTE connectivity from a VML750 modem installed in the public-safety vehicle. During a major incident, voice communications can continue over the ASTRO network, while data communications, if the ASTRO network is too busy due to the major incident, can be carried on by an LTE network from the same public-safety vehicle.	The ASTRO 25 software will provide system users and operators with improved reliability and usability of the P25 network.

*This document is available online on the Department of Homeland Security SAFECOM Funding web page at <https://www.dhs.gov/safecom/funding>.